



## Belmont Citizens Forum

### New Cushing Plan Shows Smaller Scale

*By Sue Bass*

The developer of Cushing Village says he will submit a special permit request to the Belmont Planning Board by mid-November for a three-building development at Cushing Square. Three architecturally distinct buildings are planned for the sites of the former S. S. Pierce building, CVS drugstore, and the municipal parking lot. An earlier design showed a monolithic structure more appropriate to a city.

"The new proposal is, I think, much more fitting with a residential community," said Chris Starr, principal of Smith Legacy Partners. Smith's firm has acquired control of almost all of the two blocks bounded by Trapelo Road, Common Street, Belmont Street, and Williston Street.

The three buildings would even have separate names. Winslow, on the corner of Trapelo and Williston, would have wood detailing and be named after Winslow Homer, who spent

summers painting in Belmont. Hyland, on the corner of Belmont and Common streets, would have stone detailing and a name reminiscent of the Highland Market, which once stood there.

For the signature building on the corner of Common Street and Trapelo Road, Starr is considering the name Pomona, the Roman goddess of fruit and the figure on the town seal. Starr is planning a stucco and stone building with metalwork in the shapes of vines and maybe a fresco of a cornucopia. Starr said he hopes to attract a small grocery store.

"I and all the neighbors in Cushing Square are in favor of an appropriately scaled development," said Don Becker, a Precinct 5 Town Meeting Member who lives a block away on Horne Road. Whether this design is appropriately scaled was too soon to say.

Starr has not provided the total square footage for his new design to Belmont residents but said his plans call for 120 apartments, 15 of them



Cushing Village elevation as seen from Trapelo Road.

meeting the state's definition of affordable housing; 30,000 square feet of retail space; and 294 parking spaces plus "ample bike storage."

Of the parking spaces, 144 underground spaces would be for the apartments; 50 underground spaces would be managed by the town, replacing the spaces lost when it sold Starr the municipal lot; and 100 would be surface parking for Cushing Square retailers. Horne Road, which runs through the property to Common Street, would be open to pedestrians and for access to parking but would not remain a through street for cars.

Starr said he estimates conservatively that the development would pay about \$556,000 a year in Belmont property taxes. That's a considerable

hike over the \$72,500 Starr pays now. A few months ago, Belmont Assessing Administrator Richard Simmons projected the development would yield a \$400,000 increase in annual tax revenue.

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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](mailto:info@belmontcitizensforum.org).

Now Simmons and the vice chair of the Board of Assessors say the project could produce a \$500,000 increase.

### **\$5 Million Article Withdrawn**

Meanwhile, the Economic Development Advisory Committee, created by the Selectmen this spring to increase property revenue from commercial development, has withdrawn plans to bring an article to Town Meeting in January setting a target of \$5 million in new revenue. The Committee also cancelled public meetings originally scheduled for November 9 and 15.

The \$5 million target had promised to be controversial because the details of how the money would be obtained were sketchy. Asked how she'd vote, Jenny Fallon, a longtime Precinct 1 Town Meeting and former chair of the Planning Board, agreed that the town and the schools need more money but said, "I would have to have a little more fleshing out of what it would entail."



SUSAN JONES

## Thomas Clark House Update

Part of the Thomas Clark House has been demolished, but there is still hope for saving the oldest portion of the house—if a location can be found in time. The 1840 wing of the house on Common Street was destroyed on October 31, but the 1760 house is still intact. The developer, Mark Barons, has set a deadline of December 15 for moving the house off the site; at that time, he will demolish whatever remains and begin building on the lot.

The heirs who sold the house to Barons have pledged money for relocating the house, but as of press time, the town had not yet found a suitable location. For more information, contact the Belmont Historic District Commission, [www.belmont-ma.gov](http://www.belmont-ma.gov).

The four developments suggested by the committee as sources for that \$5 million are not equally realistic. They were:

1. Cushing Village, where planning was already well along.
2. A grocery store or other commercial development on the site of the former MDC skating rink in a four-acre island among the ramps off Route 2. Apart from traffic issues, the site is coveted by some Arlington residents for stormwater storage. The state owns it as conservation land. It could be converted to another use only by a 2/3 vote of the Legislature.
3. Dense development three to four stories high along South Pleasant Street. The Planning Board has been working on rezoning that

land and hopes to bring a zoning proposal to Town Meeting in January.

4. Luxury housing on the 25 acres of McLean land now zoned for a large senior complex and a research and development building.

Bob Mahoney, president of Belmont Savings Bank and chairman of the Economic Development Advisory Committee, called the McLean housing goal “by far the hardest.” However, approval of increased development on Pleasant Street may depend on what is planned for the hill overlooking it. Both developments would increase traffic in the same places: Pleasant Street, Waverley Square, and Belmont Center.

Sue Bass is a Precinct 3 Town Meeting Member and a former Belmont Citizens Forum Director.

# Simple Adaptations Help Bikes Fit in Better

By Jeffrey M. Roth

Cyclists can legally ride on all local roads in Massachusetts, but riding on the road isn't comfortable for all bicyclists. Young children and slower, less-experienced cyclists avoid riding in a sea of cars and trucks, where more experienced bicyclists may feel fine. Different bicycle accommodations such as off-road paths, bike lanes, cycle tracks, and sharrows—shared roadway lanes—provide safe cycling opportunities for different bicyclists.

