



Belmont Citizens Forum

Vol. 7, No. 6

A Newsletter for Belmont Residents

November 2006

Obstacles Delay Belmont, Alewife Bike Paths

By Ava Cheloff

Spend an hour in Lexington Center on a pleasant weekend afternoon. The number of bicyclists dipping into stores for a latte or a sandwich is staggering. Many of them are in Lexington because of the safe and pleasant riding on the Minuteman Bikeway that skirts Lexington’s downtown.

Suburban communities such as Weston, Massachusetts have scorned bike paths with classic “not in my backyard” thinking. Residents express fears about safety, excessive littering, and “attracting riff-raff.” But the experience of Arlington and Lexington with the Minuteman Trail demonstrates the opposite. Bike paths add vibrancy to a community.

Safe bicycle paths contribute to a sense that a community is “a happening place.” They attract a surprisingly diverse crowd of out-of-towners who bring economic benefits to local business. Bikeways also encourage bicycle commuting, a boon to the environment and to community health.

There has been talk for years about developing a rail trail through Belmont. Why do we still not have a safe bike trail? Two separate projects are needed to develop a bike trail through Belmont. The physical division point between the two is the railroad crossing on Brighton Street, by the White Hen Pantry.

The Belmont-Somerville Minuteman Extension

To the east of the Brighton Street railroad crossing is an unpaved trail in poor condition that leads to the Alewife T station. The trail starts along the north side of the commuter rail track but soon veers off to parallel the Little River along the south side of the

Alewife Reservation. At times, it is quite lovely. Unfortunately, it is also prone to mud and puddles. Sections of the trail are too narrow to accommodate two bicyclists.

Significant improvements to this bike path have long been in the state budget as part of the Belmont-Somerville Minuteman Trail extension. State Representative Anne Paulsen has played a major role in championing this project and keeping it alive through years of inertia at the state level. This project, which is managed by the Massachusetts Highway Department, provides both for improving the existing Linear Park trail between the Alewife T station and Davis Square and for constructing a finished bike path between the Alewife T station and Brighton Street.

On reason the Belmont project has been delayed is that it is being treated as part of a larger Somerville-to-Belmont bike path. Designs for both the Alewife-to-Somerville segment and the Alewife-to-Belmont path need to be complete before construction starts.

continued on page 5

In This Issue

Environmental Events	2
Nonprofit, Neighbors Plan for Local Lots . . .	3
Great Swamp Survivs in Little Pond	7
Sewer Regs May Make Challenges Hard . .	12
What’s the Cost to Fix Belmont's Sewers? . .	16

Environmental Events Calendar

By Michael Stratford

Winter Wildflower Identification. Sunday, November 19, 1-3 pm. Explore how to identify wildflowers in winter by using dried stalks and seed-heads. This free Friends of Fresh Pond Reservation program will also teach attendees how to use the “Winter Weed Finder” by Dorcas Miller. Copies are available to borrow or purchase for \$4 each. Meet at the Water Treatment Facility at 250 Fresh Pond Parkway, Cambridge. Dress for spending time outside and off-path. For more information or to register, contact Elizabeth Wylde at friendsoffreshpond@yahoo.com or 617-349-4793.

A Northeast Sector Virtual Walkabout. Monday, November 27, 6-7:30 pm. Join Chip Norton, Cambridge Water Department Watershed Manager for a virtual tour of Fresh Pond Reservation’s Northeast Sector Project at the Water Department’s Training Room. Using maps, diagrams, and photographic

slides, Norton will illustrate the current state and long-term goals of this major restoration project as well as answer questions. No walking is required for this free Friends of Fresh Pond Reservation event. Meet at the front door of the Water Treatment Facility, 250 Fresh Pond Parkway, Cambridge. For more information or to register, contact Elizabeth Wylde at friendsoffreshpond@yahoo.com or 617-349-4793.

Pre-Christmas Bird Count Walk at Lower Vine Brook. Saturday, December 9, 9-11 am. Join Keith Ohmart and the Citizens for Lexington Conservation as they survey Lexington’s wintering bird species in preparation for the annual Christmas Bird Count. Walk the bike path along Lower Vine Brook noting winter habits and feeding patterns while keeping an eye out for late season vagrants. Meet at Hayes Lane and Grant Street in Lexington. For more information, contact Andrea Golden at 781-646-3941.

Moon Magic. Tuesday, December 5, 4-5:30 pm. Come and share the magic of a bright, full moon in a clear sky during this late afternoon program at Habitat. Learn some simple astronomy concepts, moon lore, and amazing facts about our planet’s only natural satellite. This event is recommended for children ages 3-8 as well as adults. Meet at 10 Juniper Road, Belmont and dress warmly. The cost is \$6 for each adult and child member (\$8 for non-members). Call 617-489-5050 for more information and to register.

Second Annual New Year’s Day Walk. Monday, January 1, 11 am-noon. Join the Waltham Land Trust for this traditional, invigorating hike to Boston Rock in Prospect Hill Park. Warm up with hot chocolate and other refreshments at the summit before the return hike. Meet at Prospect Hill Park South Entrance in Waltham. For more information, contact Karen Patterson at kpatters@walthamlandtrust.org or 781-893-3355.



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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 on key subjects.

Our newsletter is published six times a year (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
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Nonprofit, Neighbors Make Plans for Local Lots

By Sue Bass

A nonprofit would like to build affordable housing on the Our Lady of Mercy church property on Belmont Street, and neighbors are asking the town to help fill the long-vacant Murray Sandler Skate property on Concord Avenue. But unlike the proposed Cushing Square overlay district, which is on the warrant for the November 13 Town Meeting, the Our Lady of Mercy and Murray Sandler issues won't reach Town Meeting before spring. (See "Cushing Square May Launch Business Rezoning," Belmont Citizens Forum Newsletter, July 2006.)

Nonprofit Seeks Our Lady of Mercy Site

The Massachusetts Housing Opportunities Corp. (MHOC), a nonprofit that builds affordable housing, is considering purchase of the Our Lady of Mercy site. The site includes not only the church but also the rectory, the former parish hall that now houses Belmont's Senior Center, and the parking lot. MHOC is currently building similar projects in Harvard, Sterling, Sutton, and North Andover, according to Michael Ivas, the organization's vice president.

Ivas said the Our Lady of Mercy proposal is at the very early stages. "We're not in a position to spend thousands of dollars [on plans] until we know we can secure the property," he said. "They say there

are other criteria than price ... We'd like to be the ones with neighborhood support." Jim Belli of the Codman Company, broker for the Our Lady of Mercy property, said the sale is on hold right now. Shortly after the for-sale announcement was made in September, the archdiocese asked his firm to postpone marketing the property for a while. Joseph Williams, a real-estate consultant for the archdiocese, explained that the parish hall might be withdrawn from the sale—he doesn't know why—and retained by the church. "We won't know until Cardinal Sean [O'Malley] and his advisors make the decision."

