



# Belmont Citizens Forum

Not Your Granddad's Belmont Springs

## Cleaning Up Belmont's Polluted Waterways

by Anne-Marie Lambert

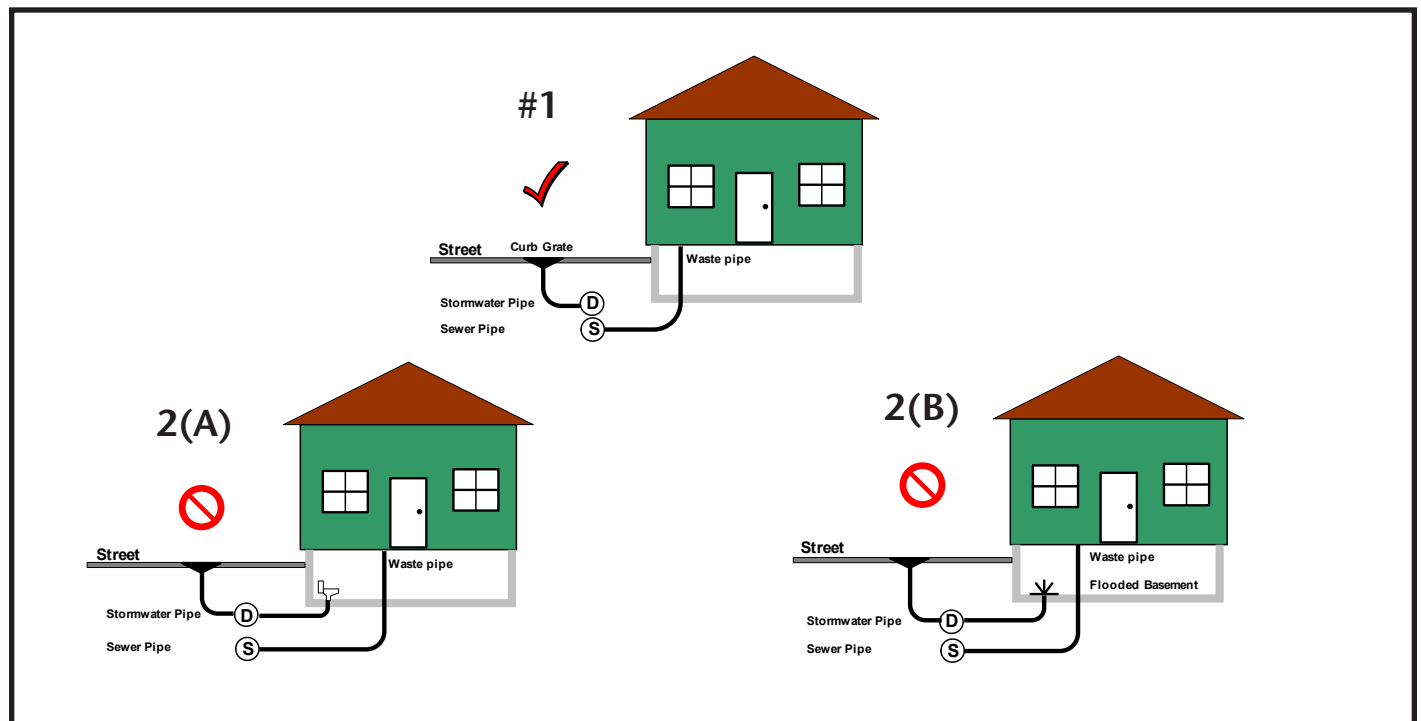
Belmont used to be known for the purity of water coming from Belmont Spring, the inspiration for a bottled water company (that was eventually bought by Coca-Cola and is now owned by Cott Beverage Company in Canada). You can still buy a bottle labeled "Belmont Springs," but there's no way the contents come from Belmont waterways today. As in other densely populated areas around the world, sewage is getting into our brooks and ponds.

Even after millions of dollars of repair work since 2011, the problem remains unsolved. Tests by the Mystic River Watershed Association show we still have a problem. (See the chart on page 5.) Now the town plans to change its approach to finding the sources of water pollution.

### A Hidden Problem

Most people don't notice Belmont pollution. Why? For one thing, people aren't getting sick: our taps dispense clean water from a mostly gravity-fed system originating at Quabbin Reservoir in western Massachusetts. For another, many Belmont waterways are hidden in conduits or on private property. Clay Pit Pond, with its peeling 30-year-old Health Department warning signs, is visible and accessible. The rest are not: Wellington Brook goes in and out of Clay Pit Pond in underground culverts that start behind the library and end in Cambridge. Little Pond, our largest water body, is only publicly accessible via little-known paths owned by the state's Department of Conservation and Recreation (DCR).

ILLUSTRATION BY FRANK FRAZIER



The house at top (#1) has the correct connection: house wastewater goes to the town sewer pipe (S). Example 2(A) shows a toilet illegally connected to the town stormwater pipe (D) instead of the town sewer pipe. In #2(B), it shows the effect: during a heavy storm, the stormwater backs up into the house, flooding the basement.

The rest of Little Pond is surrounded by private properties. On Belmont Hill, Winn's Brook is mostly hidden on private property until just past Belmont Center, where it goes underground to Little Pond. To see Beaver Brook, Atkins Brook, and others, you have to hike through DCR or Audubon conservation lands. Other than Clay Pit Pond, a tranquil but artificial and polluted water body, residents don't feel connected to our brooks and ponds.

### **GIS Makes Drains More Visible**

How does sewage get into our hidden waterways? Dirty water from our homes and businesses gets flushed into town sewer pipes that pass through a sequence of pumps to push

it out to a water treatment plant at Deer Island in Boston Harbor. These town sewer pipes are supposed to keep the sewage separate from the town drainpipes which carry rainwater to our brooks and ponds. You (or a curious young person in your home) can take a look at the sewer and drainpipes near your house by selecting the sewer and drain views in the GIS map system available online through the town's web site. (See the example on page 3.) Be sure to enlarge the map enough to see individual streets. Try to find the path from your home to the sewer pump station at Flanders Road, or the path from the nearest catch basin to an outlet to a brook or pond. Note that, unlike nearby Cambridge and Somerville, which started with the challenge of a combined sanitary and storm sewer system, Belmont has always had separate systems.

