Wellington Brook Bacteria Exceed State Limits

By Sumner Brown

The Mystic River Watershed Association released a report on August 31 detailing high levels of bacteria they found in samples of Wellington Brook. Some of my friends were shocked. They should not have been.

If you have been paying attention (BCF Newsletter, March 2008, “Town Gets $11.6 Million Loan for Sewers,” BCF Newsletter, November 2009, “Expensive Leaks Persist in Belmont Sewers”), you know that this is not a new problem. Everyone agrees that the pollution in Wellington is bad and should be fixed. However by the time Wellington’s water leaves Belmont, most of the germs have died while passing through Clay Pit Pond. So with limited resources, the town put off Wellington to deal with worse problems.

The most likely cause of the Wellington bacteria is that it comes from leaking sewer pipes. Sewer pipes leak, particularly old clay pipes like Belmont’s. When the pipes are below the water table—which varies depending on how much rain has fallen and how close the pipe is to a stream or lake—ground water leaks into the sewer. That leakage is one reason that half of the sewage we send to Deer Island is water that got into our sewers by some fault; deliberate abuse of sewers via sump pump and downspout connections is another source. When the sewer pipes are above the water table, ground water doesn’t seep in; instead, sewage leaks out of the pipes. Some of that sewage seems to be getting into Wellington Brook.

Belmont began working on this problem last fall, in 2009. The alarming samples reported by the Mystic River Watershed Association were taken in January 2010. Glenn Clancy, director of Community Development, reports that the town is doing point repairs and lining of both sanitary sewer and storm drain mains. The work should be completed by the end of October, before you read this, at a cost of $1.73 million.

So the Wellington Brook problem is not new, the cause is easy to explain, and it may be already fixed. Beyond that, the Mystic River Watershed Association report raises three questions.

The sample taken from Wellington where it emerges from a culvert near the bottom of Common Street had 129,970 E. coli per 100 milliliters. That figure is more than a hundred times over the Massachusetts limit for water used for boating.

Has Wellington Brook made us sick? The numbers in the Mystic River Watershed Association report are big. The sample taken from Wellington where it emerges from a culvert near the bottom of Common Street had 129,970 E. coli per 100 ml. That figure is more than a hundred times over the Massachusetts limit for water used for secondary contact recreation such as boating.

E. coli are tiny; having 129,970 E. coli per 100 milliliters is a concentration that you’d get if you mixed one teaspoon of human feces in 64 gallons of water. The Massachusetts limit for swimming is about 550 times less.

The Massachusetts limit for swimming is based on research at four fresh water beaches showing the level of contamination for which, on average, eight out of 1,000 swimmers will suffer “acute gastrointestinal disease.” Exceeding that level means that more people will probably get sick.
On the day that the Mystic River Watershed Association found the high E. coli level in Wellington Brook, about three fourths of a mile downstream at the far end of Clay Pit Pond they found water that was much cleaner than the Massachusetts level for swimming.

Has Wellington Brook Made us Sick?

So has Wellington Brook made us sick? Probably not because no one, I hope, plays in it or drinks from it. The cost of Wellington Brook pollution may be the effect on children who grow up with too much screen time and no stream time.

Why was this problem not fixed sooner? Fixing sewers costs money. Even after money has been budgeted for work to be done by contractors, Belmont must manage the project, and that takes people. The Office of Community Development and our Department of Public Works are much smaller than they were 20 years ago, because people cost money. There are many wonderful things Belmont could do with more money.

Think about how much you would pay to have Wellington Brook clean enough that everyone could play in it, wade in it, and enjoy it.

What if the fixes do not work? Look for someone putting dog dirt into storm drains And think about how much you would pay to have Wellington Brook clean enough that everyone could play in it, wade in it, and enjoy it.

How to Find Wellington Brook

Wellington Brook runs mostly in culverts. It has tributaries on both sides of Route 60,
The Belmont Citizens Forum would like to thank Leader Bank for its generosity in hosting Belmont Citizens Forum meetings in the bank’s community room.

The community room is open for public use. To reserve the room for your group, contact the bank at (617) 489-5100

including Junction Brook in McLean Hospital

The brook runs parallel to the railroad tracks until it emerges from a culvert near the bottom or Common Street. From there it flows behind several churches and the library until it enters a culvert near Underwood Pool. It reemerges at Clay Pit Pond and goes into another culvert at the east end of Clay Pit Pond. That culvert continues east and passes under Blanchard Roads. The brook sees daylight from Blanchard Road to Blair Pond, then goes under the railroad tracks, leaving Belmont heading toward Little River, which joins Alewife Brook, then the Mystic River.