When sales efforts resume, Belli said, the Codman Company will send out an offering memo and open a 90-day period during which potential purchasers can tour the property. At the end of that period, the broker will put out a call for offers by a specific date. The offers will have to include information about the intended use of the site.

In several of its other developments, MHOC has taken advantage of a recently passed state zoning law known as Chapter 40R, which encourages the creation of smart-growth zoning districts that include affordable-housing units. Joanna Hilgenberg of Belmont's Oakley Neighborhood Association said the Association is "going to try to move ahead with a 40R overlay in the spring because the town has much more control with 40R. There is a limit on the number of

continued on page 4



Sandler Lot

Lots continued from page 3

units per acre.” Jay Szklut, Belmont’s planning and economic development manager, said that if a 40R development is proposed for the Our Lady of Mercy properties, a Town Meeting vote would be required to pass an overlay district.

Neighbors Organize to Fill Skate Shop Lot

On October 24, a group called Concord Avenue Neighbors met with the Belmont Planning Board to ask for help with the long-vacant Murray Sandler Skate Shop property and the closed gas station next door. Steve Tomczyk, a Town Meeting member from Precinct 1, said the group had formed several years ago when a Walgreens was proposed for the property. “We got about 400 signatures on a petition, and the developer withdrew his proposal,” Tomczyk recalled.

Tomczyk said the neighbors would like the town to plan ahead. “Shouldn’t there be some sort of process that would define what makes sense?” asked Patrick Brennan of Trowbridge Street, also a member of the group. Bill Ellet of Watson Road noted that future development of the Sandler lot could surprise the town. “Someone could come in tomorrow with a proposal to put a mini-Kmart there.”

Szklut wondered if a visioning process for the would help to balance neighborhood and town interests. He said he had urged the Concord Avenue Neighbors group to come to the Planning Board so the board could decide whether it was appropriate for him to work with them. “If I’m hearing the neighbors correctly, they’re asking for some assistance,” Szklut said. At the October 24 meeting, the board agreed that Szklut should work with the group. Planning Board member Jenny Fallon, who lives nearby, said she would also help.

Part of the discussion involved traffic problems, including what Ellet called “the death-defying intersection at Bright Road [and Concord Avenue].” Planning Board members urged the neighbors to talk to the Traffic Advisory Committee about those problems. Anthony Piacitelli of Hamilton Road said that drivers from Cambridge “think it’s a race track. I’ve seen the kids,” he said. “They’re terrified.”

A larger question is what area should be covered by the visioning process. “It’s not just Sandler but the whole strip from Beth El Temple to the high school,” Tomczyk said. Szklut wondered if the study area should include the Purecoat North (formerly Cambridge Plating) factory as well. “Is the problem any factory, or is it toxic emissions?” he asked. Said Ellet, “We need to define the community. We all live on islands. The archipelago would like to come together.”

—Sue Bass is a director of the Belmont Citizens Forum.



Bike Paths *continued from page 1*

The Alewife to Somerville portion of the project is more complicated than the Belmont path. The Alewife-Brighton route will run largely on the route of the existing trail. By contrast, the Somerville portion of the path involves bike-trail crossings of major roads, particularly Massachusetts Avenue. Since Somerville's trail is already paved, its supporters may lack the sense of urgency that Belmont residents have. As a result, a strong consensus on the design for Somerville has been slow to develop.

Over the years, attempts have been made to separate out the Belmont portion of the project so that Mass Highway could complete it more quickly. At this point, Rep. Paulsen suggests that the cumulative pressure of all three communities — Belmont, Cambridge, and Somerville — will be most effective at compelling the state to complete the work.

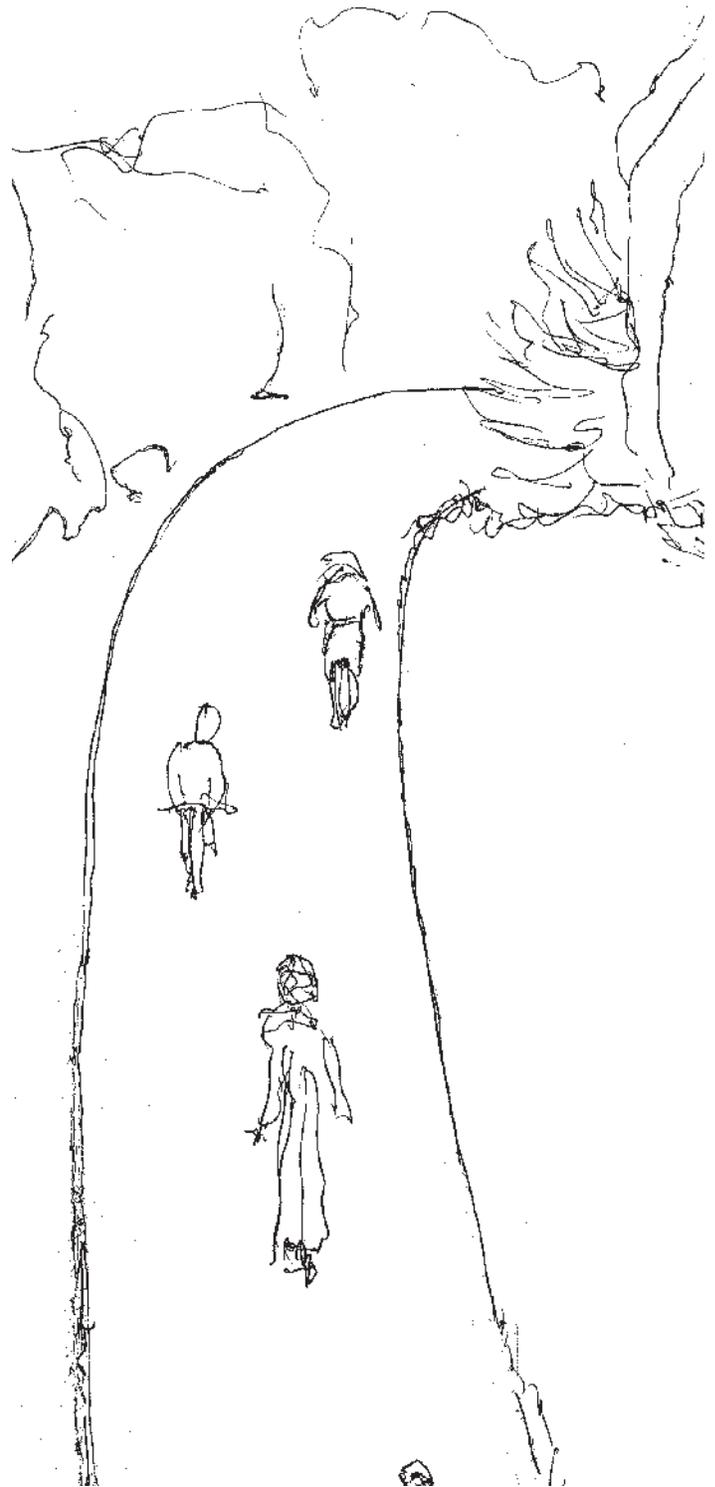
The good news is that people involved with the project report recent activity and momentum. Jeff Conti, Belmont's Assistant Town Administrator, is actively working with his peers in Cambridge and Somerville to complete plans so that the project can be put out to bid. According to Steve Winslow, a long-time bike path activist currently working with the City of Somerville on their Community Path project, the Belmont-Somerville project has reached 75% design completion. It should be going out to bid for construction in late 2007.