### **Issue #1: Illicit Connections**

The first problem we have in Belmont is that internal sewer pipes in some homes and businesses are connected to town drainpipes instead of town sewer pipes. This illicit connection typically happens when a contractor connects a basement sewer pipe to the wrong town pipe. Without coordinating with the town, it can be difficult to distinguish a sewer pipe from a drainpipe near a home's foundation. When the nearest sewer pipe is higher than your basement toilet and the nearest drainpipe is not, an illicit connection can also make a basement renovation project cheaper, since no pump system is required. It's illegal, but it's hard to detect using the manual dye tests and smoke tests the town currently uses.

### **Issue #2: Broken Pipes**

A second, bigger, problem is that Belmont sewer pipes sometimes crack or collapse. No sensor or alarm alerts us to this underground calamity, but the sewage leaks out with every flush, seeking a path to the lowest point. Sewer pipes are typically in a trench that includes drainpipes. These drainpipes have open joints, where the sewage can enter and find a path to the nearest waterway through an outlet intended for rainwater.

Why do town drainpipes have open joints underground? After a storm, groundwater levels rise. In order to provide a path for rising ground-

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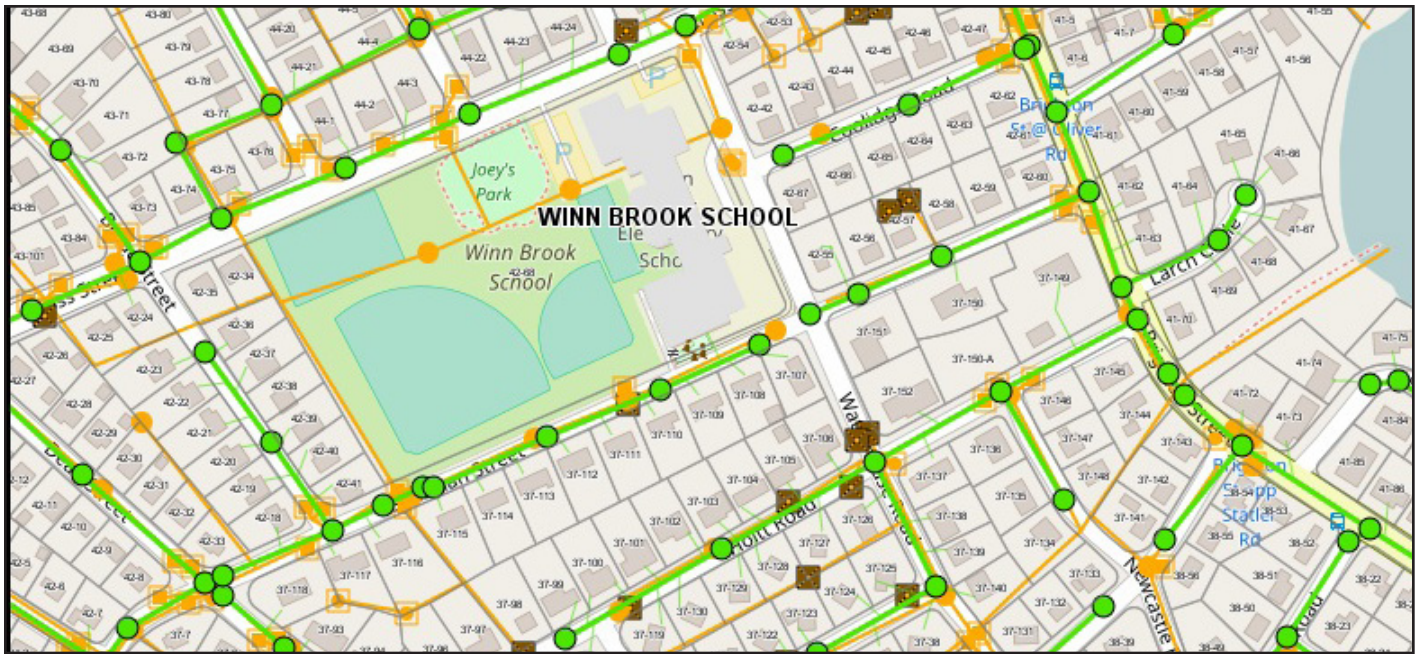
### **Newsletter**

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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 [info@belmontcitizensforum.org](mailto:info@belmontcitizensforum.org).

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Circles are manholes. The light gray lines are sewer pipes and drainpipes. You can see the difference in our color PDF online ([belmontcitizensforum.org](http://belmontcitizensforum.org)), or at [mapsonline.net/belmontma/index](http://mapsonline.net/belmontma/index). Go to "Layers," check off "Sewers," and then enlarge the map until the lines appear.

water to get to the nearest waterway instead of into someone's basement, town engineers leave joints open. If they were sealed, basement flooding would be an even greater problem than it is already. Measuring groundwater levels to understand where this vulnerability is highest seems like an opportunity for modern sensor technologies.

Why do sewer pipes crack in the first place? It's not just that they are old, though that is a factor. It's also due to poor quality sewer installations in the 1950s. In some neighborhoods, 50-year-old pipes are in more urgent need of repair or relining than 100-year-old pipes.

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### Issue #3: High Water Pressure

Water pressure from illegal sewer connections is a major reason sewer pipes crack. When sump pumps, gutters, and other drains are illegally connected to town sewer pipes instead of town drainpipes, heavy rains exert much more water pressure than the sewer pipes were designed

to carry. Higher pressure pushes more sewage through existing cracks and creates more cracks. This is difficult to detect with old-fashioned manual inspections. Addressing this issue may involve installing new stormwater drains.