Sumner Brown is a Director of the Belmont Citizens Forum.
Volunteers Create New Western Greenway Trail

By Dan Lech

Another link in the chain of green space known as the Western Greenway has been put into place. As Roger Wrubel, director of Habitat, wrote, “A dedicated and determined group of Friends of the Western Greenway volunteers, under the leadership of Mike Tabczynski, spent six Saturdays from June through October creating a new 1.5 mile trail from Our Lady’s Church on Trapelo Road in Waltham through the Shady’s Pond conservation land up to the border of the Bishops Forest condo development.” Prior to this work, there were no official trails through this property. This project was not about improving trails, but creating them.

Four bridges and boardwalks now carry the path across a series of streams and wetlands. All of the materials for these structures had to be carried by hand to the construction site, sometimes more than half a mile from the nearest road. The roots and rocky soil complicated matters.

The work was carried out during some the hottest and most humid days of the summer with parts of the trail being cut through deep underbrush and “oodles of poison ivy” as Wrubel put it. Tabczynski noted “We also had to remove lots of trash left over apparently from old

One of the Western Greenway’s new boardwalks.
Tabczynski noted “We also had to remove lots of trash left over apparently from old hospitals. We found artifacts like old medicine bottles, china, and even scalpels.”

All that hard work paid off. The trail is a pleasure to walk on. A gently rolling path traverses diverse vegetation, rock formations and of course the picturesque wooden bridges.

More Connections to Come
This section of trail is currently not physically connected to other Greenway trails on either end. Wrubel is optimistic that this will be temporary. “On the north side, we will build a connector next spring from the Shady’s Pond trail from Trapelo Road into the Lot 1 trail system,” Wrubel said. He added, “We are also hopeful of getting permission to build a trail from Walnut Street in Lexington west into the Lot 1 trails.”

Lot 1 is a 47.5-acre site the state transferred to the Department of Conservation and Recreation in 2008. It will connect the Beaver Brook North Reservation on the former Metropolitan State Hospital grounds to the Trapelo Road corridor.

Lot 1 already has trails that had been neglected until last summer. Wrubel said, “In August, Allen West, a member of the Friends of Beaver Brook Reservation and a resident of Brookhaven in Lexington, organized a work party to clear all of the trails in Lot 1. These trails are now in very good shape for hikers and bikers. Look for a completed 6.5 mile Greenway trail from Habitat to the Paine Estate by next fall.” Progress indeed!

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

Woods along the Greenway

hospitals. We found artifacts like old medicine bottles, china, and even scalpels.”
Cool Belmont to Cut Belmont’s Carbon Use

By Meg Muckenhoupt

Belmont is a town of homes—and residential households produce 78 percent of Belmont’s carbon dioxide pollution, according to Belmont’s Climate Action Plan. If Belmont is going to meet the Climate Action Plan’s targets for reducing carbon emissions, Belmont residents need to use less fossil fuels. Fortunately, help is at hand. In October, Sustainable Belmont and 19 partner organizations (including the Belmont Citizens Forum) introduced the “Cool Belmont” program. Cool Belmont’s goal is to have a minimum of 500 households pledge to determine how much carbon dioxide their households produce each year, then take steps to reduce those emissions by 25 percent in 2011. A second town-wide kick-off is planned for early 2011.

Cool Belmont is an outgrowth of Belmont’s Climate Action Plan, created last year by Sustainable Belmont, a task force of the town’s Vision 21 Implementation Committee. In November 2009, Belmont Town Meeting endorsed the Climate Action Plan as “a reference document toward the goal of reducing the community’s carbon dioxide emissions eighty percent (80%) by 2050 based on 2007 emissions...”

The average Massachusetts home releases 60,000 pounds of carbon dioxide into the atmosphere every year.