Bike Trail from Brighton Street to Berlin

To the west of the rail crossing on Brighton Street is a vision — or competing visions — that could lead bicyclists across Belmont to bike paths in Waltham.

Having a safe route across Belmont is a vital part of plans for the Massachusetts Central Rail Trail, which will eventually run for more than 100 miles from NorthPoint Park in Cambridge to Northampton along the path of the long defunct Massachusetts Central Railroad. Approximately 25 miles of the 100 miles have already been constructed. Local trail projects are underway along many other segments of the route, including the Wayside Rail Trail, the eastern portion of the trail that runs from Cambridge to Berlin.

Determining the path across Belmont is complicated. Any route will include some travel on city streets, raising concerns of local residents as well



as issues of rider safety. Several routes are being discussed for the stretch between Brighton Street and Belmont Center.

Bike Paths *continued from page 5*

Alternative 1 – Follow the railroad tracks to Belmont Center

Advantages:

- This segment of the trail is entirely off-road and crosses Belmont Center.

Challenges:

- The MBTA sold the land beside the tracks to private individuals many years ago. A bicycle trail would need to secure easements or, potentially, purchase some of the property.
- In the past, local residents have raised objections to having a bike path in their back yards.
- Getting bicyclists off the trail in Belmont Center and onto Pleasant Street (or onto roads that lead to Pleasant Street) is not straightforward, because it requires crossing the commuter rail tracks. No alternative is ideal; this option will involve significant planning.

Alternative 2 – Use streets around the high school and Concord Avenue to get bicyclists to Belmont Center

Advantages:

- There are no rights-of-way to buy or abutters to please along the route. All it would take is some planning, signs, and paint. It could be a good temporary solution until a real trail is set up along another route.

DCR TO DISCUSS NEW ALEWIFE BIKE PATH

On Monday, November 20, the Massachusetts Department of Conservation and Recreation will present a design for a new DCR pathway that will provide a key connection between the Minuteman Bikeway and the Mystic River Reservation and discuss a new path through the Reservation. The meeting will be held from 6:30-8:30 pm at the Arlington Robbins Library Seminar Room, 700 Massachusetts Avenue, Arlington.

Challenges:

- Again, we have the problem of safely routing bicyclists around Belmont Center. Having dozens of cyclists pouring into the unstructured intersection of Concord, Leonard, and Common streets poses a safety risk.
- This approach puts bicyclists on city streets for a longer stretch.

Alternative 3 - Use Channing Road to get bicyclists to Belmont Center

Advantages:

- Like the Concord Avenue Route, this path could be set up quickly on city streets.
- Channing is a quieter street than Concord Avenue. Bicyclists would have less risk of colliding with cars.

Disadvantages:

- This route requires an easement to allow bicyclists to pass directly from Brighton Street to the east end of Channing Road — which means it would take time to set up.

What to do?

As Selectman Will Brownsberger points out, this problem is not a political one — it's a local engineering problem. We have the people in Belmont who can help surmount these challenges.

Rep. Paulsen reports that there will be a major push to work on the Massachusetts Central Rail Trail in the next year or so. "We don't want Belmont to stand in the way of this," she said. "We need to come up with a safe route through town to connect with trails in Waltham."

One route to Waltham is through the McLean property. In their memorandum of agreement with the town, McLean's developers agreed to an easement for a bike path. Proceeding with a path would require further negotiations with McLean.

Interested citizens should check in regularly with town officials and their state representative about the status of this project. Having our elected representatives maintain pressure on Mass Highway will be key to getting a bike path built at last.

—Ava Cheloff is a precinct 7 Town Meeting member and an avid cyclist who looks forward to the creation of a bike path through Belmont.

Great Swamp Survives in Little Pond

By Meg Muckenhoupt

Little Pond is an 18-acre pond in east Belmont. It is bordered to the northwest by Oliver Road, to the north by Route 2, to the east by the Belmont Uplands and Pond Street, and to the southwest by Brighton Street. Curious boaters can access the pond from a decrepit dock located at the end of a path between Larch Circle and Sandrick Road. The pond also abuts the Alewife Reservation, 115 acres of watery wildlife habitat owned by the Massachusetts Department of Conservation and Recreation.

Geologically, Little Pond lies in the Boston Basin, a giant bowl with granite hills at its rim. Sheila G. Cook writes in her book *The Great Swamp of Arlington, Belmont, and Cambridge* that when glaciers receded from eastern Massachusetts, they left hills of rocks and soil called moraine around Fresh Pond. Northwest of Huron Avenue, the glacier left enormous chunks of ice and shoveled out a large,

level basin. When the ice hunks melted, lakes formed — including Fresh Pond, Spy Pond, and Little Pond. The glaciers left the Great Swamp with a 50-foot layer of blue clay that is perfect for making bricks.