### Measuring Intermittent Pollution

For all these reasons, the *E. coli* count in Belmont waterways can get dangerously high for wildlife, pets, and people who come into contact with them. However, *E. coli* dies off in time. Sewage pollution can get particularly bad for a few days after a major storm, when rain flows in and out of sewer and drainpipes and flushes a lot of sewage into the waterways all at once. Underground cracks or illicit connections can dump sewage into waterways even in dry weather. But if you don't measure water quality within a few days of a storm or after a recent flush through an illicit connection, you might miss the problem.

Even if you've measured a high *E. coli* count at one outlet at a point in time (e.g., Winn's Brook's outlet into Little Pond, October 2016), it can be hard to trace the culprit crack or illicit connection in the miles of town sewer pipes. Unless you are monitoring in multiple locations in real time, it's usually too late to find the upstream source. Multiple problems could





JOHN DICOCO

Wellington Brook feeds into Claypit Pond at the west end of the high school driveway, near the baseball field.

contribute to the high *E. coli* count—but town engineers don't know where they are.

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In addition to *E. coli*, the federal Environmental Protection Agency (EPA) also tests for the presence of longer-lasting pharmaceuticals in our waterways, such as caffeine, pain relievers like acetaminophen, high blood pressure medication, antidepressants, antibiotics, and other substances found in human waste. EPA testing done in 2011 showed the presence of some of these items as well as *E. coli* in Winn's Brook and Wellington Brook. Director of Community Development Glenn Clancy requested a round of water quality measurements at drain outlets in October/November 2016, to be followed by a second round this spring.

### Three Years from Detection to Repair

"[Water quality] investigation is not constrained by money and never has been," Clancy said. "Rather, it's the nature of the work. You have to find and fix one problem before discovering the next one . . . For all we know, we could be down to one property [left to fix]." Measurements from October 2016 will lead to investigations this spring that may continue through fall before problems are identified. Funds for those repairs are requested from the state Department of Environmental Protection's Intended Use Plan. The town waits for approval.

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[The town] will likely not request proposals until the summer or fall of 2018 for work that will get done in the spring or summer of 2019.

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It will likely not request proposals until the summer or fall of 2018 for work that will get done in the spring or summer of 2019. Only once that work is complete can new measurements determine if there's another problem



to investigate. As Clancy remarked in a recent interview, “It’s like peeling layers of an onion: you never know how many other problems are being masked by the one you found until after you fix it.”

### **A New Approach: Work Inward**

Clancy and Belmont’s engineering contractor, Stantec/FST, plan to change the approach to our water pollution challenges. Rather than prioritize inspections of drains nearest a polluted outlet, Clancy has asked Stantec/FST to propose an “outside in” approach to finding and fixing the sewer system’s problems. Instead of starting the inspections with the drains close to where pollution has been detected, he wants to inspect and fix problems on the outer edge of the “catchment area” for a polluted outlet. If done systematically, it becomes easier to declare victory on each section of the system, rather than waiting to see if the most recent repair is the last one and will suddenly give the “all clear” for the whole catchment area.

Stantec/FST is under contract to propose a plan for Belmont to find sources of poor water quality. Stantec/FST would also take into account the age and state of repair of each part of the

system. Inspections include monitoring flow meters during storms, as well as dye tests and smoke tests to find illicit connections. Closed-circuit TV (CCTV) inspections of town pipes can also be part of the examination.

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The goal is to minimize the disruption from digging up and repaving a road more than once.

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### **Repair-As-You-Go**

Historically, the bulk of underground infrastructure repair has been coordinated with the town’s Pavement Management Program, which is mainly focused on road repairs to address poor surface conditions. Based on the age and state of repair of sewer and drainpipes under the roads selected for repair, Clancy typically requests CCTV inspections for cracks so that underground work can be identified before repaving a road. The goal is to minimize the disruption from digging up and repaving a road more than once.

In the past, Clancy has waited to repair problems found by the town’s Illicit Discharge Detection and Elimination (IDDE) plan until they can be bundled with the next year’s pavement management contract. This year, instead of waiting, he plans to get the town Department of Public Works or a contractor to fix them as they are found. That work is likely to include repairing town-owned access lines to each house foundation. Clancy intends to wait for the next construction season only if town or contractor staff are not available, or if significant cost savings would result from bundling it into a larger construction contract next year.

### **Next Steps**

The capital budget for water and sewer repairs in 2017 rose from \$300,000 to \$500,000 after rate increases were approved in April 2016. The selectmen

**Mystic River Watershed Water Quality Grades and Compliance Rates – Calendar Year 2015**

GRADE	LOCATION	AVG for Meeting MA Stds for Boat & Swim
A+	Upper Mystic Lake	95.9%
A-	Mystic River (Salt Water)	88.9%
A-	Chelsea Creek	89.5%
A-	Mystic River (Fresh Water)	86.2%
B	Belle Isle Inlet	77.8%
C+	Aberjona River	65.9%
C	Malden River	63.3%
C-	Meetinghouse Brook	57.9%
D	Alewife Brook	49.5%
D	Mill Brook	48.6%
D-	Little River	44.3%
F	Mill Creek	33.5%
<b>F</b>	<b>Winn’s Brook</b>	32.7%
F	Island End River	25.4%

The above table is from the Environmental Protection Agency news release with several pages of informative data. 2015 is the latest report card. Learn more here: <http://bit.ly/2pvqZpz>



A warning sign at Claypit Pond.

approved this rate because of the need for more IDDE testing. However, the work required for infrastructure repairs under roads scheduled for repair is estimated at \$400,000 this year, leaving only \$100,000 for additional water pollution testing and for following through on work identified through the IDDE program.

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It is up to the selectmen and Town Meeting to decide whether the town prefers merely to meet regulatory requirements, or to prioritize restoring our ponds and rivers so they are safe for boating or even swimming again.

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Clancy is hopeful that for 2017 the “outside-in” and “repair-as-you-go” tactics will complement a capital budget process which includes bids that come in lower than estimated. As the budget for 2018 gets finalized, ultimately Clancy relies on elected officials to decide the importance of clean water in our brooks and ponds. It is up to the selectmen and Town Meeting to decide whether the town prefers merely to meet regulatory requirements, or to prioritize restoring our ponds and rivers so they are safe for boating or even swimming again.