## Off-Road Bicycle Paths

Some of the most popular bicycle accommodations are shared-use, off-road trails like the nearby Minuteman Bikeway through Arlington, Lexington, and Bedford. The Minuteman Bikeway is heavily used by walkers, joggers, children getting to school, senior citizens, cyclists, roller bladers, and more. Off-road trails are free of cars and therefore feel safer than street riding. Users don't have to breathe

motor-vehicle exhausts, and the lack of noise from automobiles makes the experience more peaceful. There's a sense of camaraderie because everyone around you is either on bike or foot.

Off-road trails often follow former railroad lines, hence the name "rail-trails." Rail-trails connect town centers and important destinations and are typically flat with only gradual hills and descents and slow bends and turns. The scenery is often natural, uncluttered by signs and buildings.

Off-road paths draw a wide spectrum of cyclists and pedestrians. Unfortunately, the paths become congested during peak times, and faster riders often choose to ride on the streets instead. For this reason, it is important to have on-road bicycle accommodations as well as off-road paths.

## Cycle Tracks

Cycle tracks are bikeways that run adjacent to a street but physically separated from it. The tracks are usually raised like a sidewalk and are meant exclusively for cyclists. Cycle tracks are often placed between the sidewalk and the auto lanes. Sometimes they have their own traffic signals.

Cycle tracks are relatively new in the US, though they're common in northern Europe. They are growing in popularity because they encourage people to switch from driving to cycling. Cycle tracks are being installed along Concord Avenue in Cambridge from Brighton Street to the Fresh Pond rotary. The city of Cambridge installed a cycle track along Vassar Street near MIT in 2003.

Cycle tracks are great for new cyclists who do not feel comfortable riding next to cars. One problem with cycle tracks comes at intersections with driveways and cross streets. Often drivers look only in the street when turning, not at sidewalks. Cyclists



The new Brighton Street-Alewife shared-use path.

are less visible to drivers, as are pedestrians.

The other problem with the cycle track is that car-cyclist friction is replaced by cyclist-pedestrian friction, since pedestrians walk right next to faster-moving bicycle traffic. Experience and trial and error eventually overcome these issues.

## Bicycle Lanes

Bicycle lanes are the most common type of bicycle accommodation in urban and suburban environments. Generally they are to the right of the travel lane. They usually are four- to six-feet wide, with bicycle symbols painted in the lane. Bicycle lanes adjacent to parked cars are often wider to let cyclists maneuver around improperly parked cars and opened car doors. Bicycle lanes on roads without on-street parking can be narrower.

Lane markings and bicycle symbols encourage awareness of cyclists. Another advantage of bicycle lanes is that they narrow the motorists' travel lane, causing them to drive more slowly and avoid potential accidents.

In some states, cyclists are required to stay in bicycle lanes, but Massachusetts law allows cyclists to ride outside them to avoid parked cars and their opened doors, plus other obstructions like snow mounds, overgrown vegetation, drainage grates, or construction trenches. Cyclists will sometimes ride farther out into the street to make themselves more visible to drivers. And sometimes motorists drive illegally in bicycle lanes, despite Massachusetts' \$100 fine.

Bicycle lanes next to on-street parking have led to a number of severe injuries to cyclists from "dooring," where drivers open their left door into the bicycle lane without looking. While Massachusetts law imposes a \$100 fine for "dooring," additional driver education would make bicycle lanes safer. Another approach is to install bicycle lanes between driving lanes, as was done on Pennsylvania Avenue in Washington, D.C. recently.

Since almost all bicycle lanes are adjacent to motor-vehicle lanes, they can collect silt, sand,



Cycle track, Concord Avenue, Cambridge

dirt, and debris blown to the side by cars—another reason some cyclists ride further into the motorists' lane. In spite of these drawbacks, bicycle lanes are visible and cost-effective investments to accommodate growing numbers of cyclists on existing roadways. They do require municipalities to pay closer attention to cycling hazards, like parallel storm drains and temporary metal plates.

## Sharrows and Fog Lines

If bona fide bicycle lanes or cycle tracks cannot be installed, other ways can accommodate cyclists. "Sharrows," painted symbols of bicycles, can be placed on a road surface, telling motorists to yield to cyclists and leave room for cyclists when passing. They're reminders that



A typical sharrow mark.





Massachusetts law allows cyclists to use the full lane.

Another approach is painting solid white shoulder lines to narrow a travel lane to 11 feet. These lines are also called “fog lines.” When they are not tapered into curbs at intersections, fog lines provide a semblance of bicycle lanes. Finally, some roads feature “Bikes May Use Full Lane” signs that reiterate Massachusetts state law. These explicit signs, which replace the vague “Share the Road” signs, are also helpful during construction work that degrades road shoulders, forcing cyclists to ride further out into the road. These low-cost approaches make streets friendlier for cyclists.

### Belmont’s Bike Accommodations

Belmont has several types of bike accommodations. The new rail-trail that connects Brighton Street to Alewife provides the only direct access from Belmont to the Alewife transportation hub. Concord Avenue from Blanchard Road to Belmont Center has bicycle lanes that link to the cycle track on Concord Avenue in Cambridge. Bicycle lanes are planned for the state’s roadway reconstruction of Trapelo Road and Belmont Street. Sharrows are planned for a number of roads in Belmont, including Winter, Mill, Waverley, Lexington, Common, and Brighton streets. In addition, “Except Bicycles” signs have

been installed to allow cyclists on some roads where cut-through car traffic is banned.

