



Belmont Citizens Forum

How to Fix Belmont's Traffic

By Jessie Bennett

Traffic in greater Boston has gone from an annoyance to a crisis. The recent *Congestion in the Commonwealth* study produced by the Massachusetts Department of Transportation (MassDOT), outlines how increasing congestion is affecting travel times and access to jobs.

Two key trouble areas are Fresh Pond Parkway and the Route 2 approach to Alewife. High congestion in these areas causes the cut-through

traffic noted in Belmont's *Town Wide Traffic Study*, presented by BSC Group in April.

If cars are gridlocked in one area, drivers will look for other ways around it, either by using GPS apps or by experimentation. The waves of cars entering Belmont at Park Avenue and Pleasant Street, traveling down Concord Avenue, Brighton and Blanchard streets are avoiding the bottleneck on Route 2. Cut-through traffic also likely contributes to cars entering Belmont via Concord Avenue from Lexington and via Trapelo Road from Waltham.



BSC GROUP

Morning travel (7-9 AM) traffic numbers in Belmont. Yellow roads show north/west traffic. Dark blue roads show south/east traffic. Source: "Town Of Belmont Town Wide Traffic Study," BSC Group, April 1, 2019.

Belmont Citizens Forum

Officers

Grant Monahon, President
John Dieckmann, Vice President
Evanthia Malliris, Secretary
Radha Iyengar, Treasurer

Directors

Sumner Brown
David Chase
Vincent Stanton, Jr.

Newsletter

Meg Muckenhaupt, Executive Editor
Mary Bradley, Managing Editor
Sue Bass, Newsletter Committee,
Director Emerita

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.

The *BCF 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
bcfprogramdirector@gmail.com

belmontcitizensforum.org

© 2019 Belmont Citizens Forum. All rights reserved.

As the saying goes, “You aren’t IN traffic: you ARE traffic.” Many of us choose to drive instead of taking public transit due to many factors: ease of access, perceived reliability, weather, assumptions about safety, individual schedules, habit, and comfort. The wide variation in weather conditions and daylight hours throughout the year in New England also affects decisions. On any given day, a “hiccup” in any of these systems could result in far longer driving travel times.

Personal decisions about
transit affect the community
directly every day.
Our choices have an
immediate impact on local
air quality. Our carbon
emissions contribute to
global climate change.

In commute planning, each of us considers the lack of accessibility at many points in the transit system (especially if we need to navigate a stroller or have mobility challenges) as well as crowding on the T at peak times. Parents add the need to drop off and pick up kids to their calculations. I remember times when I’ve been stuck on the T between stations, wondering if I would make it to our daycare in time to avoid being penalized. I’ve stood in the Harvard Square busway, wondering if the 75 would perform the “disappearing bus trick,” where the bus I’ve been tracking on my phone seemingly vanishes, leaving me to wait another 20 minutes for the next one.

Personal decisions about transit affect the community directly every day. Our choices have an immediate impact on local air quality; our

carbon emissions contribute to global climate change. Transportation accounts for nearly a third of US greenhouse gas emissions, and a majority of those emissions are from cars.

Increased traffic in our neighborhoods also affects the quality of life in those neighborhoods and how safe we feel as pedestrians. When a neighborhood street lacking adequate sidewalks and safe crossings sees a dramatic spike in traffic, the walkability of that street takes a tremendous hit.

So what are we doing in Belmont to address these issues?

The Transportation Advisory Committee is developing a traffic-calming policy to help neighborhood streets affected by speeding and cut-through traffic. Streets will be considered for traffic calming when they come up for repaving through the Pavement Management Program (PMP) or if residents petition the town for relief. Changes to the PMP in 2018 allow money to be spent on sidewalks, but funding for dramatic improvements will be harder to find.

A \$1.3 million Safe Routes to Schools project through the Massachusetts Department of Transportation will improve conditions near the Wellington School. It is scheduled for 2021.

The town received a state grant this spring to improve the Lexington and Sycamore intersection where a Belmont woman was tragically killed in 2018.

Improvements to pedestrian and bicycling infrastructure are underway in the Hittinger neighborhood and planned for the Goden and School neighborhoods.

The town is working with a consultant to help prioritize projects for the Complete Streets funding program. Once the priorities are set, the town will submit a five-year plan. Belmont will be eligible for up to \$400,000 a year for projects that serve pedestrians, bicyclists, and transit users as well as motorists.

The Community Path will vastly improve bicycle infrastructure in town and help get more commuters in the western suburbs out of their cars.

The High School Traffic Working Group was formed by the Select Board in response to concerns over the impacts on neighborhoods abutting the Belmont Middle and High School.

Safe Routes to Schools

Safe Routes to Schools is a MassDOT program that works with communities to increase safe biking and walking among elementary and middle school students. The program provides education, evaluation, grants and other forms of support to improve infrastructure and encourage safe walking and biking.