In the recent interview, Clancy appeared open to additional ideas and technologies which will

help the town get ahead of this three-year cycle of test, investigate, bid, repair, and test again. While skeptical that it’s feasible, Clancy also appears open to ideas that will help the Belmont selectmen to understand the entirety of the problem of sewage in our waterways.

Whatever budget is approved, Clancy expects the town’s engineering contractors to use modern real-time sensor and other technologies to detect and fix Belmont’s water pollution challenges. Regardless of legal technicalities and requirements, Clancy says, “I’m of the mindset we’ve got to get on with it . . . At the end of the day, we have an obligation to solve the problem.”

Anne-Marie Lambert is a director of the Belmont Citizens Forum and cofounder of the Belmont Stormwater Working Group.

### Belmont Springs: A Brief History

Belmont Springs is the oldest brand of DS Services of America, which is now owned by Cott Corporation of Canada. Surrounded by a hand-built stone grotto, the spring and surrounding Cotton estate were a tourist attraction in 1875. By 1945, Belmont Springs was the largest producer of distilled water in the state. Along with Poland Springs it is one of the oldest brands of water in the country.

In the 1990s, when Coca Cola owned Belmont Springs, the FDA shut down the use of the spring due to concerns about chemicals from the nearby Belmont Country Club golf course. Today, water gets bottled and shipped to Belmont from Petersborough, New Hampshire, and other locations.

The unused spring can still sometimes be seen bubbling up from the old grotto, now surrounded by a parking lot full of distribution trucks. It’s hard to know if the private money spent maintaining the brand and fertilizing the golf course exceeds the public money spent cleaning up the waterways, which gave the brand its start and made the site an attractive place for a golf course.

*Anne-Marie Lambert*



If 2017 Is As Bad As 2016. . .

# Watering Trees in a Drought

by *Jeremy Marin*

We've just come through a very rainy April, but the summer of 2016 was one of the driest in recent memory. With global warming, the same conditions can occur again. If the summer of 2017 is dry, here's how to take care of your trees.

Just like there's no single best tree for all yards, there's no single best way to irrigate trees during periods of drought. The easiest and most effective options for one family will be difficult, frustrating, or impossible for others.

Not all trees have the same water needs or preferences either, so it is worth taking a few minutes to look online for information about the water requirements and drought tolerance of your trees, and writing the information down for future easy reference.

Before doing any watering or spending any money, learn how to check if your tree needs water. Using a shovel, screwdriver, or whatever sharp, pointy item you've got, jab it into the soil within the drip zone (the outer edges of the branches) of the tree to a depth of six to eight inches. If it comes out with dry and crumbly soil, it is time to water, preferably with a slow soak. If moist pieces of soil come up with the screwdriver, you can hold off watering.

If you water, make sure to water slowly, so the water can seep into the soil, and not at the base of the tree where fine roots are limited. Your tree's roots expand to the drip line, so if watering is necessary, water as much of that area as possible.

If your tree is a variety that needs more water, and rain isn't in the forecast, here are some

options that often make good sense in suburban Massachusetts, where population density means that trees aren't all that far from the house.

## Greywater Systems

The average home in Belmont uses 77 gallons of water per person daily; compare with usage from other Massachusetts towns at [http://archive.boston.com/yourtown/specials/water/massachusetts\\_water\\_usage\\_map/](http://archive.boston.com/yourtown/specials/water/massachusetts_water_usage_map/). If treated, some of that water can be used on trees and shrubs. Greywater systems will collect water from your clothes and dishwashers, showers and

sinks, but not your toilets (considered "black water"), and purify it enough for gardening, but not for drinking or bathing.

Having a professional greywater system installed is a wonderful, long-term, but expensive option. Massachusetts (as most states) has greywater regulations that typically require pumps, carbon filtration systems, and some significant new piping in the home. If you have lots of outdoor watering needs, greywater systems may provide a reasonable return on investment, but for most people, the return isn't there.

(The hope is that this will change, as systems improve and costs come down.)

Let's look at some more reasonably priced and free options, instead.



A tree's roots extend to the drip line, the horizontal reach of its branches. The whole area inside that approximate circle is where you should water.

PIXABAY STOCK

## Mulch, Mulch, Mulch

Mulch is the first and most important step in reducing water use for irrigation.

Try this experiment: Place two wet paper towels in your yard on a warm, sunny day. Leave one open to the elements (place a rock on it so it doesn't blow away), cover the other with mulch, and then guess which one will dry out first. If your soil isn't covered with mulch, it is going to dry out faster, just like that uncovered paper towel.

Using an organic mulch (preferably arborists' chips or shredded leaves, but never bark mulch), will help keep the soil moist longer, as well as provide other benefits to the soil. Be sure to leave a few inches of space around the base of the tree mulch free, and go out as far as you can within the drip zone of the tree. Adding two to six inches is a great way to help protect the soil and retain moisture.

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## Rain Barrels and "Warm up" Water

Rain barrels are perhaps the most familiar option to save water, but without rain they often become lawn sculptures. Drought means no rain, and the barrels don't fill themselves.

It doesn't have to be that way, even if there is a drought. You can be filling the rain barrel daily with perfectly usable "waste" water. Holding the water in the rain barrel until needed is easy, and allows you can hook a hose from there to drip irrigation or your preferred watering method, as needed.

The kitchen provides a great opportunity to collect water that can be repurposed for your trees and shrubs.

- Pour pasta, bean, and other cooking water into a container in your sink, rather than down the drain. When you're ready (and after the water has cooled), bring it outside to your



New leaves emerging on a healthy maple.

JOHN DICOCO

tree. In some cases, especially if you're boiling/pressure cooking dried beans, the water will have valuable proteins that will fertilize your soil.

- Wash your produce, hands, and dishes over a bucket in the sink to capture the water. With any soapy water, you need to exercise some caution. First, food residue can attract bugs or critters, so try to limit residue or filter it out. Also, soapy water contains sodium which can damage grass and other plants if sprayed on their leaves, so this is best used in mulched areas. (You can wet hands over the bucket but rinse the soap into the sink, avoiding the problem.)