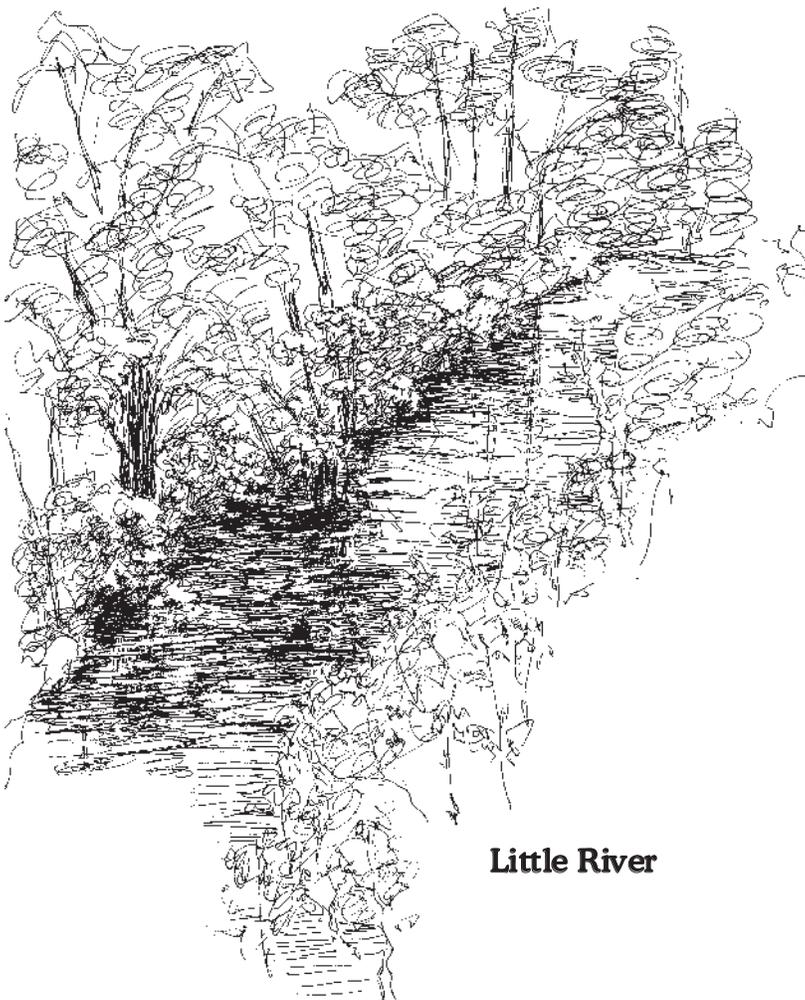
The moraine hills prevented runoff from Belmont and Arlington's high points from flowing to the Charles River, Cook says; instead, the water was forced to flow slowly across a level plain towards the Mystic River. When Europeans colonized the area in the 1600s, the entire region was "a water-logged landscape of swamps," according to Cook. A map of the area as it appeared in 1631 is nearly unrecognizable. The swamp has almost disappeared due to drainage. The Little River, which now flows east into Alewife Brook, then flowed north into the Menotomy River.

What Goes On in Little Pond?

As the Friends of Alewife Reservation wrote in their 2003 *Biodiversity Study of Alewife Reservation Area*, "The rest of the lowland area in the vicinity [of Alewife] has been filled and built upon over the centuries, leaving only the extreme lowland adjacent to the Little River in a somewhat natural state... Despite the highly polluted condition of the water, it does sustain life both within it and along its edges."

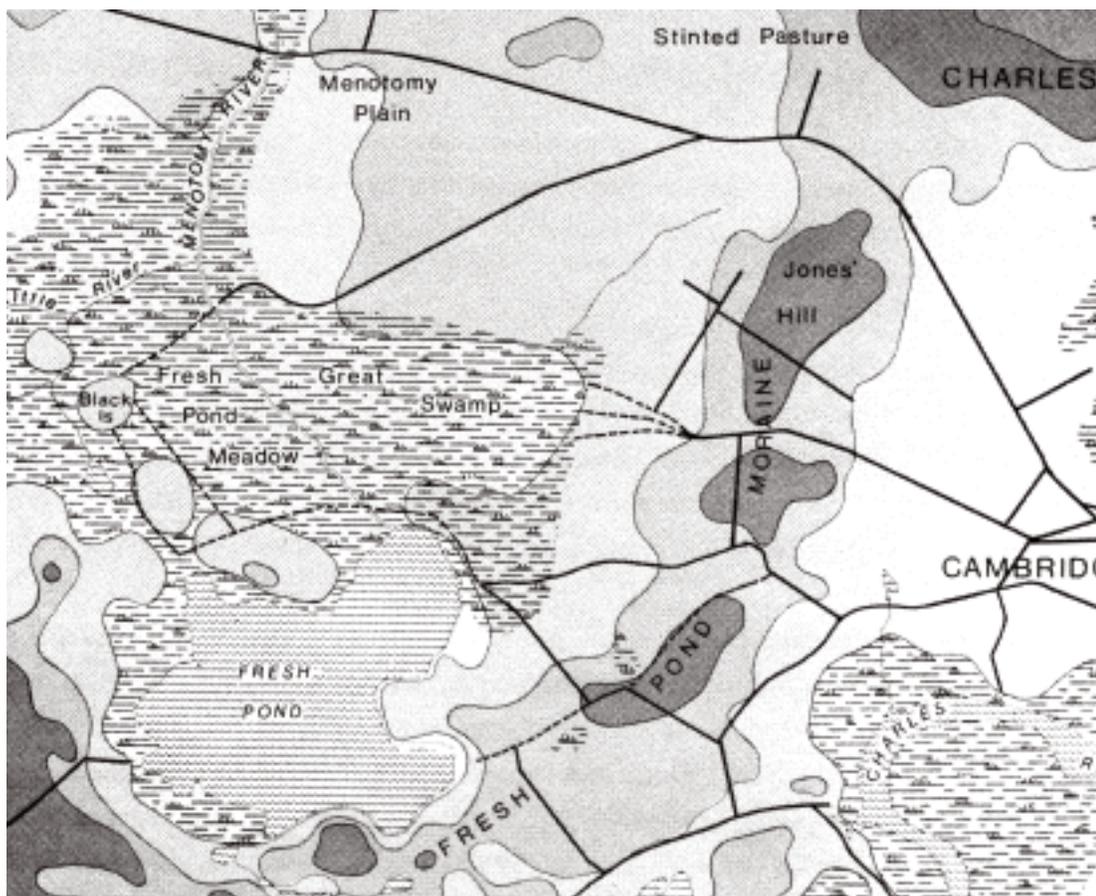
According to the 1995 *Fishing Guide to South Middlesex Ponds*, Little Pond hosts largemouth bass, pickerel, and carp "to 15 pounds plus."

Little Pond's Canada geese wander into grassy backyards - backyards that do not have a buffer of wetlands vegetation to protect their banks from erosion. Steeper banks to the south host sumac, poison ivy, and wild grapes. Songbirds stop to drink and rest during their migrations. The wilder shoreline of the Uplands side has cattails and other wetlands plants; downed trees at the water's edge protect fishes' underwater nests and eggs. Herons, gulls, and carp gather where the conduit from Spy Pond enters Little Pond, possibly indicating contamination, according to the Friends of the Alewife Reservation's 2000 *Shoreline Survey*; these species thrive in polluted waters.



Little River

continued on page 8



The swamps of Alewife ca. 1631. Detail of map by Eliza McClellan, Cambridge Historical Commission. Courtesy of Cambridge Historical Commission.

European settlement, Pawtuckeog Indians lived near Alewife and established a permanent winter camp downstream where the Alewife Brook merges with the Mystic River. As the weather warmed, they would move to seasonal camps along the shores of Little Pond and Spy Pond to hunt waterfowl and to fish for alewives and blueback herring returning from the ocean to spawn.

When Europeans arrived, they quickly cleared all the sunny, well-drained upland areas for farming. As the population grew, farms expanded into the

Little Pond continued from page 7

Little Pond also hosts a variety of commuting animals that live in water but also need dry land. The *Biodiversity Study* states, “Many wild animals require space and seclusion from interaction... Large areas for denning and resting during the day are important for these wild animals... The [Uplands] area's great advantage to terrestrial mammals is its isolation from human visitation and consequently from pets.”