Still, if roads were designed better for bicyclists you would see far more cyclists. The snows of Minneapolis and rains of Portland, Oregon, should discourage cyclists—but those cities have the highest cycling rates nationwide. Cycling is popular there year-round because the infrastructure encourages it.

Compared to adding motor-vehicle capacity to existing roads, accommodating cycling on roads is inexpensive. Communities can add bicycle lanes and sharrows for the price of paint. Off-road trails provide a high return on investment because they enhance health and wellness, transportation, recreational, economic, and local ecology. The favorable cost-to-benefit ratio of cycling infrastructure means that towns like Belmont should be eager to try new things and encourage more people to take advantage of all that cycling has to offer.

Jeff Roth is a Belmont resident who commutes to work in Lexington by bike.

### Correction

In the September/October 2011 issue of the Belmont Citizens Forum *Newsletter*, two photos accompanying the article “Belmont’s Newest Farmer Tends the Land” were attributed to Jane Sherwin. These photos were actually taken by Susan Jones. The Belmont Citizens Forum apologizes for the error.



# Bike Safely Through Winter Weather

By David Chase

The obvious question is, “Why would anyone bike in the winter?” The answer is, “For the same reasons you would bike in the warmer months.” Biking is good for you in all seasons. It’s good to get outdoors in winter, when we tend to stay indoors because of the dark and cold. Car travel is often slower in the winter, and parking can be harder to find. With a little planning, cyclists can keep in shape and bypass traffic jams all winter.

Winter bicycling during daylight hours on dry, clean roads is not substantially different from other winter activities like skiing or shoveling snow—and it’s not much different from cycling in the summer. There are patches of ice, but the solution is like avoiding spring potholes: you simply ride around them.

## How to Prepare for Winter

Warm clothing for you, accessories for the bike, and alternative routes can help cyclists adapt to winter riding.

### Add Warmth

Cold weather requires warm clothing. Layers are a good idea. Winter cyclists keep the wind at bay with warm shoes, windproof gloves, and something to protect your ears, but most people need these items for other winter activities anyway. Some people regularly ride bikes with very little to warm their hands, whereas others go so far as to tape over the vents on their helmets to reduce airflow. The important thing to remember is that cycling is a physical activity, and cyclists get warm quickly. You can easily be sweating from your knees to your neck if you overdress.

### Add Fenders

Because the roads are often somewhat wet with sandy salty snow melt, just adding fenders will help keep you and the bicycle clean. This is much more pleasant than getting intermittently misted with slime and grit, and means you don’t need to wear special clothes to ride to work. Salt and sand are destructive enough to bicycles that some commuters maintain a

cheap “beater bike” just for the winter. Bicycles designed for these conditions often include a full chain case to keep the chain free from salt and grit, not just a chain guard to keep your pants-leg clean.

### Add Lights

Commuting in the winter requires good lights. Sunrise is early enough (no later than 7:14 a.m. in early January) but sunset can be as soon as 4:12 p.m. (mid-December), and you don’t want an unexpected delay to leave you on the road without lights after dark. To be sure that you can see surprises in the road and be seen, good lights help. Battery-powered lights are more affordable, but the cheapest are not bright enough. Dynamo-powered lights are brighter and don’t require recharging, but they are more expensive.



DAVID CHASE

Time to consider studded tires.



When bad weather happens to good bikes.

### *Change Routes*

Route choice is more important in the winter. Different towns do better or worse jobs of plowing their roads and clearing their sidewalks. While bike paths like the Minuteman Trail are free from car traffic, they are not usually salted due to their proximity to wetlands, and they are often plowed later than roads.

### *Get Studded Tires*

Many cyclists ride all winter just by adding lights and fenders. If your routes tend to be icy, or if you want more peace of mind about possible ice, studded tires provide enough traction to ride on wet ice and stay upright. These tires are relatively expensive (\$50 for one tire) and do add a noticeable drag to the bike's rolling resistance.

Riding with studded tires involves changing the way you brake. Braking on ice should usually start with the rear tire because a rear skid is much easier to control than a front skid. Always brake before turns, rather than in them. The best studded tires use carbide, which will last for several thousand miles before they start to lose much grip. While steel studs are cheaper, they don't last long.

### *Riding in Bad Weather*

In all cases, prudence applies. Just as you drive more carefully in a snowstorm than you do on a sunny summer day, you also take more care on a bicycle. Riding in bad winter weather—especially near-freezing mist or rain—can allow water to flow into bicycle brake cables, then freeze. In that case, you can usually pull the cable tight to brake, but the return spring is not strong enough

to release the brake. To prevent freezing, place a little oil in the upper ends of the cables to keep the water out. Another option is to use a fixed-gear bicycle to allow leg braking.