The Belmont Safe Routes to Schools group includes representatives from each of the elementary schools, Chenery Middle School, members of the community, and town staff. To find out more about Belmont's Safe Routes to Schools group, email jessiebennett@gmail.com or reach out to your PTA/PTO leadership.

These approaches can help mitigate traffic's impact in Belmont, but we cannot eliminate our traffic woes by taking action only at the local level. Any attempts to redirect cut-through traffic will also affect residents and will only work as long as the traffic does not worsen.

As demonstrated in the MassDOT report, congestion is a regional issue and calls for regional solutions. State Senator Will Brownsberger has been active on this issue. I recommend his blog at WillBrownsberger.com for updates.

We can also get involved in regional advocacy through groups like Transit Matters, which is dedicated to improving Boston area transit, and by staying informed about the MBTA and the Baker administration's plans for transportation. A better, less congested future is possible only through good planning and financial investments.

Jessie Bennett has lived in Belmont for 12 years and is a Precinct 1 Town Meeting Member. She chairs of the High School Traffic Working Group and is a member of the Transportation Advisory Committee and the Belmont Safe Routes to Schools group.

Community Path Progress in Belmont and Beyond

By John Dieckmann

Recently, there has been great progress in developing the Community Path in Belmont and the segments of the Mass Central Rail Trail (MCRT) in Waltham, Weston, and Wayland.

Belmont

The Community Path Project Committee selected Nitsch Engineering at their July 15 meeting to be the design contractor for the design of Phases 1A and 1B of the Community Path. Phase 1A is the Community Path extending from Clark Street to Brighton Street. Phase 1B is the pedestrian tunnel under the Fitchburg commuter rail tracks at Alexander Avenue and the short path connecting the tunnel to Concord Avenue.

The contract with Nitsch was approved by the Select Board by August 26, and design work will start shortly. The design process includes public outreach and input; public meetings can

be expected this fall. Fully vetted and permitted design takes approximately 2½ years to develop. That design will be submitted to the Boston Region Metropolitan Planning Organization for federal and state funding via the region's Transportation Improvement Plan, funded by federal and state money, mainly gasoline taxes. The Belmont Community Path is an important link in the Mass Central Rail Trail, so the construction could be funded quickly.

The design work is being paid for by a \$150,000 Department of Conservation and Recreation (DCR) Recreational Trails Grant and \$1.4 million of Belmont Community Preservation Act (CPA) funds. The CPA funds were approved for Phase 1B by the Special Town Meeting in fall 2018 and for Phase 1A by the spring 2019 annual Town Meeting. While the total project budget has not been finalized, it is likely to be less than \$1.55 million. Any unused money will be returned to the Community Preservation Fund.



A view of the new Conant Road Overpass, Mass Central Rail Trail, Weston.

Waltham

Consultants began creating detailed design of the MCRT from Beaver Street to Main Street in Waltham in early 2018. Now, separate bid documents are being prepared for removing the rails and ties from the railroad right of way and for constructing the paved trail.

In addition to paving the path, construction work will include rehabilitating the truss bridge over Linden Street and the trestle bridge that crosses Chester Brook a few hundred yards west of the Linden Street bridge. This work leaves two important segments of the path unfinished at either end; a three-quarter mile segment from Beaver Street in Waltham to the Belmont town line, and a half-mile segment from Main Street in Waltham to the Weston line.

The route of the Main Street to Weston segment is being addressed in part by the Route 128 Crossing/1265 Main Street Traffic Improvement Plan. The project developers expect to present final plans, including one for the Route 128/I-95 crossing, to the Waltham Traffic Commission in the coming months.

Design work on the Beaver Street to Belmont segment is pending the results of environmental permitting studies.

Waltham rail trail advocates including the Waltham Land Trust also have been working with a developer who has proposed a housing development abutting the trail corridor between Lexington Street and Bacon Street. The developer will need to present the housing proposal to Waltham's Zoning Board of Appeals for approval, and advocates are working with the developer to make sure the development is compatible with the rail trail. The developer is pleased to have this important amenity available to the future residents. The developer has pledged funds to support improvements for the trail near the development, and to provide attractive landscaping and short- and long-term bicycle storage.

Weston and Wayland

A five-mile long section of the MCRT in Weston and Wayland (from the Waltham-Weston town line to Russell's Garden Center on Route 20 in Wayland) has been developed in cooperation with Eversource Electric, DCR, and



JOHN DIECKMANN

MCRT construction continues in Wayland.

the two towns. Eversource had already secured a right of way for a high-voltage transmission line and required a roadway along this right of way to enable access for maintenance and repair. They agreed to design and construct the roadway up to the point of a solid gravel and stone dust base and to have the road double as the shared use path. DCR is responsible for funding the paving and construction of a road overpass at Conant Road in Weston. Except for the obstacle of the Conant Road overpass, the path has been completed and open to the public for several months. In late May, Conant Road was closed for three weeks while the overpass was constructed using precast concrete tunnel sections. It was closed intermittently for another three weeks for road paving, sidewalk construction, and other work. With the completion of this overpass, the path is open in its entirety for the aforementioned five-mile section. A significant portion of the path passes through conservation land or other undeveloped land.