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If your shower, bath, or faucet takes a while to warm up, then capturing that cold water may be a good option.

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- If your shower, bath, or faucet takes a while to warm up, then capturing that cold water may be a good option. The obvious advantage is that the water is exactly the same as what comes out of the spigot. The difficulty for many is how to capture and then transport that water to where it is needed. (See "Rob Peter to Pay Paul" below.)

- Dehumidifier water, air conditioner condensate, and similar opportunities vary from home to home. Look around and see what you can use.

Another option is to empty the "warm up" water into one big container, such as a rain



barrel. This will allow you to collect a bunch of water in one spot and use it as necessary. Just be careful about which types of water you're saving and for how long. You don't want a bunch of food-tainted water sitting in a rain barrel for any length of time, where it can smell and breed harmful bacteria.

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**If hauling water from the bathroom shower to the rain barrel or tree outside doesn't fit your preferences, keep a container in the bathroom.**

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### **Rob Peter to Pay Paul**

If hauling water from the bathroom shower to the rain barrel or tree outside doesn't fit your preferences, keep a container in the bathroom.

Your toilet probably uses anywhere from 1.6 to 5 gallons per flush. Capture that "warm up" water and use it to flush your toilet. This water from the shower can be poured into the tank or directly in the bowl. If you're capturing sink water as you wash your hands, that should only go in the bowl.

Pouring water in the toilet obviously isn't watering your trees or shrubs, but it is offsetting the water you may be using outdoors, making it a great practice for anyone capable of doing it.

### **Drip Irrigation**

Drip irrigation for trees can take a few different forms and can vary in price from free to, well . . . not free.

On the free end, you can ask for a five-gallon bucket from your favorite restaurant, poke or drill one or more 1/8" holes in the side near the bottom, and fill it with water. You can set up several buckets around the yard or just move one around. Or try overturned two-liter bottles that you fill individually or large 18-gallon totes or any other container. You can even paint them for a better aesthetic.

Among the paid options, your wallet is your guide. You can get a simple length of drip line or soaker hose for an as-needed watering, allowing you to remove the whole thing when it isn't needed. Or you can install an in-ground system. (Studies I've seen show that in-ground systems, which are the most expensive option, routinely waste lots of water and money.)

Another potential compromise is a semi-permanent above-ground system, such as those widely available online and at big box hardware stores. These DIY systems are easy to assemble with little more than clippers, and can be hooked into a spigot timer that allows you to water at set times.

### **Tips for Grass and Shrubs Too**

All of these recommendations apply equally to trees, shrubs, and flower gardens.

Options for the lawn are basically three:

1. Let the grass go dormant, where it will turn brown but not die.
2. Plant drought-tolerant grasses.
3. Collect excess water (as in the article) in a rain barrel or similar vessel, then use an electric pump to force water out a hose to spray by hand or through a sprinkler.

Jeremy Marin is an Arlington resident who spends his time tending his own garden and helping others in person and on his website: <http://www.arlingtonheet.org>.

## **WE'RE SEEKING CONTRIBUTORS**

**Would you like to write articles?**

**Shoot photos?**

**Illustrate objects or ideas?**

**BCF Newsletter is seeking talented high school, college, or adult**

**writers, photographers, and illustrators.**

**We can't offer payment but we do provide exposure, credits/bylines, and sincere gratitude.**

**Contact:**

**[info@belmontcitizensforum.org](mailto:info@belmontcitizensforum.org)**

# Belmont Farmers' Market Kicks Off on June 8

The Belmont Farmers' Market opens on Thursday, June 8, 2–6:30 PM, in the Belmont Center municipal parking lot, rain or shine. Now celebrating its 12th year, the Market offers a variety of organic and conventionally grown and produced food in a range of prices. Pick up fixin's for a healthful and satisfying dinner, and make sure the visit our new neighbor, Foodie's, to fill in the gaps. Visit [www.belmont-farmersmarket.org](http://www.belmont-farmersmarket.org) for this season's vendors and updates, and follow them on Twitter and Facebook.

The Market is close to the MBTA commuter rail station, and #74 and #75 bus stops in Belmont Center. There is bicycle parking, and you are encouraged you to walk if you can. If you drive, note that there are the new parking regulations for both the center's streets and parking lot.

For weekly Market news during the season, including performances, tastings, Storytime, guest vendors, and seasonal recipes, sign up for our weekly e-newsletter by contacting [newsletters@belmontfood.org](mailto:newsletters@belmontfood.org) or visiting <https://belmontfarmersmarket.org/social-media/>.

## Food Assistance Benefits the Community

The Market accepts WIC and Senior FMNP coupons. They can be used at vendors selling eligible products and you can spend double the amount of the coupons. The Market reimburses vendors for the match. Market vendors also accept SNAP benefits (food stamps)



PHOTOS COURTESY OF BELMONT FARMERS MARKET



and match up to \$25 for each SNAP shopper every week, thanks to generous donations to the Market. Please pass the word along to friends and neighbors so the Farmers Market can better serve the community.

Visit <https://belmontfarmersmarket.org/snap/> for complete details on these programs.

See you at the Market!

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



# Engineers Win Award for Trapelo Road Upgrade

by Sue Bass

How does a municipal project get done, in Belmont or anywhere? What's the spark?

The redesigned and newly paved Belmont Street/Trapelo Road stretch through Belmont—from the Waltham line to the Cambridge line—recently won an award from the American Council of Engineering Companies of Massachusetts for the BSC Group, the town's longtime engineering consultant. "Incorporating bicycle lanes, pedestrian accessibility, and traffic calming measures, the \$17.1 million roadway reconstruction project was one of the first designed in conformance with the MassDOT Highway Design Guidebook," the citation reads. "Distinguishing project features include coordination with the MBTA trackless trolley, incorpo-

ration of 350 street trees, and interconnection of 13 signalized intersections."

That new roadway and some of the new buildings along it were inspired in part by work that the Belmont Citizens Forum did more than 15 years ago. Conscious that the organization was seen as implacably antidevelopment (since we were litigating to prevent construction on open space at McLean Hospital), we decided to consider what development we'd favor, and where.