One winter condition can make cycling too unpleasant and too unsafe, and there's no help for it. If there's too much snow to plow or no off-road place to plow it, roads get much narrower, leaving insufficient room for cars to pass you easily. Narrowed roads also reduce the opportunity for filtering through traffic when it is slow or stopped, which removes one of the advantages of riding a bike. When the roads are too narrow, you don't ride that day, unless you can find another route or another way past the bottleneck (such as boarding a bus with bike racks for the narrow stretch.) Unfortunately, when the roads are narrow, sidewalks are usually impassable as well.

For more inspiration, see the web site [icebike.com](http://icebike.com).

David Chase is a Director of the Belmont Citizens Forum.



Winter along the Minuteman Bikeway.



# Stormwater Basin Alters Alewife Reservation

By Meg Muckenhoupt

A huge construction project is now underway in the Alewife Reservation, a development that dwarfs the Alewife-Brighton Street bike path. The city of Cambridge has been building a 3.4-acre stormwater detention basin the Reservation, a public park owned by the Massachusetts Department of Conservation and Recreation (DCR). The basin has been carefully designed with ecological restoration in mind, but it may not contain enough stormwater to ease common floods—and critics say it has the potential to make some local floods much worse.

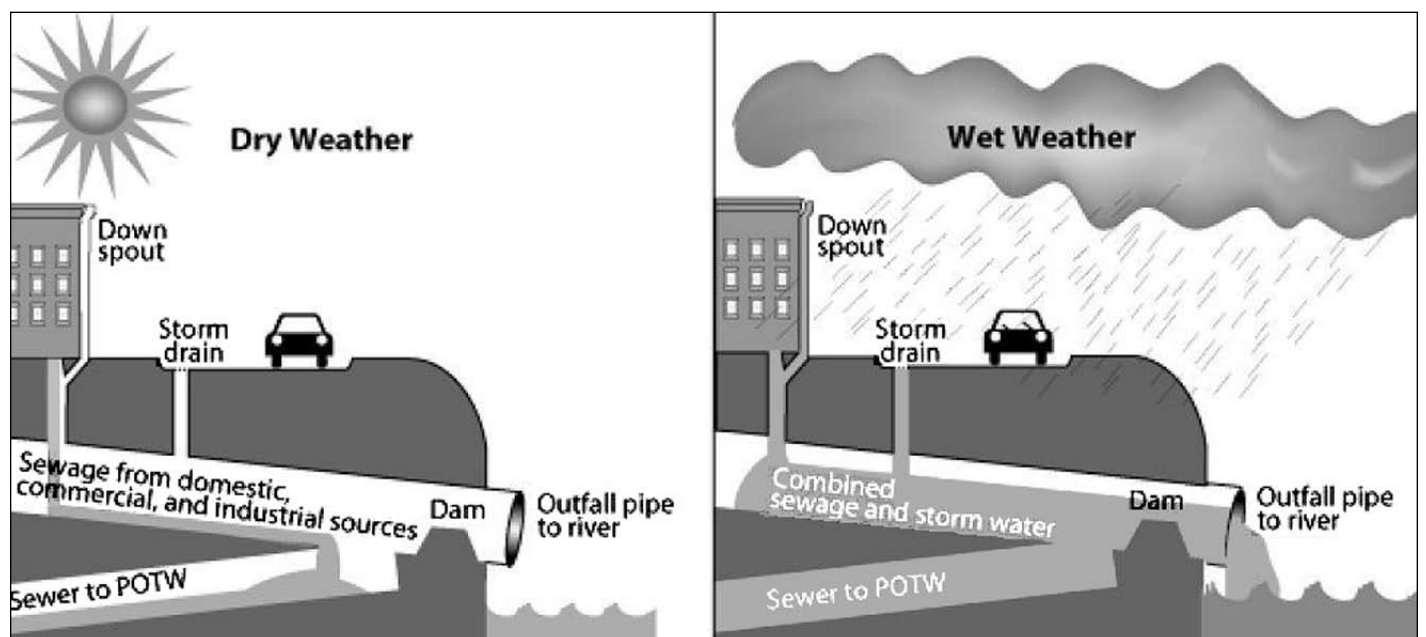
## Project to Reduce Flooding, CSOs

The basin is being constructed as part of the city of Cambridge's "Cambridge Park Drive Area Drainage Improvements and Stormwater Wetland Project." According to the Cambridge Department of Public Works, the goal of this project is to minimize flooding on Concord Avenue and Fresh Pond Parkway, reduce pollution in the Little River and Alewife Brook, and to eliminate combined sewer overflows (CSOs) into the Alewife Brook.

The CSOs are the most troublesome issue. When the city of Cambridge first built storm drains decades ago, the storm drains were linked to sanitary sewers. When the weather is dry, all the contents of these combined sewers would simply flow to a wastewater plant. During heavy storms, though, too much stormwater rushes into the system, and the pipes can't contain the flow. Then, the foul mix of raw sewage and excess stormwater is discharged through CSOs.

There are eight CSO outfalls on the Alewife Brook, producing an average of 63 CSO discharges a year, according to the April 2011 Joint Public Notice: Alewife Brook Combined Sewer Overflows Progress Update, issued by the Massachusetts Water Resources Authority (MWRA) and the cities of Cambridge and Somerville.