Eversource will collaborate with the DCR to extend the trail from Wayland to Sudbury and Hudson within a few years. Eversource and DCR will share the right of way for the rail trail and the electric power transmission line, although the transmission line is underground. The work will add another nine miles to the Mass Central Rail Trail.

John Dieckmann is a director of the Belmont Citizens Forum.

Does Living in Belmont Promote Our Health?

By *Tammy Calise*

Where we live shapes our behaviors and influences our physical and mental health. While everyone deserves to live in a neighborhood that supports healthy lifestyles, it is especially important for youth and older adults—and compared to the state overall, Belmont has a higher percentage of the population under 18 years (21 percent vs. 24 percent) and over 65 years (15 percent vs. 24 percent).

The University of Virginia's Center for Design and Health and Hart Howerton, an interdisciplinary design firm, endorse nine principles that ensure the design of our neighborhoods promote health: smart locations, integrated nature, mixed land use, variety of housing, pedestrian-oriented streets, pride of place, access to healthy food, lifelong learning, and sustainable development. So how is Belmont doing?

1. Smart locations

In communities where residents can meet basic needs without using a car, they live within walking distance of the services they need and use frequently—grocery stores, parks, schools, libraries—and can walk or bike safely. There is also easy access to public transit. Getting around without cars reduces the amount of land needed for roads and parking, helping to preserve land for other uses, including wildlife habitats. Residents in these areas also tend to spend more money locally.

Belmont has three primary centers—Belmont Center, Cushing Square, and Waverley Square—where residents can shop, dine, go to the library or a park, and catch

the commuter rail or a bus to neighboring cities and towns. A bus route connecting these centers could help more people to stay in town, reduce traffic, and encourage exercise via walking to bus stops. Such a bus could also let high school students and visitors get to the school without using a car.

2. Integrated nature

Connected trail networks and green spaces help maintain and cleanse the environment by removing harmful toxins from the air and water. They promote physical activity and mental health.

Belmont has a number of natural resources and green spaces including the Mass Audubon's Habitat Education Center and Wildlife Sanctuary, Beaver Brook State Reservation, and Rock Meadow Conservation Land. Development of the Community Path would connect neighborhoods in Belmont and provide residents a safe, off-road path to walk, bike, stroller, and skate along an ever-expanding trail network.



Integrated nature in Belmont: Turtle Pond, Habitat.

ANNE-MARIE LAMBERT

3. Mixed land use

Combining housing, schools, shops, and places of worship in a compact area provides easy access to services and decreases reliance on cars. Community centers also provide opportunities for neighborhood interactions that create a sense of familiarity and predictability that most people find comforting.

Though Belmont has not officially changed its primary zoning to mixed use, land use is effectively mixed near town centers. Residents of these areas can more easily access the shops, restaurants, and parks compared to other neighborhoods. Maintaining and enhancing the streets, including sidewalks, bike lanes, and bus routes, would enhance Belmont residents' health.

4. Variety of housing

Communities with a mix of housing types (e.g., apartment buildings, small homes, and larger homes) create attainable housing for all community members of all backgrounds and ages. These communities naturally encourage economic and demographic diversity.

The development of the Bradford (formerly known as Cushing Village) will include approximately 38,000 square feet of commercial

space on the ground floor and 115 apartments on the floors above, including 12 affordable housing units. The one- and two-bedroom units may include young professionals who want to live within easy access to Boston and older Belmontians who wish to downsize and live within walking distance to public transportation, shops, and restaurants.

5. Pedestrian-oriented streets

A pedestrian-oriented street is welcoming, safe, and accessible for people in all forms of transportation but especially on foot. Designing the street with pedestrians in mind—improved lighting, continuous well-maintained sidewalks, raised medians, better bus-stop placement, and traffic-calming measures—improves pedestrian, bicyclist, and motorist safety.

The enhancements on Trapelo Road, including medians, sidewalks, have created a more pedestrian-friendly street. Unfortunately, the abutting residential streets continue to enable drivers to speed. Belmont is now ensuring that repaved roads have sidewalks. Additional actions to create pedestrian-friendly streets include installing pinch points, street markings, more trees (which make the street look narrower), and cues to slow drivers (e.g., texture, speed humps, cushions).

6. Pride of place

Communities with a variety of linked gathering places enable residents to be physically active, meet, and mix. They encourage social interaction in parks and appealing shopping areas and allow festivals, fairs, and town days.