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The \$17.1 million roadway reconstruction project was one of the first designed in conformance with the MassDOT Highway Design Guidebook.

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Trapelo Road, looking west from the corner of Williston Road in Cushing Square. Improvements include the center divide, clear bike lane markings, enlarged crosswalk, newly paved and expanded sidewalk, and covered waiting area at the bus stop (at left.).

The Belmont Street/Trapelo Road corridor—wide, shabby, and dangerous to cross—sprang quickly to mind. Though it crosses two of the town’s three major business districts, it had received little attention. A new Planning/Zoning Committee of the Citizens Forum gathered in the spring of 2002. We started brainstorming and research. Teams of members photographed every building along the two-and-a-half-mile artery and assembled the photos on the walls of Katharine and Michael MacPhail’s former architectural studio in Cushing Square (about where Vicki Lee’s is now.)

The committee recruited two groups of students to study the corridor. The Community Design Studio of the Boston Architectural Center started work in January 2003 and exhibited its recommendations in June of that year at the MacPhails’ studio. A graduate school class from MIT’s Department of Urban Studies and Planning worked in the fall of 2004 and presented its report at Town Hall in December 2004.

The BCF Planning/Zoning Committee created its own program to highlight the decades of neglect of this major artery, which we called Belmont’s Main Street. The committee’s video, *Creating a Vision*, was first shown in April 2003. It aimed to redefine the corridor from a commuter thoroughfare into a neighborhood street that would serve residents and shopping districts.

During the discussion at the Belmont Studio Cinema that followed that video, Alan McClennen, Arlington’s town planner, emphasized that the prime customers for those local businesses live within half a mile of the shops.

### **\$30,000 Planning Grant**

The town was also active. In September 2002, Belmont received a \$30,000 planning grant from the Metropolitan Area Planning Council, and the Belmont’s Vision 21 Committee began forming the group popularly called BEDPG,



pronounced “bed-peg,” the Business and Economic Development Planning Group, which filed its final report in March 2005. The town’s Traffic Advisory Committee focused on the corridor, mandating a narrowing of Trapelo Road—a “neckdown” in traffic jargon—at Hawthorne Street, where many students crossed to reach the Butler School. Similar neckdowns became part of the final design. Finally, after many glitches, the roadwork is done.

Changes in the buildings that line the road are taking longer. Belmont’s Planning

Board was working in the mid-aughts to rethink the zoning. After a chemical spill was reported in 2004 at the site of Tops Cleaners on Common Street, the Planning Board began in 2006 to consider an overlay rezoning district for Cushing Square. Hundreds of hours of meetings led to the Cushing Village development that is finally getting underway after delays for financing. Other appealing businesses have opened in that square. The area around the Studio Cinema is also perking up, and plans are in the works to spruce up Waverley Square.

Is the work so far perfect? Bicyclists would say not. The state-mandated bike lanes are narrow, and they’re not protected from motor vehicle traffic, as cyclists would wish. The road and sidewalk reconstruction seemed to take inordinately long; residents had to put up with noisy diesel buses instead of silent trolleys for several years. How comfortable Belmont will be with the three-and-a-half-story Cushing Village development is still a question.

But if you take a look at the corridor in 2003—the *Creating a Vision* video is available in the library—you’ll see plenty of changes for the better.

Sue Bass is director emerita of the Belmont Citizens Forum Newsletter.

JOHN DICOCCO



It's Now "The Bradford"

# Cushing Village: New Name, Design Tweaks

by John DiCocco

At an April 27 meeting in the Town Hall art gallery, Toll Brothers Apartment Living representatives updated the community on construction and design plans for Cushing Square in the upcoming weeks and months. The developer has changed the project name from "Cushing Village" to "The Bradford."

The Cushing Square Neighborhood Association has been pressing Toll Brothers for more timely and informative input on the project's progress and planning, particularly in regard to environmental concerns. There is a significant amount of contaminated soil to be removed (from spills by Tops Cleaners years ago), among other concerns.

Approximately 55–60 people attended as Otto Weiss, Toll Brothers project manager, and Bill Lovett, Toll Brothers director of acquisitions and development, took questions for an hour and then described the most recent design changes and the anticipated next steps in construction. Resident questions focused on parking and traffic and pedestrian flow, air monitoring procedures, toxic waste removal, noise, and timelines.

In issuing permits to build, the town had earlier addressed and approved several of the traffic issues, and the Toll representatives' answers seemed to satisfy the attendees for the time being on the remaining questions.

## The Timeline

Weiss said, "The Winslow Building on Trapelo Road will open first in the summer of 2018. The Hyland, on Common Street, and the Pomona on the corner of Trapelo and Common, will follow on in late 2018, and summer 2019, respectively."

Lovett explained that the previous owner had designed the project from the outside-in, and that the current revisions to the project were driven by functional changes to the living units, which in turn led to changes to the façade.

Revisions made to date include:

- Reduced the units from 115 to 112
- Eliminated the roof deck from the Winslow
- Rearranged and/or enlarged many windows
- Replaced stucco siding with more brick
- Removed the smaller decorative tower (facing Common Street) from the Hyland building



2012 site plan, just to show position of buildings.

## Site Preparation

As to the ground preparation, several phases are underway at once. The mechanical mixing of the liquid neutralizing agent to remediate the contaminated soil is scheduled to begin in mid-May. Once contaminant levels are sufficiently reduced in accordance with state Department of Environmental Protection regulations, the soil can be transported off site. Weiss stated that the whole process will take about six to eight weeks.

Meanwhile, Toll Brothers' contractor Nauset Construction (Needham, MA) is expected to begin dewatering the site in about three to four weeks, to lower the water table to prepare for excavation. They will then begin excavation of soil to prepare for below-ground construction of the Winslow and Hyland buildings.

Toll Brothers has offered assurances that their environmental consultant, Sage Environmental, is monitoring outdoor air quality at various points around the site. They also stated that they have offered indoor air sampling to homeowners whose properties abut the project. When asked, Weiss stated that indoor air sampling of properties across Trapelo Road would be part of the Phase II environmental work.