Cambridge and the MWRA aren't cleaning up CSOs just because they're a filthy nuisance. The MWRA is legally required to clean them up as a condition of the 1985 ruling on the Boston Harbor Case filed by the Conservation Law Foundation. Cambridge and the MWRA are currently working on five projects to reduce CSO discharges, separating manholes from sewers, upgrading connections between Cambridge



US EPA

A depiction of combined sewer overflows (CSOs). During dry weather and small storms, sewage flows to publicly owned treatment works (POTW)(left). During heavy storms (right), storm water overwhelms the drains and raw sewage and stormwater flow into local waterways.

and MWRA systems, upgrading equipment on Rindge Avenue, separating sewers from storm drains in neighborhoods around Huron and Concord Avenues, and creating the stormwater outfall and wetland basin. All these projects are scheduled to be completed by 2015.

The Joint Public Notice states, "Together, these projects are predicted to reduce average annual CSO volume to Alewife Brook by 85% (from 50 million gallons to 7.3 million gallons) and reduce the frequency of discharge from 63 times a year to seven times a year on average ...The MWRA estimates that average annual CSO discharge to Alewife Brook has been reduced by 48 percent since 1997."

That's a lot of raw sewage kept out of public waterways. The Mystic River Watershed Association (MyRWA) works to reduce the *E. coli* pollution in the Mystic River downstream of the Alewife brook. According to MyWRA Executive Director E.K. Khalsa, MyWRA has "great hope this project will help accomplish that."

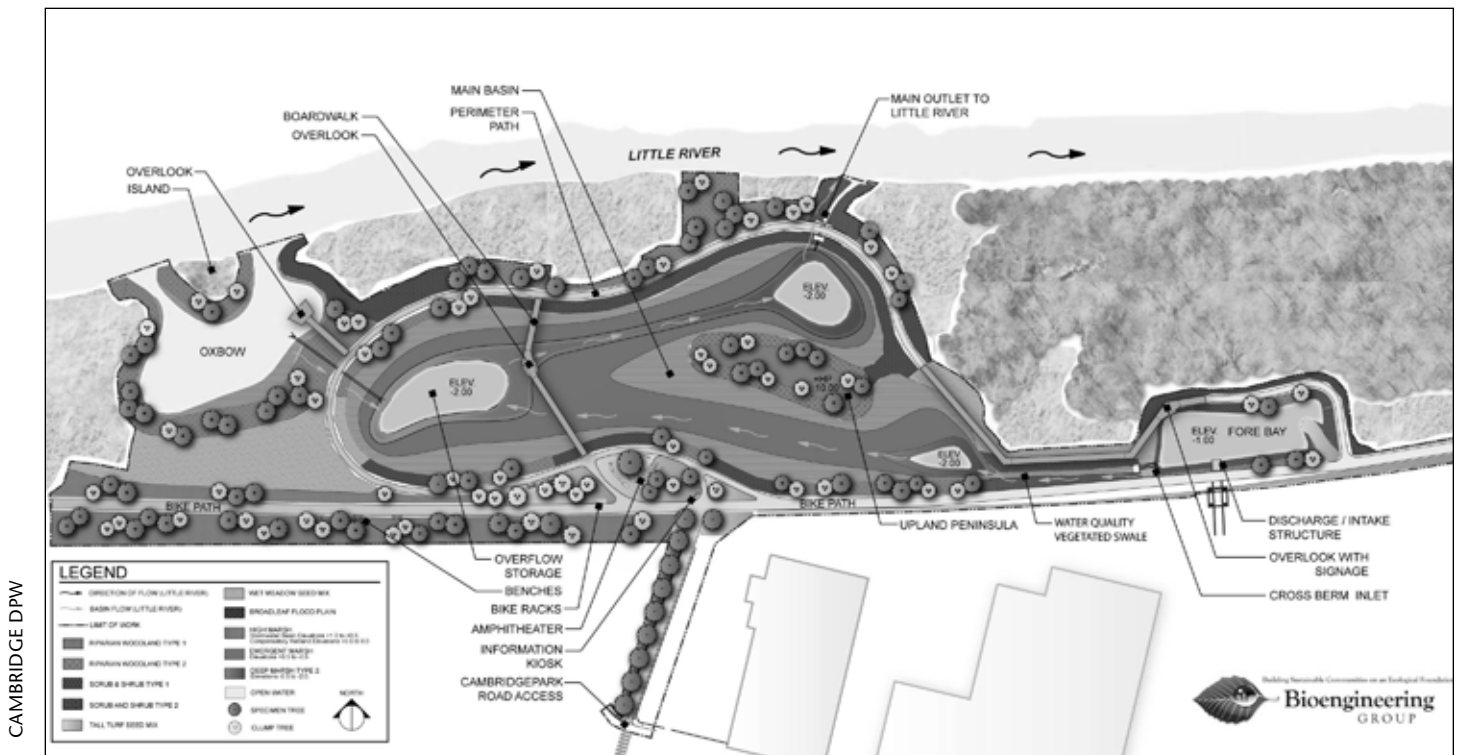
## New Habitat, Wetland Planned

The stormwater wetland project and Huron/Concord sewer separation project go together. Once the sewers are separated, the neighborhood's stormwater will flow into a new box

culvert storm pipe, then drain into a "treatment wetland" in the Alewife Brook Reservation. That wetland is an eco-conscious stormwater detention basin. As Khalsa puts it, "It's like a beautiful bucket ...[but] you could have just built this big sand pit."