Belmont supports social interaction through its many wonderful parks including the recently renovated Pequotsette



Pedestrian-oriented streets: Trapelo Road at the corner of Williston Road in Cushing Square has a center divide, clear bike lane markings, enlarged crosswalk, newly paved and expanded sidewalk, and a covered bus stop.

JOHN DICOCOCO



Access to healthy foods: the Belmont Farmers Market

Park, Joey's Park, and Town Field. In nice weather, these places are ideal for friends and families. All Belmont's parks need adequate trash containers (with regular collections) and accessible portable toilets to support the healthy use of these spaces. There is no pride in park closures due to rat infestations.

7. Access to healthy foods

Encouraging backyard and community gardens, farmers' markets, food co-ops, and grocery stores with a wide range of fresh vegetables and fruits supports healthy diets.

Belmont has a number of sources of healthy food. The Belmont Victory Gardens are one of the largest and oldest active community gardens in the Boston area, covering two acres with 137 plots. The Belmont Farmers Market in Belmont Center matches government benefits to help all families access healthy, local food: SNAP (Food Stamps), WIC (for moms & babies) and FMNP (for seniors), and HIP (a SNAP incentive program). A neighborhood grocery store in Cushing Square would further increase access to healthy foods.

8. Lifelong learning

Communities should help residents share their skills, knowledge, and experience with others.

Schools should be part of an active transportation network so walking and biking are practical options.

Belmont has traditionally supported neighborhood schools. Unfortunately, more and more Belmont students are in schools outside of their neighborhood. They do not walk or bike to school and do not get the health and social benefit of that physical activity.

As much as 20 to 30 percent of morning traffic is generated by parents driving their children to schools. While

busing is a safer way to get to school than in a private vehicle, the average cost for bus transportation across the United States is \$932 per student. In Belmont, the family bears some of this cost. Students in grades 7-12 must pay \$575 per student to take the bus regardless of distance, and any child (K-6) living less than two miles away from the school must also pay the fee.

9. Sustainable development

Low-impact development and green building technologies benefit human health and the environment. In Belmont, Sustainable Belmont's initiatives have included an anti-idling campaign to improve air quality and reduce gas consumption and supporting energy service company projects to improve energy efficiency in town buildings.

A greater dedication to healthy neighborhood principles will help Belmont support residents' physical and mental health.

Tammy Calise, DrPH, is a Belmont resident and mother of two. She is a public health professional with over 21 years of experience at the local, state, and federal levels to create healthier communities.

McLean Barn Gets Scrubbing, Stabilization

By Radha Iyengar

The historic McLean Barn has been vacant and deteriorating for many years—but thanks to Community Preservation Act (CPA) funds approved last May, the barn is finally being cleaned and stabilized. The barn may also get a new electrical line to support exterior lighting and cameras to deter vandals.

Located at 248 Mill Street, the McLean Barn was built around 1915. It was used by the McLean Farm until it was transferred to the town in 2005 as part of the memorandum of agreement with McLean Hospital.

The McLean Barn is a New England-style banked barn that sits on a 4.6-acre site directly south of Rock Meadow, with the gable end facing Mill Street. The Barn's exterior is clad in brick with cast stone sills and lintels. Two cupolas that act as ventilators are located on the roof peak. The interior contains two levels and a hay loft. It was listed on the National Register of Historic

Places as part of the McLean Hospital National Register District in 2003. Previous articles about the McLean Barn can be found in the March and September 2018 issues of the Belmont Citizens Forum *Newsletter*.

The McLean Barn has not had significant maintenance by the town for many years, and increasingly, the barn has fallen victim to graffiti and vandalism. The Land Management Committee for Lone Tree Hill (LMC) manages the McLean Barn and performs routine maintenance on the field adjacent to the Barn. The LMC has had to dispatch the Belmont Police and the employees of the Department of Public Works to secure the building from time to time.

To find a more secure, permanent solution to stabilizing the building, in 2018 a CPA proposal was submitted by the Office of Community Development, Historic District Commission, and the LMC to the Community Preservation Committee. The proposal requested funding



SPENCER, SULLIVAN & VOIGT

The McLean Barn front prior to cleaning and stabilization.

to carry out emergency work to stabilize the building envelope and stop further deterioration by protecting the barn from weather, animals, and vandals.

On May 7, 2018, Belmont Town Meeting voted 181 to 59 to use \$175,000 of CPA funds to secure and stabilize the historic McLean Barn.

This project, managed by the McLean Barn Community Preservation Act Temporary Project Committee, is a first step toward a future plan for the building. It ensures that the barn is adequately preserved and protected while the planning process is underway.

Below is a summary of the activities since the CPA funds were authorized for the McLean Barn stabilization project:

- June–September 2018: McLean Barn Community Preservation Act Temporary Project Committee (“the committee”) and town staff

work to draft a request for proposal (RFP) to procure architectural services.