The *Biodiversity Study* authors noted muskrat at Little Pond, adding, “It seemed healthy despite the condition of the water.” The same study found Little Pond hosts plenty of other occasional landlubbers who need at least 100 feet of undisturbed dry habitat to survive: beaver, who need trees to eat; mink who eat fish, crayfish, voles, rabbits, and muskrats; painted and snapping turtles; and wood ducks.

What Goes on Next to Little Pond?

According to the Massachusetts Department of Conservation and Recreation's 2003 *Alewife Reservation and Alewife Brook Master Plan*, prior to

Great Swamp. At first, the area was used for pasture; later, ditches were dug to drain the area, and orchards were planted. After the American Revolution, industrious Yankees started harvesting ice from Little Pond — ice that was shipped as far as Singapore. Fresh Pond became a bucolic day trip for city-weary Bostonians, but the rest of the Great Swamp gradually became a festering industrial wasteland. After all, no one of importance would live next to a swamp, so all the less pleasant businesses that supply cities — slaughterhouses, tanneries, glue factories, and other smelly manufacturing — located on the Great Swamp's shores. Sewage from the ice houses' workers and mules also seeped into the water supply. In 1878, Cambridge annexed 570 acres of Belmont surrounding Fresh Pond, ostensibly to protect the reservoir the town had established at Fresh Pond from the Belmont residents' filthy pursuits. In the 20th century, more than 50 toxic waste sites were discovered around the perimeter of the Great Swamp, including the notorious W.R. Grace site. No slaughterhouses remain at Alewife, but dirty industries persist.

In the late 19th century, the New England Brick Company, on the site of what is now Clay Pit Pond,

produced up to 15 million bricks. The local brick industry failed in the early 20th century after the 80-foot-deep pits filled with ground water. The clay industry brought roads, rail lines, and warehouses to Belmont, all built on filled-in Great Swamp.

Over time new railroads brought new residents, and old colonial farms were sold for house lots. By the 1870s, Cook writes, most of the Great Swamp had been filled in, except for stretches of marsh between what are now the Boston and Maine Railroad and Route 2. The damming of the Mystic River in 1909 prevented tidal flows from moving upstream. According to the DCR *Master Plan*, “What had once been a dynamic, tidally influenced marsh became a freshwater wetland in which mosquitoes bred and raised fears of potential malarial outbreaks.” To reduce the number of mosquitoes breeding, between 1909-1912 Alewife Brook was straightened and confined to a concrete culvert so that the water would not seep into the Great Swamp’s plain. The Little River was moved in the 1930’s, and its old route was filled in. The construction of Route 2 brought even more cars and polluted stormwater runoff to Little Pond.

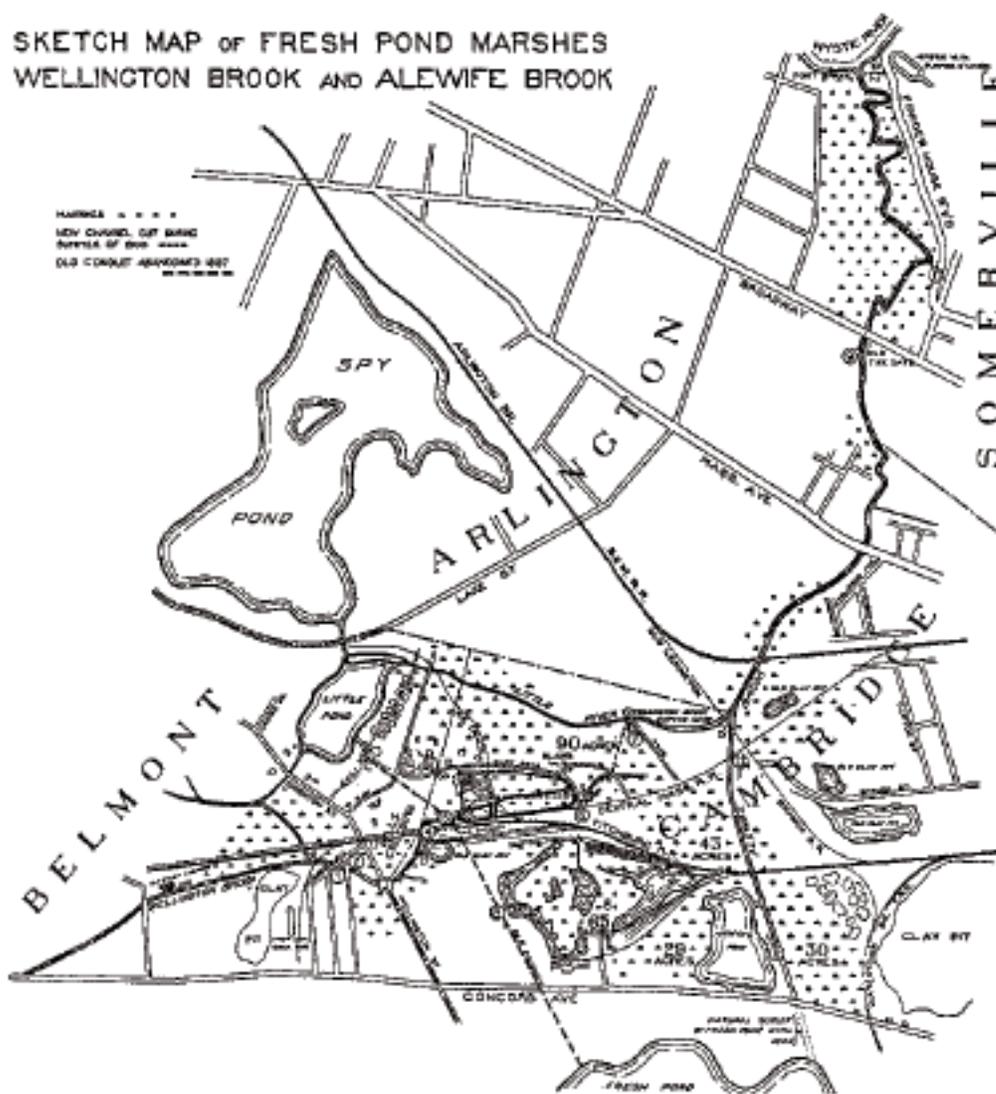
By 1955, the Great Swamp had shrunk from over 1000 acres to 115 acres, losing 90 percent of its surface area. It had been drained, filled, and shifted over and over again. More and more of the surrounding land has been developed and paved, leading to a “flushing” effect. Stormwater rushes into the pond and gets quickly flushed out to sea instead of slowly seeping through the earth

into the groundwater and recharging the pond - that is, refilling the pond with water during dry weather.

How does Little Pond Fit into Alewife?