Cool Belmont Partner Organizations

Belmont Boy Scout Troop 304
Belmont Citizens Forum
Belmont Conservation Commission
Belmont Farmers’ Market
Belmont Girl Scout Troop 71945
Belmont High School Community Service
Belmont High School Environmental Club
Belmont Historic District Commission
Belmont Housing Authority
Belmont Housing Trust, Inc.
Belmont League of Women Voters
Belmont Media Center
Belmont Religious Council
Belmont Victory Gardens at Rock Meadow
Belmont Vision Implementation Committee
Beth El Temple Center
Butler School PTA
First Church in Belmont UU
Wellington PTO

On a global scale, those emissions are part of the “greenhouse gas” pollution that is changing our world’s climate.

Both the warrant article passed by Town Meeting and the Climate Action Plan call for maximizing efficiency for town government, businesses, institutions, and residents. Cool Belmont is the first step, attacking Belmont’s largest source of carbon emissions first.

Calculate your Carbon Footprint

Cool Belmont aims to reduce Belmont residents' carbon footprint. Carbon footprint is another term for the total amount of carbon dioxide that is released by daily life activities like heating a home, using appliances, or driving to work. The average Massachusetts home releases 60,000 pounds of carbon dioxide into the atmosphere every year.

Still, it's hard to reduce your carbon footprint if you don't know what it is in the first place. The first step for Cool Belmont participants is to calculate their carbon footprints using a “carbon tracker” spreadsheet, available at www.
Reducing Carbon can be Easy or Easier

After you know your carbon footprint, you can reduce it. To help Belmont residents start their “Low Carbon Diet,” Sustainable Belmont has assembled a list titled “Steps to Save Money and Energy,” ordered from easiest to easy. Easiest steps include replacing conventional light bulbs with compact fluorescent bulbs, lowering your thermostat, and using cold water to wash clothes; easy steps are caulking and weather-stripping doors and windows and purchasing clean power through the Belmont Municipal Light Department’s Green Choice program. For ambitious carbon dieters, bigger steps include getting a home energy assessment, replacing old furnaces with higher-efficiency units, and getting more fuel-efficient cars.

If all Belmont households reduced their annual carbon output by 25 percent, the town could keep approximately 54,000 tons of carbon dioxide out of the atmosphere.

Put your Talents to Use!

Are you an artist?
A photographer?
A careful copy editor?

The Belmont Citizens Forum needs you to help produce this newsletter. Gain the admiration of your peers and the satisfaction of helping Belmont stay a livable, historic town.

To volunteer, e-mail info@belmontcitizens-forum.org.
By Sally Rifkin

It’s hard to believe that within the busy, fast-paced world we live in, there is such a natural space nearby as the Belmont Uplands, a 15.6 acre parcel abutting the Alewife Reservation. Landscape photographer Parrish Dobson’s exhibit, “An Urban Wild: A Photographic Exploration of the Silver Maple Forest and the Alewife Reservation,” shows beauty that we often overlook. The Belmont Citizens Forum sponsored the exhibit which was at Habitat October 2 to November 5; from November 12 to December 17, the exhibit will be on display at the Landau Gallery at the Belmont Hill School, 350 Prospect Street, Belmont.

The exhibit begins with photographs showing the Uplands’ rich forest with cityscape right behind it to set the stage. It then moves deeper into the Uplands. Some of the photographs, including “Unleaving,” have an illustrative quality, focusing on one small part of the big picture. Many others, including “Swamp Tree” and “Moss Branch” are more tangled and busy, drawing the viewer in to notice everything that is happening.

Dobson says that her complicated landscapes show “beauty in unexpected places.” The Belmont Uplands are clearly a different kind of beauty, but beauty nonetheless, and should be conserved to help all people to appreciate nature. On September 27, O’Neill Properties, the Uplands site’s owner, applied for a building permit to construct a 298-unit apartment complex there. Dobson has done what she could to help us see what we would lose if this plan were to turn into a reality.

Sally Rifkin is the Belmont Citizen Forum’s Newsletter Intern and a student at Belmont High School.
Swamp Tree
Transit Improvements Help Cyclists, Cut Traffic

By David Chase

The MBTA is improving bicycle support on subways, buses, and trains over the next two years. These changes are not only good for people who might want to avoid driving; they also bring more riders to the T at a relatively low cost per additional rider.

In September 2008, the MBTA opened two Pedal & Park facilities, otherwise known as “bike cages”. These enclosed bike parking areas have a capacity of 150 bicycles each. To increase security, each cage has a video camera and can only be opened with a Bike CharlieCard, available for free from staff at Pedal & Park stations. These cages have been successful; they are often full and they reduce theft. At Alewife, ca. 500 bicycles park each day, 300 in the cages. As of July this year, 20 bikes had been stolen from Alewife—but none from inside the bike cages.