Glenn Clancy, Belmont community development director, indicated that John Thompson, licensed site professional and environmental consultant geologist, will continue to work with the town, visiting the work site every other week.

*John DiCocco is editor of the BCF Newsletter.*



## Tree Plantings and Pleasant Street Pickup

# Lone Tree Hill Annual Spring Volunteer Day

by Radha Iyengar

On Saturday, April 29, the Belmont Citizens Forum (BCF) in conjunction with the Judith K. Record (JKR) Memorial Conservation Fund held its Fifth Annual Lone Tree Hill Volunteer Day. The rain held off and the volunteers came out in full force.

This year the work was divided between planting trees along the Pine Allee, and cleaning up the trash along South Pleasant Street (across from Star Market and Artefact Home & Garden).

In 2015, the JKR Memorial Conservation Fund engaged Tree Specialists, Inc. of Holliston, MA, to inspect the health of each tree along the Pine Allee. They subsequently embarked on a multiyear project to restore the allee. The allee consists of four rows of native white pines, *Pinus strobus*, estimated to be more than 100 years old. The Pine Allee is approximately 921 feet in length, has 165 existing white pines and is missing approximately 182 white pines. The largest-diameter tree at breast height is 33 inches versus the smallest at 5 inches. The trees are laid out in a triangular pattern, spaced roughly 10 feet apart, and run roughly east to west. There is a 10-foot-wide trail down the middle of the allee.

White pines have a shallow root system, which makes it easy for them to blow over in a windstorm, but also makes it easy to transplant them. Because they are so close together, the trees in the windbreak tend to concentrate their growth near the top to compete for light, which makes them more vulnerable to wind and snow load. Thus the trees were pruned earlier this year to reduce this risk.

Under the guidance of Tree Specialists experts David Ropes, Barbara Keene, and Nick Cokonis, volunteers planted 45 white pines in record time. The Belmont Land Management Committee purchased 30 of them and volunteers also transplanted 15 white pine saplings that were located near the Pine Allee. The Tree Specialists will be responsible for watering the trees and will monitor the growth of the three types of planted saplings to determine if one type thrives best for future plantings.



PHOTOS BY DAVID CHASE AND RADHA IYENGA



Meanwhile, at the Pleasant Street end of the Lone Tree Hill conservation land, enthusiastic volunteers collected 15 large bags of trash, three boxes of recyclables, one box of broken glass, and two boxes of plastic bags, as well as a sleeping bag.

More than 50 volunteers worked on the projects. Among them were students from Belmont High and Chenery Middle School, two Judith K. Record Fund Trustees, and seven BCF board members.

A special thanks to Tree Specialists who flagged the Allee beforehand and supervised and instructed the volunteers; to Roger Wrubel, Habitat director, and Sandy Vores, Habitat property manager, who sent 10 volunteers from their Habitat Annual Volunteer Day to lend a hand at the Pine Allee; and to Michael Santoro, DPW Highway Division manager, and his staff, for picking up the trash. Star Market allowed volunteers to park in their parking lot.

Radha Iyengar is treasurer of Belmont Citizens Forum and organizer of BCF Volunteer Day.

Photos, page 14, top and middle: Volunteers gather to receive instructions for the tree planting. Bottom: David Chase (left) and David Merfeld (hidden!) transported trees via bike.

Page 15 top: Evie Malliris gathers the trash collected along Pleasant Street. Middle: Kit Dreier, president of the JKR Fund (left), with David Ropes and Barbara Keene (Tree Specialists). Bottom: Barbara Keene setting a white pine in place.

***For these photos and more in color, please visit our website, [belmontcitizensforum.org](http://belmontcitizensforum.org)***

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**Community cosponsors include:** Belmont Land Management Committee for Lone Tree Hill, Mass Audubon Habitat Sanctuary, and Sustainable Belmont.





# Still Awaiting Beaver Street Right of Way Waltham Trail RFP Update

by John Dieckmann

Late in March, the city of Waltham released the request for proposals (RFP) for the detailed design of the Waltham segment of the Wayside (aka Mass Central) Rail Trail. I attended the bidders' meeting, which was held at Waltham City Hall on April 13. It was well attended by about a dozen engineering and design firms, along with two Waltham city councilors, the executive director of the Waltham Land Trust and two board members, and the chairman of the Waltham Conservation Commission.

Design firms asked a variety of questions, primarily to obtain further definition of the scope of the effort. The city purchasing department and others provided the answers.

The RFP requests a complete detailed design of the main part of the trail from Beaver Street to Stow Street (just inside Route 128) and conceptual designs for the segments at the town borders, from Stowe Street to the Weston line and from Beaver Street to the Belmont line. The Beaver Street to Stowe Street section (about 3 miles in length) uses the abandoned Central Mass Railroad right of way. The RFP requires the design to meet DCR and MassDOT standards of eight road crossings at grade and the rehabilitation of two major bridges (over Linden Street and over Lyman Brook).

Stow Street to Weston is limited to conceptual design work because there is some uncertainty regarding possible future reconfiguration of the Route 117 (Main Street) overpass over Route 128. The Beaver Street-to-Belmont section so far lacks have a definite right of way, so the aim of



JOHN DICOCO

the conceptual design will assist with securing a right of way.

There seemed to be a high level of interest on the part of the engineering firms to pursue the project. The original April 21 deadline for proposals was extended to May 5 at the request of several firms.

The RFP specifies that a Wayside Trail Review Committee will be appointed to help to guide the design process (and will be involved in the process of selecting the engineering contractor). The committee will consist of one representative each from the mayor's office, DCR, the Waltham City Council, the Waltham planning director, and the Waltham Land Trust.

The complete RFP and four addenda can be found at <http://bit.ly/2qoIW99>

John Dieckmann is a Belmont Town Meeting member and board member of the Waltham Land Trust and the Belmont Citizens Forum.