Little Pond is not just a rectangle surrounded by streets. It is a pond that collects water seeping from the soil in the Uplands and the Winn Brook neighborhood and outflow from Arlington’s Spy Pond, which travel through a conduit under Route 2. Silt may also wash in from Spy Pond; Little Pond has diminished to a mere 18 inches deep in front of the Spy Pond-Little Pond conduit’s flow and is choked with plants, according to the Shoreline Survey. Little Pond’s water flows into Little River to the 2.5-mile-

continued on page 10



Detail of map of Fresh Pond Marshes, Wellington Brook, and Alewife Brook. Map by William Lyman in Technology Quarterly, Vol. XIV, March 1901. Courtesy of Cambridge Historical Commission .

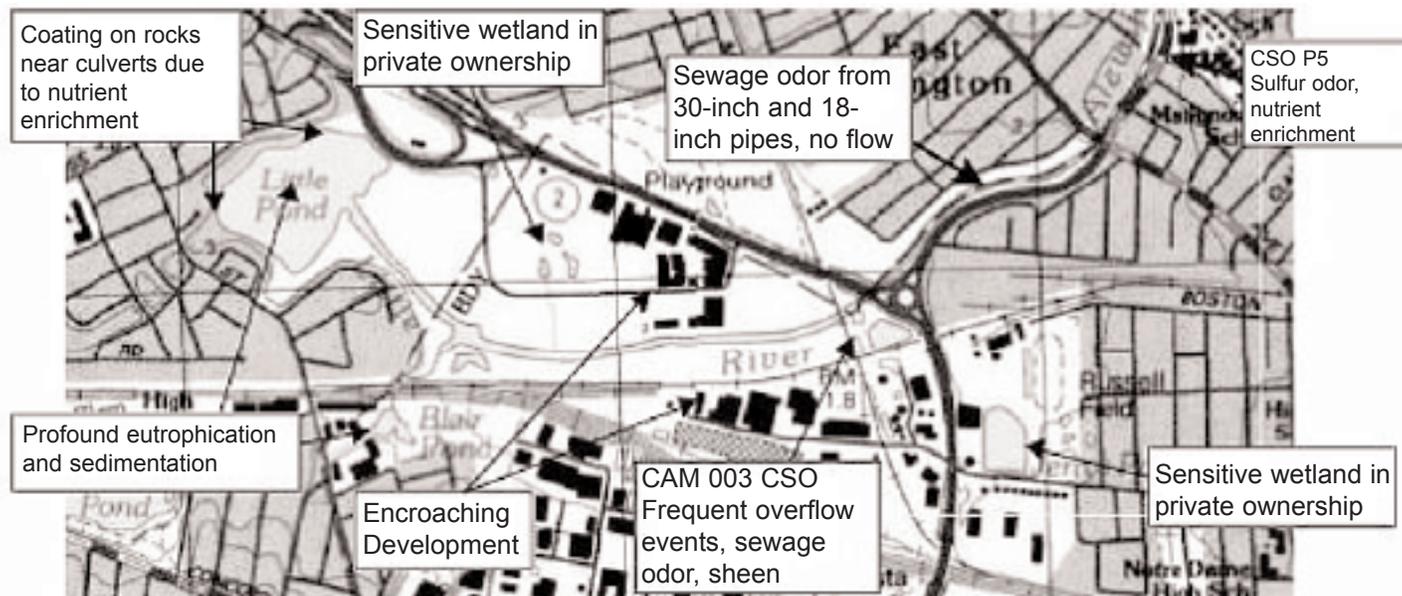
Little Pond *continued from page 9*

long Alewife Brook to the Mystic River to the Atlantic Ocean. According to Cook, Little Pond is barely above sea level; the water level only drops five inches from Alewife to the Mystic River in Everett, and Alewife Brook is below the high tide line in Boston Harbor.

Little Pond is part of the Alewife Brook watershed, which drains nine square miles of land including 72 percent of Belmont. During heavy rains,

Brook outlet do not meet state standards for boating, much less swimming.

The entire Alewife Brook from the Little River to the Mystic River has been declared “impaired or threatened for one or more uses” by the DEP. Because of that, DEP has limited the amount of metals, nutrients (i.e., phosphorous from fertilizers), organic enrichment, pathogens, oil and grease, and “objectionable sediments” that can be discharged into Little River and Alewife Brook.



Descriptions of threats to Little Pond and the Alewife Brook watershed. Courtesy of the Mystic River Watershed Association.

the spongy land around Little Pond absorbs stormwater runoff, then releases that water slowly back into Little Pond during dry times. According to the *Master Plan*, “The slow movement of water through wetlands allows physical, chemical, and biological processes to improve water quality by retaining and removing environmental contaminants such as heavy metals, phosphorous, and nitrogen.”

One of Little Pond’s other contaminants is fecal bacteria, probably because some homeowners in the Winn Brook neighborhood have sanitary sewers illegally connected to storm drains. When it rains, sewage is swept into the stormwater overflow pipes that drain into the pond. The Department of Environmental Protection has ordered Belmont to clean up the sewage flowing into Little Pond. According to sampling by the Mystic River Watershed Association’s volunteer Roger Frymire, water entering Little Pond from the Oliver Road pipe and the Winns

Little Pond’s Future

Pavement will determine Little Pond’s future. A huge percentage of the area that drains into Little Pond and environs is paved. The Concord-Alewife area, for example, is on average 88 percent impermeable, according to the Cambridge Department of Public Works: most of the surface is covered by roofs or pavement. That’s bad news for residents of Winn Brook’s low-lying areas, because a parking lot can produce 16 times more stormwater runoff than a meadow.

The Cambridge DPW’s proposed stormwater guidelines suggest several low-impact development techniques to improve drainage, including retrofitting parking lots to divert runoff to porous landscaping, and using shallow vegetated swales or depressions in place of curbs and gutters. Cambridge has proposed building a 3.7 acre retention pond in the middle of the

Alewife Reservation, which would entail disrupting another four acres of plants around the basin and replacing it with lawn, according to long-time Cambridge water activist Steve Kaiser — all for a basin that Cook characterizes as dry, empty, and ugly 80 percent of the time. The pond is designed to hold water from 10- to 25-year storms — that is, storms that occur on average once every 10 to 25 years.

Unfortunately, according to current definitions, Alewife has experienced four 50-year storms in the past 10 years — in 1996, 1998, 2001, and 2004. Those would overwhelm the system. The storm basin is on hold pending a citizens' appeal of the plan. Of course, if the wetlands hadn't been paved, filled, and channelized, Cambridge would not need to build a retention basin in the middle of a swamp. Now, though, that water has no place to go. According to the Tri-Community Working Group that is investigating the causes of flooding in Arlington, Belmont, and Cambridge, the pipes and culverts that carry water away from the Great Swamp are simply not big enough to hold the volume of stormwater that regularly floods the area. Worse yet, the Union of Concerned Scientists' recent report *Climate Change in the Northeast* predicts a 10 percent increase in severe rainstorms over the next century due to global

warming, with a 20 percent increase in the maximum rainfall that falls in a five-day period in a year.