- September 19, 2018: RFP for architectural services is released.
- October 25, 2018: Committee votes unanimously to award the contract for architectural services to Spencer, Sullivan and Vogt (SSV) (other firms who submitted proposals were Russo Barr, and CSS Architects).
- December 7, 2018: Kickoff meeting held between committee, town staff, and SSV.
- December 2018–March 2019: Committee, town staff, and SSV work to draft bid documents and specifications in order to procure a contractor to execute the stabilization work.
- April 3, 2019: Invitation to bid is released.
- May 13, 2019: Committee and Select Board (in separate meetings) vote to award the contract to Calhess Waterproofing (other bidders



SPENCER, SULLIVAN & VOIGT

The McLean Barn front after cleaning and stabilization.



The cleaned and stabilized McLean barn, left side.

were Ace Restoration, Eagle Point Builders Inc., and Kronenberger & Sons Restoration).

- June 25, 2019: On-site kickoff meeting for stabilization work is held.
- August 14, 2019: Committee meets with SSV for mid-construction project update meeting.

Below is a summary of the restoration work by Calhess Waterproofing as of August 14, 2019:

Completed Construction

- Masonry: graffiti removal, cleaning, and fieldstone repointing
- Structural: rusted steel lintel removal
- Carpentry: gutter removal, fascia installation, and epoxy consolidation; window and door infills
- Roofing: slate removal and sheathing exposure

Tasks in Progress

Estimated completion date: September 2019

- Masonry: water table head joint repointing, brick infill and replacement, anti-graffiti coating
- Structural: east lintel steel replacement, purlin replacement steel plate
- Roofing: purlin replacement and board sheathing replacement

- Site: stump removal and soil regrading

The LMC will be working with the town and Belmont Light to install exterior lighting and security cameras. In addition, an electrical line will be installed in the building.

The future of the building is restricted by the memorandum of agreement to a limited number of uses:

- Environmental education
- Storage of materials and equipment associated with management of Lone Tree Hill or the nearby Highland Cemetery
- Office space for the staff of the cemetery and/or “the Premises”, the legal term used to describe the McLean Barn.

LMC has engaged a facilitator to conduct a community forum to identify possible uses for the building. Stay tuned for the details of this upcoming community forum in the fall. Thanks to Spencer Gober, Staff Planner, Town of Belmont, for providing a timeline of McLean Barn CPA Project Committee activities for this article.

Radha Iyengar is a director of the Belmont Citizens Forum and a member of the Land Management Committee.

Invasive Plants Harm Belmont's Environment

By Roger Colton

Belmont is under invasion. By air, land, and water, the town is experiencing the influx of non-native plants which outcompete our native species, threatening our wildlife and our waterways. The sooner that town residents begin to respond, the sooner the invasion can be thwarted.

One of the most noticeable and harmful invasive plants in Belmont is Japanese knotweed, which is growing along waterways including the Wellington Brook. Japanese knotweed threatens to displace the existing trees, shrubs, and other native plants that line the waterway. Unlike those other species, knotweed does not effectively prevent erosion or filter pollutants from runoff. As a result, large storms become an ever-greater threat to waterways as they fill with sediment and the banks are eroded away. You can see erosion by the small bridge on the Wellington Brook between the library and the Underwood estate. Knotweed also commonly grows along public right of ways. Belmont has large (and growing) stands of Japanese knotweed

along Old Concord Road, and the knotweed behind the library effectively blocks any use of the Wellington Brook there.

Belmont's invasive plants often come in attractive packages. In addition to Japanese knotweed, common invasive plants in Belmont include black swallowwort, Oriental or Asiatic bittersweet, and garlic mustard. These plants occupy both undeveloped open spaces and residential lawns and backyards. Indeed, some invasives are seen as "pretty" by homeowners who do not recognize the ecological harm they cause.

Those organizations that have an institutional role in the oversight of public lands, such as the Belmont Conservation Commission, which oversees Rock Meadow, and the Land Management Committee, which oversees Lone Tree Hill, work to control invasive plants. Unfortunately, the Department of Public Works, which oversees the town's right-of-way corridors, has not been given the resources or the directive to control invasives. As part of routine maintenance, invasives are instead simply mowed,



MEG MUCKENHOUP

A verdant stand of Japanese knotweed crowds out all other plants along Wellington Brook behind the Belmont Library.



Invasive Asiatic bittersweet creeps from one Belmont yard to another.

which causes these plants to resprout, worsening the problem. Finally, most private property owners, including Belmont homeowners, do not have the invasives even on their mental list of yard problems.

As a result, homeowners frequently do what many consider to be the worst type of control efforts. For example, pulling invasives as “weeds,” and disposing of them with yard waste simply spreads the plants to new areas. Instead, invasives removed from a private yard should be placed in a black garbage bag and disposed of in the garbage so they will be incinerated.