Even with the cages, on good-weather weekdays almost all the racks outside the cages are filled with bikes, so there is ample demand. The two cages provide about a 10 percent increase in Alewife’s “parking” capacity without consuming otherwise useful space or adding to the road traffic. Another cage opened at Forest Hills in September 2009.

The American Recovery and Reinvestment Act funded the addition of up to eight more Pedal & Park bike cages. The cage in South Station is under construction, Oak Grove and Braintree facilities are out to bid, and those at Ashmont, Davis Square, and Malden are still being designed. To increase security, starting in 2011 the bike cages will require use of registered Bike CharlieCards to open the cages. To register your Charlie Card, visit www.mbta.com/riding_the_t/bikes/.

Compared to parking spaces, bicycle cages provide more than 1 space for every 9 square
feet of floor area. A nose-in car parking space (18 feet by nine feet) takes 18 times as much room, plus all the space required for lanes to access the spaces. The cages will cost a total of $4.8 million for 150 spaces/cage, or roughly $4,000 per space. The cost of each bicycle space, including the structure, video cameras, and card key access, appears to be about the same as a simple ground-level auto parking space; spaces in garages cost anywhere from $20,000 to $40,000 per space.

Bicycle accommodations in the bus system are also being improved. Right now, 70 percent of buses are equipped with front racks that can hold two bicycles. In the next two years, through upgrades and replacement of older buses, all buses will be equipped with racks. Soon, if you need to transport a bike on a bus you can be sure that the bus will have a rack on it.

**Commuter Rail adds Bike Parking**

The commuter rail is adding covered bicycle parking at 13 stations. This parking will not be as secure as Pedal & Park, but it will provide protection from the weather. Not all stations have parking lots, and many of them fill up in the early morning; there is demand, but no additional capacity. Improving conditions for bicycling commuters is a relatively cheap and space-effective way to increase use of the commuter rail, which helps defray the MBTA’s fixed costs and reduces regional automobile traffic. Bringing more passengers to the commuter rail on bicycles also has a much lower impact on the surrounding community than bringing them on cars.

The new double-decked passenger cars will have slightly improved bike accommodations, but non-folding bicycles are still not allowed on trains at rush hour in rush directions. Bikes take up space on crowded trains, but even on non-crowded trains, they board slowly, which can push the train off schedule and may delay later trains.

Off-peak trains are less crowded and schedule slips are less critical because they do not affect other trains. It is possible to stack five to 10 bikes in the free space near the door, if the conductor is willing to allow it.

**Putting Bikes on Trains Means Tradeoffs**

Some transit systems allow bicycles at rush hour. On the one commuter rail (California’s Caltrain) that does allow up to 40 bicycles per train at rush hour, the railroad deals with delays and crowding by using center-boarding cars with wide doors. Caltrain converted one end of a double-decker car into a bicycle area, with riders seated above on the second level. The aisle is wide, bicycles only inconvenience other bicycles, and new train/bicycle commuters quickly learn the ropes. Nonetheless, bicycle boarding times can delay express trains, and hefting a bicycle on or off the train requires some upper-body strength.

Creating a bike-car requires a tradeoff between maximum capacity and accommodating a wider variety of commuters. There is no extra cost to take a bike on the train, but the seats removed for 40 bicycles would hold about 80 commuters if the train were completely full. In Caltrain’s
case, the train usually has empty seats for regular commuters, while the bike-car often runs so full that sometimes cyclists are not allowed to board.

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**Commuters expect their transit to be regular and dependable.** If it is hard to know whether a bus will have a rack, then bicycle commuters will not rely on racks on buses, and generally not use them.

Some other transit systems (Portland, Oregon; Los Angeles) share the space for less-able passengers with bicycles. These spaces must be provided in case they are needed by handicapped passengers, but they are often available for other passengers. Because there is room for a wheelchair, and because they are close to entrances and exits, these spaces are also a good fit for a bicycle. Of course, if an elderly or disabled passenger boards the bus or subway, the bicycle must be removed.