Happy Trail to You

# Community Path Route Alternatives Viewed



One possible route keeps this section of the community path (curvy light gray line in center) north of the train tracks as it crosses over the Leonard Street tunnel.

by John Dieckmann

On April 26, the Community Path Implementation Advisory Committee (CPIAC) and Pare Engineering, the Community Path Feasibility Study contractor, held a public meeting to present their final evaluation of route alternatives for the path, construction cost estimates, and potential funding sources.

From west to east, the end-to-end route that ranks highest in the evaluation methodology consists of the following segments:

- At the Waltham city line, the path would be on the north side of the commuter rail tracks, then as it approaches Waverley Square it rises to street level and crosses Lexington Street, Waverley Square itself, and Trapelo Road. Both street crossings would have signals. In Waverley Square, the commuter rail station would be covered over, creating additional surface space at ground level. Elevators providing access to the station would be included.

## Over the Tracks, Under the Tracks

- The route continues eastward along the south side of the commuter rail tracks until it reaches the town yard, then continues along the edge of the town yard adjacent to the tracks.

- Leaving the town yards, the route enters a long ramp that would be constructed behind the Belmont Village parking lot, then crosses the commuter rail tracks on an overpass to reach the south side of Pleasant Street. The route continues between Pleasant Street and the commuter rail tracks, past the Clark Street pedestrian bridge to

the Belmont Center commuter rail station area, and crosses the stone railroad bridge, still on the north side of the tracks.

- The route continues along the north side of the tracks to the Alexander Avenue Extension, crosses under the tracks in a pedestrian tunnel to be constructed, thence along the south side of tracks (behind the high school) to Brighton Street. By crossing the tracks and Brighton Street, via a signalized intersection to provide safe crossing, the path connects with the existing Fitchburg Cut-off Path.

## Waverley Station Improvements Coming

The estimated construction cost for this end-to-end route is \$27.5 million. A substantial portion of this estimated construction budget is for redoing the Waverley commuter rail station and for construction of the pedestrian tunnel at Alexander Avenue. The Waverley Station redo is an economical solution to the need to bring the station into compliance with the ADA by providing elevator access to the station from street level. The need for a safe pedestrian crossing of the tracks between the Winn Brook neighborhood and the high school and Concord Avenue has long been recognized, but difficult to fund.

The major funding source for the project would be federal highway funds allocated in the Boston Metropolitan Planning Organization Transportation Improvement Plan. Initial funds for detailed design could come from a combination of town community preservation funds and privately raised funds.

## Poetry Walk at Rock Meadow

Anne-Marie Lambert (far left) and Kevin Gallagher (sixth from the left, with sunglasses), local poet and author of the recently published book *Loom*, about the Massachusetts textile industry and its relation to the surge in demand

for slave labor in the South in the 19th century, led a walk at Rock Meadow on April 29.

"Through poetry," said Lambert, "we explored the landscape and history of this part of Belmont and Waltham."



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- \_\_\_ Writing or editing for the Newsletter
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## Environmental Events

### Belmont's Semiannual Big Recycling Day

**Saturday, May 13, 9 AM–1 PM**

The semiannual Big Recycling Day is your chance to clean out all that stuff you didn't want and includes paper shredding, electronics, rigid plastics, eyeglasses, books, CDs, DVDs, propane tanks, and bicycles (no cardboard or styrofoam). Info at [belmont-ma.gov/recycling-trash-information](http://belmont-ma.gov/recycling-trash-information), or 617-993-2689. Note: Belmont Residents only. ID required. *Town Yard, 37 C Street, Belmont.*

### Fresh Pond Day

**Saturday, May 20, 11 AM–3 PM**

Celebrate the land, water, wildlife, and people that make Fresh Pond Reservation a unique and vital part of Cambridge. Fresh Pond Day is the Cambridge Water Department's annual tribute to this vital natural resource, an invaluable sanctuary for wildlife, and a beloved recreational escape in the city. Wildlife presentations, a wildlife and bike parade, live music, facepainting, truck climb-abouts, tours, and more. Free and open to all. For more information, contact Martine at 617-349-6489, [mwong@cambridgema.gov](mailto:mwong@cambridgema.gov). *The Water Purification Facility at Fresh Pond Reservation, 250 Fresh Pond Parkway, Cambridge.*

### Boston Area Sustainability Group

**Wednesday–Friday, June 7–9, 11 AM**

Local Sustainable Economies: Building Entrepreneurship & Community Resilience  
*Cambridge Innovation Center, Venture Cafe, One Broadway, Cambridge.*

### Cleantech Women: Breaking the Green Glass Ceiling

**Tuesday, May 23, 8:30–10 AM**

Hear from a panel of women breaking through in the clean energy industry and how they're achieving their career goals. Talk with industry movers and shakers, make professional contacts, share experiences with your peers and get inspired to take the next steps in your career. Moderator: Doug Banks, Executive Editor, *Boston Business Journal*. Panelists: Rebecca Tepper, Energy Chief, Massachusetts Attorney General's Office; Wendy Rowland, Marketing Assistant, Hancock Software; Gail Greenwald, Partner, Clean Energy Venture Group. *Mass CEC, 63 Franklin Street, 3rd Floor, Boston.*

### Sustainable Belmont Meetings

**Wednesdays, May 24, June 7, 7–8:30 PM**

Sustainable Belmont's regular monthly meeting. *Assembly Room, Belmont Public Library, Concord Avenue, Belmont.*

### Fresh Pond Monarch Watch

**July 11:** Milkweed Planting in Lusitania Meadow

**July 16 & 18:** Pod Patrol Weed-Out

**July 14, 20, & 28:** Caterpillar checkups—Come see how they are growing

**August 6:** Butterfly release parade

The beautiful and ecologically significant monarch butterfly has been in decline worldwide in recent years and its annual migration down the eastern seaboard is believed to be under threat. This raise-and-release project is a combination of volunteer stewardship, invasive plant management, native re-vegetation, and public education all aimed at encouraging a monarch population at Fresh Pond. For more information, contact Martine at 617-349-6489, [mwong@cambridgema.gov](mailto:mwong@cambridgema.gov). *250 Fresh Pond Parkway, Cambridge.*

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