Eradication of invasives is likely not possible. Invasives are simply too dispersed and too ubiquitous to eliminate completely. A strategy of containment accepts current levels of invasives

but seeks to prevent invasives from spreading to new sites. Another management strategy involves reducing the density or abundance of non-native species. This approach allows invasive species to persist, but at pre-defined lower thresholds. Most planners believe that invasive plant management efforts should include restoring native plants.

Eliminating substantial stands of invasives, such as the Japanese knotweed behind the Belmont Public Library on Concord Avenue, is possible, and containment of invasives in Belmont should be a near-term goal. A meaningful education program for homeowners on how to identify and dispose of common invasives would promote containment and benefit the community.

Roger Colton is co-chair of the Belmont Energy Committee. He writes the biweekly “Community Conversations” column for the Belmont Citizen Herald, produces a biweekly podcast of the same name for the Belmont Media Center, and is co-host of the BMC news program Belmont Journal.

Switch to digital delivery

Consider receiving the *Belmont Citizens Forum Newsletter* via email. You’ll be able to read the newsletter in full color, help us reduce our printing and mailing costs (among our biggest expenses), and also help save a few more trees.

Remember, you can always find printed copies at the Belmont Public Library and at the Beech Street Center. And if you are looking for previously published issues, you’ll find them on our website, going back to 2000, at belmontcitizensforum.org.

To request electronic delivery only, email us at bcfprogramdirector@gmail.com. Please use “Electronic” in the subject line. And thanks to everyone who has gone digital so far!

Ground Source Heat Pumps Make Heating Easy

By James Booth

One of the best options for home heating that doesn't burn oil or natural gas is a heat pump. Heat pumps reduce the amount of energy you need to heat or cool indoor air. If you use fossil fuels to heat, a heat pump will let you use less fuel, which means fewer climate-changing greenhouse gases and less local and indoor air pollution.

Heat pumps work by using electricity to move heat between the inside and outside of a house, allowing efficient heating or cooling. There are two ways to do this: air-source heat pumps and ground source heat pumps (GSHPs).

Air-source heat pumps move heat between a building and the outside air. They are the focus of the current HeatSmart Belmont community campaign, described in the July/August 2019 *Belmont Citizens Forum Newsletter*.

GSHPs exchange heat with the ground through a fluid moving through underground pipes. GSHPs cost more to install than air source heat pumps due to the need to excavate and install pipes. However, Ground-source heat pumps are more efficient in that they use less electricity to deliver the same amount of heating (compared to electric resistance heating or air source heat pumps). The temperature 10 feet or more underground stays quite constant all year, about 55° Fahrenheit. This constant temperature makes it easier to extract heat in the winter, when the ground is warmer than the air above, and to cool air in the summer, when the ground is cooler than the air above. While air-source heat pump systems are

2-3 times more efficient than traditional electric baseboard heaters, GSHPs can be more than five times more efficient. Also, since the pipes of GSHPs are buried and thus protected from the elements, they are very long lasting, with lifetimes of many decades.

These GSHPs go by a variety of names, including ground-source heat pumps, geo-exchange, and geothermal. Confusingly, the word "geothermal" is also used to refer to direct use geothermal, an entirely different situation where the ground is very hot near the surface, such as the hot springs in Iceland or Yellowstone

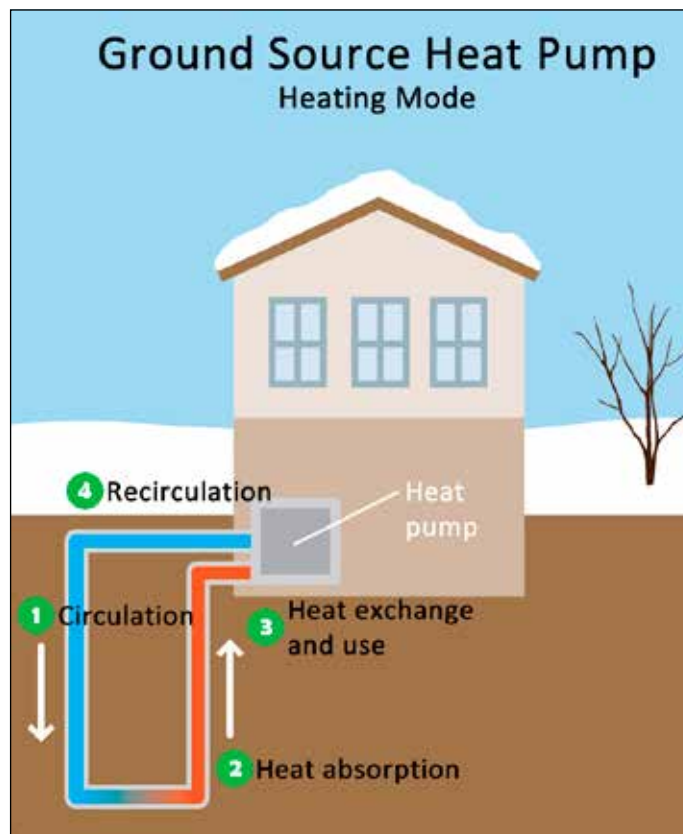
National Park. In our region, when people say "geothermal," they are referring to heat exchange using the relatively constant temperature of the ground.