Measuring demand for bicycle facilities can be difficult. Surveys have shown that most people are easily deterred from commuting by bicycle; in particular, if any portion of a commute is not comfortable for cycling, then most people will not bike. Commuters expect their transit to be regular and dependable. If it is hard to know whether a bus will have a rack, then bicycle commuters will not rely on racks on buses and generally not use them. Putting racks on buses is a relatively low-risk experiment because it does not displace other passengers; however, it is also an inconclusive experiment, because if the racks are frequently used, cyclists must weigh the chances of finding a rack that is empty.

Pedal & Park was a low-cost experiment that discovered a tremendous, latent demand. Based on its success, the program is being expanded. Caltrain’s bike cars succeeded, but they were a relatively risky experiment because of the passenger space required. It’s also worth noting that the Alewife Pedal and Park benefits from the Minuteman Trail. Commuters from Arlington, Lexington, and even Bedford have a stress-free route directly to the subway. Sheltered bike parking at commuter rail stations is likely to draw more cyclists if there are good routes to the stations.

David Chase is a Director of the Belmont Citizens Forum.
Brighton Street Path Construction Progresses

In mid-October, David Chase took pictures of the new paved path the Massachusetts Highway Department is building between Alewife Station and Brighton Street, Belmont.

The path runs alongside the Alewife Reservation for much of its length before joining land adjacent to the commuter rail tracks. The photo at right depicts the Alewife Reservation segment: below, the path near Brighton Street.

The target date for completing the entire project—including a new bridge over a culvert at Alewife—is May, 2012.

The newly paved path along the Alewife Reservation.

A view across the tracks at Brighton Street.
Environmental Events

By Sally Rifkin

Esplanade Association Fall Cleanup.
**Saturday, November 6, 10 a.m–3 p.m.**
Volunteers are needed to help with leaf raking and general cleanup around the Charles River. Apples and cider, gloves, and rakes are provided; volunteers are encouraged to bring their own gear as well. Free. Registration required. Sponsored by the Charles River Watershed Association. (617) 227-0365. www.crwa.org. Location TBA.

Habitat Intergenerational Program’s 13th Annual Fall Trails Day.
**Sunday, November 7, 12:30–3:30 p.m.**
Help Habitat get ready for winter by maintaining trails and removing invasive plants. Refreshments including fresh fall apples will be available. Free. Registration requested. Sponsored by the Massachusetts Audubon Society. (617) 489-5050. habitat@massaudubon.org. PHYL87@comcast.net. Habitat Education Center, 10 Juniper Road, Belmont.

**Wednesday, November 10, 7–9 p.m.**

An Urban Wild: A Photographic Exploration of the Silver Maple Forest.
**Friday, November 12–Friday, December 17, 8 a.m–5 p.m.**
Parrish Dobson's photographs of the Belmont Uplands will be on display. Free. Landau Gallery at the Belmont Hill School, 350 Prospect Street, Belmont. www.parrishdobson.com.

Tour of the Walter J. Sullivan Water Purification Facility.
**Monday, November 15, 6–7:30 p.m.**
The Cambridge Water Department is offering tours of the city’s Walter J. Sullivan Water Purification Facility. The program will include a presentation explaining how water that falls as rain in the suburbs 10 miles west of Cambridge is transported to Fresh Pond and becomes Cambridge's drinking water. Free. Registration required. Sponsored by the Cambridge Water Department. (617) 349-6489, www.friendsoffreshpond.org, friendsoffreshpond@yahoo.com. Walter J Sullivan Purification Facility, 250 Fresh Pond Parkway, Cambridge.

Geology of the Mystic River Watershed.
**Tuesday, November 16, 7:30–9 p.m.**

Discovering the Boston Harbor Islands.
**Monday, November 17, 7–8 p.m.**
Chris Klein, author of Discovering the Boston Harbor Islands, speaks about Boston’s 34 islands. Free. Sponsored by the Friends of Belle Isle Marsh. (617) 846-7418, friendsofbelleislemarsh@comcast.net. Location TBA.

Introducing Sally Rifkin

This issue marks the first appearance of Sally Rifkin, the Belmont Citizens Forum’s Newsletter Intern. Sally, a Belmont High School student, wrote both the Environmental events calendar and the article on Parrish Dobson’s exhibit.

The Belmont Citizens Forum is lucky to have such a talented, hard-working intern. We hope to work with her for a long time to come. Welcome Sally!
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

We need you.

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If you have questions, please call (617) 484-1844. 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.