The basin is supposed to keep up to 10.3 acre-feet of water out of the Alewife Brook during storms. Then, the water is supposed to drain slowly through the basin into the local groundwater and into the brook. After the storm, the stormwater should drain slowly through the recreated wetlands and soil releasing sediment as it goes. Native wetlands plants will filter nutrients and pollutants out of the stormwater as well, leaving cleaner water to recharge the Alewife Brook between storms.

Apart from its stormwater filtering, the basin is supposed to bring new life to the park—vegetable, animal, and human. A variety of new wetlands, marsh, thicket, and upland woods habitats will be created as the basin is dug into the Alewife Reservation with new plantings; more than 115,000 new wetland plants and about 3,800 upland plants. Designers at the Bioengineering Group stated that they would install "plant species selected for synergistic relationships with existing ecological



The Bioengineering Group's rendering of the planned Stormwater Wetland basin.

patterns and natural processes that provide a significant improvement over the existing degraded habitat.” The project will also involve constructing a combination amphitheater/outdoor classroom, boardwalks, and overlooks.

The stormwater wetland project was described in an appendix to the DCR’s 2003 Alewife Master Plan as meeting “the goals and objectives” of the Master Plan by providing enhanced wildlife habitat, improved hydrology, and more recreation and educational opportunities. The report specifically cites “large open water area connected” to the Little River that will give alewives and other fishes a new, protected place to spawn.

Some community groups have supported the stormwater basin enthusiastically. The Friends of the Alewife Reservation went so far as to win a grant from the Massachusetts Riverways program to create a brochure about the basin’s future habitats in 2005, eight years before the project’s planned completion date. The brochure is available on the Friends’ web site, [www.friendsofalewifereservation.org](http://www.friendsofalewifereservation.org).

It wasn’t the Friends’ fault that their brochure was premature; the project was delayed by Wetlands Protection Act appeals of the plan, which took 27 months to adjudicate. In the end, the Massachusetts Department of Environmental Protection denied the plaintiffs’ request for reconsideration, and the much-delayed project was approved.

## Storms May Overwhelm Basin

Critics say this basin is in the wrong location and can’t hold enough water to prevent much flooding. Over the past two decades, the area has been suffering heavier, more frequent storms—so much so that the storm basin may be outdated before it is built. As long-time local flooding activist Stephen Kaiser, who was one of the plaintiffs who sued to stop the project, “Cambridge is making the fundamental mistake of building its detention basin in a flood plain.”

The basin will be surrounded by a five-foot-high berm with spillways, or drains, at 4.5 feet. The detention basin is designed like a bathroom sink: the spillways will keep the basin from overflowing the berms. Instead, excess water will

## 2004 estimates of rainfall for floods, inches of rain in 24 hours

100-year storm	6.6 inches
50-year storm	6.2 inches
25-year storm	5.6 inches
20-year storm	5.3 inches
10-year storm	4.4 inches
5-year storm	3.5 inches
2-year storm	2.8 inches
1-year storm	2.3 inches
3-month storm	1.5 inches

SOURCE: TRI-COMMUNITY FLOODING GROUP/ BELMONT CONSERVATION COMMISSION

flow through the spillways directly into the Little River and the Alewife Brook.

The problem is that the berms are too short according to Kaiser, who writes, “I estimate that a three- to five-year flood would be sufficient to allow river water to flow directly into the basin.” A three- to five-year year flood is a flood that has a roughly a 20 to 30 percent chance of happening in any given year. In that case, unfiltered, sediment-filled water will run straight from the Huron Avenue and Concord Avenue neighborhoods into Alewife Brook—and homes in Belmont, Arlington, and North Cambridge.

Cambridge has no plans to alter the Alewife Brook to accommodate more water; the Brook has been largely contained in culverts since 1912. According to Kaiser, in 2001 and 2004 filings with the Massachusetts EPA, the city of Cambridge and the Massachusetts Water Resources Authority documented that the combination relief sewer and basin would increase flooding along the Alewife Brook by 1.5 inches during a 10-year storm. The city did not calculate how much higher Alewife Brook would rise during a 50-year storm: Six inches? A foot? Every inch means that some new area is flooded.

Other local water activists are more confident that the basin will help matters. MyWRA’s Khalsa said he was impressed by “the amount of thought, time, engineering skill applied to this issue,” and to weighing the benefit of keeping sewage out of the Alewife Brook versus increasing local flooding. “This is a very densely

populated area with many conflicting interests,” Khalsa said.

## More Storms Arriving

The problem is that the next 25- or 50-year storm may not be that far away. Lately, large storms have been arriving more frequently than predicted. According to Kaiser, based on the region’s weather history, major storms should have produced eight inches of rainfall in the past 15 years, but the Alewife area actually received 42 inches of major storms. In the last 15 years, Alewife has had two 50-year floods, two 25-year floods, three 10-year floods, and several five-year floods.