Several institutional buildings in Belmont have installed or will be installing ground-source heat pump systems, including the Beech Street Center and the Belmont 7-to-12 school that is currently under construction. Cambridge Savings Bank, as part of its longstanding support of green initiatives, installed a GSHP in its

block-long building on Leonard Street.

Some homeowners in Belmont have also adopted ground-source heat pumps. Alan Savor installed a GSHP at his property back in 2012, replacing an aging oil-based system with an environmentally friendly alternative.

Savor's GSHP system is a closed-loop system: an antifreeze solution circulates through underground pipes that descend 350 feet. (Deep pipes reduce the amount of land required compared





Drilling for a ground source heat pump at Katherine Oates' house, Belmont.

to horizontal layouts.) As the antifreeze solution passes along those pipes, heat is exchanged with the earth around it.

The system is versatile. Savenor has three different heat exchangers inside the house to deliver warm air, radiant floor heating, and hot water. The system provides him with even heating that is delivered to multiple zones. He has seen large savings on his heating bills, and the system has required minimal maintenance over the years aside from occasional air filter replacements.

Belmont resident Katherine Oates is currently installing a GSHP for heating, cooling, and hot water. She considered switching from oil to gas heat, but she was motivated to consider ground-source heat pumps as the most efficient heating solution. The current federal tax credit for GSHPs, currently 30% through 2019, is dropping to 26% in 2020 and 22% in 2021, brought down the cost of the project. With the GSHP, she expects to also take advantage of Alternative Energy Credits available from the state, which are also available for solar and wind projects. In addition to its operating efficiency, the system

will operate almost silently. Oates hopes to install solar panels in the future, which would help power the GSHP system with energy that is both low-cost and carbon-free.

As a highly efficient heating and cooling solution, ground source heat pumps are helping Belmont residents stay comfortable year-round while also greatly reducing emissions of the heat-trapping greenhouse gases that drive climate change. For more information about GSHPs and rebates, visit Massachusetts Clean Energy Center bit.ly/2NoeCd2.

James Booth is a member of the Belmont Energy Committee, a co-author of its Climate Action Roadmap, and a HeatSmart Belmont coach.



Belmont Roots

Environmental News, Notes, and Events

By Meg Muckenhoupt



Now comes the fall. Summer vacation is over, and it's time to get back to work. If that thought does not fill you with glee, perhaps it's time to consider a new career that will help

preserve, protect, and promote our planet at the Massachusetts Green Careers Conference. If a wholesale career change isn't in your future, you can still take some time to consider how to help people interact with the natural world in a way that helps both nature and humans—by building trails, using space wisely, or simply taking a mindful walk in the woods.

11th Massachusetts Green Careers Conference

Friday, September 20

MA Division of Fisheries & Wildlife, 1 Rabbit Hill Road, Westborough

Connect with stakeholders from government, non-profits, business, education, green-career-ready candidates, and students, all in one place. Learn about current employment trends, best practices, opportunities, and take home ideas, connections, resources. Registration fee is \$60 and includes breakfast, lunch, speaker sessions, plenary, coaching, networking. Register at www.MassGreenCareers.org or contact JenBoudrie@gmail.com, 508-481-0569.

2019 MassTrails Conference

Thursday, October 31–Saturday, November 2

Doubletree by Hilton, 99 Erdman Way, Leominster
The 2019 MassTrails Conference theme is "Trails As Connections." This conference features workshops, field trips, and speakers on topics ranging from trail building to volunteer management to tourism. The MassTrails Conference is hosted by the Massachu-

setts Department of Conservation and Recreation in partnership with the Massachusetts Recreational Trails Advisory Board with funding provided by the Recreational Trails Program. To register, visit www.masstrailsconference.com or call 413-387-4333.



IRENE FAIRLEY

Irene Fairley's late summer garden.

Go West

Belmont hosts a portion of the Western Greenway, a set of connected trails spanning 1,200 acres of open space in Waltham, Lexington, and Belmont bounded roughly by Concord Avenue, Lexington Street in Waltham, and the nascent Mass Central Rail Trail to the south. For a Town of Homes, Belmont contains an astonishing amount of forest, flower-spangled meadows, wetlands, old stone walls, and vernal pools. If you'd prefer a solitary walk, you can find maps under Habitat Sanctuary information on www.massaudubon.org. If you'd prefer a guide, or a few hundred friends to come with you, you can choose whether to run, walk, or trek through our suburban wilderness this October.