Little Pond is a kettle pond, formed when an enormous chunk of ice fell off a glacier. Most kettle ponds are deep. However, both Little Pond and the Little River are getting shallower because of silt deposited by the enormous amount of stormwater runoff that pours into them. Kaiser has been measuring the depth of Perch Pond, an section of the Little River halfway between the Little Pond Outlet and the Alewife MBTA station. As of May 2005, Kaiser said, Perch Pond is a mere 14 inches deep — and only 5 inches deep in some areas. Kaiser says that 1982 Federal Emergency Management Agency maps show the pond a full foot deeper. "It's serving as a siltation trap," said Kaiser. "... We may lose it soon." The pond could be dredged if someone will pay for it.

State Senator Robert Havern of Arlington has proposed a moratorium on development until a state can complete a study of the full effects of development along Route 2. This Senate bill 1909 could be a way for the entire watershed to come to appreciate the very big influences on Little Pond.

— Meg Muckenhaupt is Editor of the Belmont Citizens Forum Newsletter.

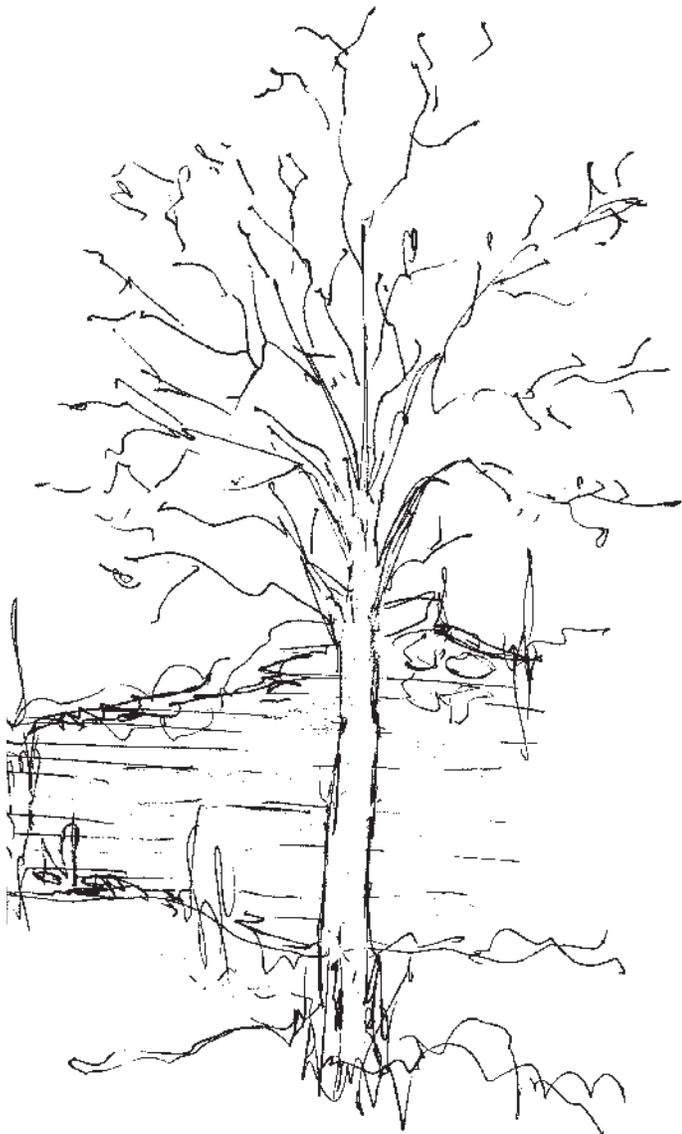


New Sewer Regs May Make Challenges Harder

By Sue Bass

In the waning days of the Romney administration, the Massachusetts Department of Environmental Protection (DEP) has proposed regulations that would hamper environmental challenges to sewer-connection permits—including a challenge that the Belmont Citizens Forum is bringing against the McLean developers. These regulations would also relieve almost all industrial sewer users from effective state oversight.

Currently, individual state permits are required for major sanitary-sewer connections and for all industrial sewers. These permits are reviewed and signed by DEP and can contain strict and often individualized environmental-protection standards and conditions. In addition, before the permit is issued, public notice is



given and comments are solicited. Under the new regulations, most sewer connections would be exempt from state permitting — and from the oversight that this process provides. Municipal permits would still be required, and these could potentially be challenged in Superior Court. However, such permits are normally issued without public notice.

The Belmont Citizens Forum has challenged state sewer-connection permits sought by developers at McLean Hospital — but through administrative appeals, not in court. McLean's pipes will send more sewage through parts of Belmont that are already overloaded in wet weather. Those pipes frequently back up into streets and basements, especially in the low-lying Winn Brook neighborhood.

The Citizens Forum's first sewer challenge, to Northland Corp.'s Woodlands townhouse development, was settled in 2005. The second, to American Retirement Corp.'s Freedom Commons senior community, is in progress now. A hearing is scheduled for January 29–31 2007. The regulations proposed by DEP would prevent a similar challenge to new sewer connections at the proposed Belmont Uplands development at Alewife.

Steve Pearlman, advocacy director for the Neponset River Watershed Association, said that he has not seen “such an ill-advised regulatory proposal or one which poses a greater risk to public health and the environment” in 20 years of work, including 17 years at DEP's Bureau of Resource Protection.

Today, only about 5 percent of the rivers in Massachusetts are known to meet state standards for surface water quality, Pearlman said. “Under these circumstances it is truly extraordinary for DEP to propose the virtual elimination of meaningful state oversight of industrial sewer dischargers, regardless of the level of toxic pollutants in their wastewater; indeed, without even knowing or seeking to ascertain the level of toxic pollutants in their wastewater,” he said in comments to a DEP public hearing on the proposal.

The deadline for comments on the regulations is November 13. The proposed changes are available at www.mass.gov/dep/water/laws/regulati.htm #wastewat.

—Sue Bass is a director of the Belmont Citizens Forum.



Sewer Costs *continued from page 16*

responsibilities overlap. We often collaborate.

Glenn Clancy, Director of Community

Development: My office does heavy-duty engineering, but we are both engineers. We both have degrees. Community Development also handles building inspections, building permits, zoning, and planning.

BCF: I talked with Michael Eccles and his crew last December as they flushed sanitary sewers near the Pequossette playground. Michael told me that Belmont's sewers are of high quality construction, that they do not leak, and that any sewer problems in Belmont were due to sump pump connections and other homeowner abuses. At the last Town Meeting, Ralph Jones, head of the warrant committee, told us that Belmont desperately needs to spend something like 14 million dollars to reline our sewers because they are cracked and leaking. Who is right?

Clancy: It is a matter of perspective. Michael does not see the reports from FST [Fay Spofford & Thorndike, the civil engineering firm Belmont uses] that we see and Ralph Jones sees.