The Massachusetts DEP agrees that weather patterns are changing. When the issue was raised 2010 ““Tentative Determinations to Extend the Variances for Combined Sewer Overflow Discharges to Alewife Brook/Upper Mystic River and Lower Charles River Basin,” the DEP agreed to review how a “typical year” is calculated. Representatives from MyWRA commented, “Since the definition of a ‘typical year’ was calculated, weather patterns have changed. For example, so far this year, we have had five storms larger than the ‘typical year’ storm. Over the next three years, MWRA should modify the definition of a ‘typical year,’” The DEP’s response:

“This is becoming a national concern due to changing precipitation patterns over time. MassDEP is currently evaluating issues related to climate change. How the ‘typical year’ was calculated, as well as all of the other assumptions related to the CSO Long Term Control Plan (LTCP or “Control Plan”), will be revisited when the implementation period is over and the CSO projects are complete (2015-2020).”

Unfortunately, that date falls long after the stormwater basin is scheduled to be completed.



DAVID CHASE

The clear-cut site of the future stormwater basin, October 2011.

## Basin May Flood During Construction

Those storms won’t stop just because the city of Cambridge is building a detention basin. Kaiser wrote, “The thing to watch over the next two years is whether during construction of the basin and relief sewer, the construction site is exposed to a major storm and flood. Digging out the basin requires a major trucking operation to remove the soil, so such an excavation would be turned into a mudbowl by the effects of rain and flood overflows.”

Global climate change is likely to blame for all this flooding—but although these storms may have global causes, they cause local problems. Governments need to respond to future floods, not the past, no matter how unsettling the future may be. Taking over acres of public park land in a flood plain to build a detention basin designed to increase local flooding downstream may turn out to be a poor choice.

According to a 2006 Partial Summary Decision of the case issued by the Division of Administrative Law and Appeals, the city of Cambridge estimated that it would have cost at least \$13 million more to use a parking lot adjacent to the Alewife Reservation for a stormwater basin. That figure includes including compensating the unwilling owner for taking his



land by eminent domain and installing pumps and a large channel to get stormwater uphill to the lot.

It was far less expensive to take over 3.4 acres of a public park. Long-time Belmont water activist Sue Bass commented, "The DCR should never have allowed this project in a reservation ... The part that was scraped for this construction may eventually look OK. But it destroyed the most magical portion of the Alewife Reservation."

In the end, the location question is moot; construction has begun. But will the basin keep sewage out of the Alewife Brook without unacceptably increasing flooding? MyWRA will be monitoring the Alewife Brook. Said Khalsa, "We're going to find out... MyWRA will be watching."

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

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## Winn Brook Sewer Update: It Works

*By Sumner Brown*

On August 27 through 29, Hurricane Irene exercised the new Winn Brook sewer storage system. The result: There were no backups. Yes! No backups!

The new system cost about \$6.2 million. It is designed to handle a storm as big as the 2006 Mothers' Day storm, which dropped 7.61 inches at Logan over 48 hours. During Hurricane Irene, Belmont received 3.35 inches of rain as measured by our Department of Public Works. According to Glenn Clancy, Belmont's Director of Community Development, the valves and pumps that control the system were activated for 36 minutes between August 27 and August 29. The pumps moved 18,900 gallons of sewage from the Winn Brook neighborhood through the new Channing Road pump station. While the pumps were working, sewage from north of Pleasant Street was diverted through storage tanks with a capacity of 240,000 gallons. Steve Kaiser, a citizen-engineer living in Cambridge who has followed every flood at Alewife since October, 1996, suggests that Irene was a one-year rain event for Belmont; storms this size can be expected to occur once a year.

Winn Brook needs the holding system because of sewer problems upstream from the Winn Brook neighborhood. These problems are "infiltration" from leaking sewer pipes and "inflow" from illegal connections to the sanitary sewer system. Inflow and infiltration put rainwater and ground water into the sanitary sewers where they do not belong.

Fixing pipes so they do not leak and removing illegal connections is difficult and expensive. Belmont has been spending a million dollars every few years since the 1990s to combat inflow and infiltration. For our efforts, our inflow and infiltration have not gotten worse, but over half of what we send to Deer Island for sewage treatment still comes from inflow and infiltration.

In 2008, consultants Fay Spofford and Thorndike measured sanitary sewer flows in Belmont during rains. They found that substantial and unexpected inflow originates on Belmont Hill, comes down Prospect Street, and goes through the Winn Brook neighborhood. Town Meeting has approved funding from the Massachusetts Water Resource Authority low-interest loans to again reduce inflow and infiltration. Glenn Clancy recently met with our sewer consultants, Fay Spofford and Thorndike to plan this work.

During past relining work, the post-relining video inspections identified individual leaking services. (See "How Do Sewers Get Relined?" Belmont Citizens Forum *Newsletter*, July/August 2007.) That is, certain connections between individual houses and the sewer lines showed inappropriate flow. The next phase of Belmont's sewer work will address these leaks town-wide, not only on Belmont Hill. Also the next phase will reduce infiltration at manholes. Sewer improvements anywhere in Belmont should reduce stress on Winn Brook's sanitary sewers.

Sumner Brown is a Director of the Belmont Citizens Forum.

## Environmental Events

Talk to the Belmont Municipal Light Department

**Wednesday, November 16, 7:30-9 p.m.**

Sustainable Belmont presents a discussion with the Belmont Municipal Light Department on a proposed new electric substation. Under discussion will be estimated costs and how the proposed project will meet the town's future electricity needs, potentially reduce customer rates, and foster energy conservation efforts. BMLD will also share its plans to help the town meet its goal to reduce carbon emissions by 80 percent by 2050. [www.sustainablebelmont.net](http://www.sustainablebelmont.net). *Chenery Middle School, 95 Washington Street, Belmont.*

Tour of the Charles River Dam

**Saturday, November 19, 2 p.m.**

The Department of Conservation and Recreation invites you to attend a ranger-led tour of the structure and pumping facility that keeps Boston and Cambridge above water. Free. [www.mass.gov/dcr/parks/charlesRiver](http://www.mass.gov/dcr/parks/charlesRiver). *Meet at the Paul Revere Park flagpoles below the Charlestown Bridge, Boston.*



Flowers flattened by the October 30 snowstorm, Belmont.

Pipe Dreams

**Monday, November 21, 7:30 p.m.**

This film discusses the proposed pipeline from the tar sands in Alberta Canada to the Texas Gulf coast through our country's heartland and over this country's largest freshwater source, the Ogallala Aquifer. Free. Sponsored by the Lexington Global Warming Action Coalition and the United Methodist Church, Lexington. [info@lexgwac.org](mailto:info@lexgwac.org), [lexgwac.org](http://lexgwac.org). *United Methodist Church, 2600 Mass Ave, Lexington.*

Walk-Ride Day

**Fridays, November 25 and December 28**

Walk/Ride Days occur on the last Friday of every month. Everyone is invited to Go Green by walking, biking, and using public transit. Participants are eligible for raffle prizes and discounts offered by businesses in Cambridge, Arlington, Boston, and other local communities. Register online at [GoGreenStreets.org](http://GoGreenStreets.org). *Greater Boston.*

Boston Gardens and Green Spaces

**Thursday, December 1, 7:30 p.m.**

Author Meg Muckenhoupt will discuss how and why Bostonians created parks and green space from 1600 to the present day, from the Boston Common and the Emerald Necklace to green roofs, city farms, art parks, and urban wilds. Sponsored by Friends of the Belmont Public Library, [www.belmont.lib.ma.us](http://www.belmont.lib.ma.us). *Belmont Public Library Assembly Room, 336 Concord Avenue, Belmont.*

Climate Change and Oceans

**Sunday, December 4, 7 p.m.**

Bud Ris, president of the New England Aquarium and director of the Union of Concerned Scientists from 1984 to 2003, will discuss the likely effects of climate change on our oceans and the implications for marine life and human activities. Free. Sponsored by the

Lexington Global Warming Action Coalition. info@lexgwac.org, lexgwac.org. Cary Hall, 1605 Mass Avenue, Lexington.

## Cultivating Our Eco-Mind

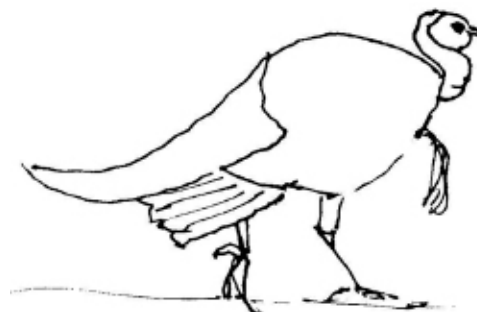
### **Monday, December 5, 7-9 p.m.**

Frances Moore Lappé, author of 18 books, including the bestselling *Diet for a Small Planet*, will talk about the power of food as a connector and how communities worldwide are working together to create more sustainable, vibrant food systems. Drawing on her new book *EcoMind: Changing the Way We Think, to Create the World We Want*, Lappé will explore how "thinking like an ecosystem" enables us to create new possibilities in our lives, our communities, and our world. Free. Sponsored by Sustainable Belmont and the Belmont Hill School. www.sustainablebelmont.net. Wadsworth Room at the Jordan Athletic Center, Belmont Hill School, 350 Prospect Street, Belmont.

## Winter Solstice Celebration

### **Saturday, Dec 17, 1-3 p.m.**

Come celebrate Habitat's 5th Solstice Celebration at Habitat. Traditional solstice indoor and outdoor activities and stories, warm cider, and a few surprises will be part of the day. Sponsored by Habitat Education Center and Wildlife Sanctuary. Adults and children \$8 members, \$10 non-members. Registration required. Habitat@massaudubon.org, www.massaudubon.org. Habitat Education Center and Wildlife Sanctuary, 10 Juniper Road, Belmont.



ANN COIT SIFNEOS

# 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 \_\_\_\_\_

Address \_\_\_\_\_

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Phone/E-mail \_\_\_\_\_

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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.***

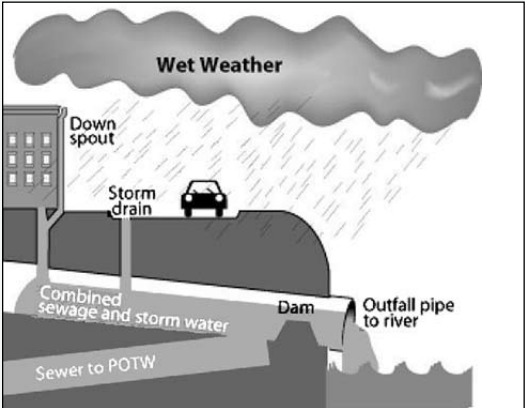
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November/December 2011

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