Castanino: Michael is a very conscientious public works crew supervisor, but the short answer is that Ralph is right.

BCF: MWRA data shows that Belmont's I/I problems are typical. No MWRA community has a ratio of

I/I to sewage much better than one-to-one. Is there any hope?

Clancy: I always have hope, but Belmont deferred maintenance for years and years. That lack of maintenance is coming home to roost. Recently we have spent millions to correct illegal sewer connections in private homes and to reline and replace pipes. Tomorrow, we will open bids for about 1.75 to 2 million dollars for section 308 work [required under Section 308 of the federal Clean Water Act.] But our I/I numbers have not gotten better. We wonder if there may be some problem with the MWRA sewage meter at Flanders Road. With our new computer model, we may be able to check the MWRA numbers. [The low bid for the 308 work came in at just above \$1.4 million, a pleasant surprise.]

Castanino: Technology keeps getting better. Plastic pipes and cure-in-place sewer pipe linings are relatively new. Who would have thought twenty years ago that PCs would be everywhere?

BCF: I have heard that some homeowners have been uncooperative when you found illegal sewer connections and offered to correct them for free. Is that true?

Clancy: I would not use the term uncooperative. We recently completed an MWRA grant/loan program [which distributes both grants and interest-free loans

continued on page 14

to municipalities doing I/I work] that fixed inflow problems at 100 homes and cost a million dollars. Ninety to 95 percent of the homeowners were completely cooperative and easy to work with. There were five to ten that I would say did not seem to appreciate the importance of the program. They had normal concerns when we had to enter their homes. This program was a huge expense. It was a grant/loan from the MWRA so the finances were easier than usual, but I cannot recommend that the town undertake this sort of program again. The homeowners with illegal connections should pay at least some of the cost. Maybe the town can bring the storm sewer to the edge of their property and the homeowner can be responsible for his connection to the storm sewer.

BCF: How do you find illicit sewer connections?

Clancy: We can do smoke tests, dye tests, and TV inspections. When we do smoke tests, we put smoke into the sanitary sewer. If there is a downspout connection to the sewer, eventually smoke comes out on the roof. Some of these tests require access into homes. Sometimes that is difficult. How do we get in if the homeowner won't let us in? I have been talking with Will Brownsberger about state legislation that would require a sewer inspection and correction of illegal connections whenever a property is sold.

BCF: Michael Eccles told me that DPW crews often notice illicit sump pump connections and open sanitary sewer clean-out ports when they go into basements to deal with other problems. They remove the connections and explain the regulations, but Michael was pessimistic about long-term compliance.

Considering the dreadful consequences of sanitary sewer overflows in basements, I would think that a more aggressive stance would make sense. Is Belmont going to get tougher?

Castanino: What happens if we remove an illegal sump pump connection and then the basement floods? The homeowner would be telling the selectmen that we caused damage to his home. Some homeowners may be unable to afford to fix their illegal connections. There are practical problems to strict enforcement.

Clancy: There must be a strong political will before we can do more. We need public education. Homeowners need to realize that when they put storm water into the sanitary sewer, they are causing real damage to someone else. That someone may be the person who sits next to them at church. It may be someone whose children play with his children. If a

homeowner looked the victim in the eye as he was told how his illegal connection was causing raw sewage to flood the other person's basement, he would understand and stop. That's what I think.

BCF: Can Belmont personnel get sewer flow rate information by, for example, looking in manholes during storms? My understanding is that flow-rate information helps find problems.

Castanino: We have ideas about where problems are from keeping track of what overflows when. We try to look at sewage levels in manholes during surcharges, but to be valuable the measurements need to be

accurate and consistent. During a storm our primary focus is to deal with storm-related services and we do not always have time to measure surcharges. We do not have flow-rate monitoring equipment.

Clancy: Next spring we will get flow rate data to calibrate our new computer model. Flow rates will be measured at 20 points for 10 weeks during which we



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expect to have some heavy rain. We need good rains for useful I/I data. That is why we must wait until spring. The measurements will cost almost \$100,000. A subcontractor to FST will do the work. This will be part of the first system-wide I/I evaluation for Belmont in the last twenty-five years.

BCF: What could Belmont do if it had its own flow-rate monitoring equipment?

Castanino: We could check for problems at a finer level. However, if we gather storm flow information either by direct measurement or gauging, it would be difficult for us to evaluate the data because of staffing constraints. Staffing in public works has been cut thirty percent in the last fifteen years.

BCF: My brother, an architect, told me that plastic sewer pipe lasts forever.

Castanino: Nothing lasts forever. Plastic pipe has not been around long enough to find out how long it lasts. One concern is that it is not hard, so that grit in the sewage will wear through it. Another possibility is that chemicals may eat away plastic pipe in industrial areas.

BCF: How many miles of sanitary sewers do we have in Belmont, not counting connections from individual houses to the sewer line in the street?

Castanino: 76 miles.

BCF: How many miles of our sewers are constructed with vitreous clay pipe, the standard material for sewer construction until when — about 1960?

Castanino: Almost all of our sewers are clay pipe.

BCF: If we install new plastic pipe, how much does that cost?

Clancy: About \$170 per foot.

BCF: If we repair a mile of clay pipe with cure-in-place liner, how much does that cost? How long do relined pipes last?

Clancy: About \$45 per foot for eight-inch pipe. The lining can stand alone so that if the clay pipe completely disintegrates, the lining alone will still be a sound pipe. We expect the linings to last 75 to 100 years.

Seventy six miles times 5,280 feet/mile times \$45/foot is over 18 million dollars. Some of our sewer pipes have deteriorated so badly that relining is not an option.

— Sumner Brown is a director of the Belmont Citizens Forum.

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People Are Asking

What's the Cost to Fix Belmont's Sewers?

By Sumner Brown

Belmont's sewers have problems. When it rains hard, some Belmont homes get flooded with raw sewage in their basements. Belmont is under legal pressure from the Massachusetts Department of Environmental Protection to reduce sewage leaking into streams. Data from the Massachusetts Water Resource Authority (MWRA), which provides our water and disposes of our sewage, show that half of what Belmont sends to Deer Island via our sewer

pipes is rainwater or groundwater that should not be in our sewers. It gets there via inflow and infiltration (I/I). Inflow is rainwater piped into the sanitary sewer system when roof drains and sump pumps are illegally connected to the sanitary sewers rather than the storm drains. Infiltration is groundwater that seeps into cracks in the sanitary sewer pipes.

Recently, I asked Peter Castanino, Director of the Department of Public Works, and Glenn Clancy, Director of Community Development, why there is so much extra water in our sewers, and how the town has been trying to reduce I/I.

Belmont Citizens Forum: How do you two divide responsibilities?

Peter Castanino, Director of the Department of Public Works: By job description. Many of our

continued on page 13