Western Greenway Walk

Saturday, October 26, 8 AM–noon

Mass Audubon Habitat Education Center and Wildlife Sanctuary, 10 Juniper Road, Belmont

Join Roger Wrubel, Habitat director, on a 6.5 mile trek along the Western Greenway Trail, through Belmont, Lexington, and Waltham, ending at the Robert Treat Paine Estate in Waltham. Return transportation will be provided to Habitat. Bring water and a snack. \$20 Mass Audubon members, \$25 nonmembers. To register, see www.massaudubon.org or call 617-489-5050.

Western Greenway 5K Run/Walk 2019

Sunday, October 27, Noon–2 PM

The McLaughlin Building, Metropolitan Parkway, Waltham

The Waltham Land Trust's annual 5K helps the community stay fit, enjoy the Western Greenway, and raise money to protect open space for everyone to enjoy. Registration is \$25. Register at walthamlandtrust.org, 781-893-3355, info@walthamlandtrust.org.

If the Western Greenway events aren't coming soon enough, you can warm up by "plogging" in Waltham to pick up trash, or walking through trees in Winchester. The Winchester event is "forest bathing," an approach to spending time in nature that does not involve any strenuous exercise or concentration, but simply walking and existing. You can't quite become one with the trees, but you can stop thinking about them, and just breathe with them instead.

If you would rather spend time talking with humans about the trees you're enjoying, you can also visit Mount Auburn Cemetery to observe how humans are good stewards to an urban arboretum. Exercise enthusiasts should consider the ACROSS Lexington hike, which covers four miles, exploring the entire Cambridge watershed by bike, or raising funds for the Waltham Fields community farm. Alternately, you could eschew bipedal transportation altogether to float along an urban river in the balmy early fall.



IAIN TODREAS

Forest Bathing

Tuesday, September 24, 8–10 AM

Wright-Locke Farm, 78 Ridge Street, Winchester

Join Winchester's Wright-Locke Farm for a Japanese nature therapy called *Shinrin-yoku*, which translates to "forest bathing." Immerse yourself in the sights, sounds and atmosphere of natural environments by slow walking. Studies have proven the health benefits of guided slow walks where we take time to reconnect with the natural world and forget about the stress of a modern, high-tech life. This walk is not a hike or naturalist tour. It is an opportunity to strengthen your friendship with nature. Led by Lisa S. Mediano, certified forest therapy guide, the walk costs \$25. Register at wlfarm.org.

"Plogging" Cleanup along the Charles

Saturday, September 28, 10AM–noon

Cafe on the Common, 677 Main Street, Waltham

Join the Waltham Land Trust for a trash pick up along the Charles River, in coordination with the Waltham Trail Runners, where we will take a crack at "plogging," the Swedish fitness craze combining jogging and picking up litter. You can go at your own pace and cover up to two miles. Gloves and bags provided. Please dress to be outside and bring

water if you need it. The event will last one to two hours depending on how much trash there is. Register at walthamlandtrust.org, 781-893-3355, info@walthamlandtrust.org.

Cruise in a Canoe with Friends of the Malden River
Saturday, September 28, 10 AM–2 PM

High School Boat Tent, 365 Commercial Street, Malden

Get out on the water with Friends of the Malden River and Paddle Boston! No canoe experience is required and event is free. Children under 18 may participate with an accompanying parent or guardian. Sponsored by Paddle Boston and the Massachusetts Environmental Trust. Register at friendsofthemaldenriver@gmail.com, or mysticriver.org.



ANDREW JOSLIN

Deer photographed near Acorn Park Drive.

Thank you to our contributors

WRITERS

Jessie Bennett • Tammy Calise • Roger Colton • John Dieckmann • Radha iyengar

PHOTOS/GRAPHICS

BSC Group • Belmont Farmers Market • John Dieckmann • John DiCocco • Irene Fairley • Andrew Joslin • Kentucky office of Energy Policy • Evanthia Malliris • Sara McCabe • Meg Muckenhoupt • Ann Sifneos • Spencer, Sullivan & Voigt

COPY EDITORS

Sue Bass • Virginia Jordan • Evanthia Malliris

NEWSLETTER COMMITTEE

Sue Bass • Virginia Jordan • Evanthia Malliris • Vincent Stanton, Jr.

MAILING MAESTRO

Ken Stalberg

Cycle to the Source

Saturday, September 28, 8:30 AM–4 PM

Cambridge Water Treatment Plant, 250 Fresh Pond Parkway, Cambridge

Cycle to the Source is a 33-mile bike tour of the Cambridge Watershed. It is a chance to explore where Cambridge’s water comes from, how it is collected, and what steps are taken to ensure the city has clean drinking water. Led by Cambridge Water Department staff and guides from Urban Adventours, this free event is open to all adults over 18. It will include stops at the upper reservoirs, dams, gatehouses, and the CWD field office. The ride explores the Cambridge watershed, which includes the lands and reservoirs in Lincoln, Lexington, Weston, and Waltham. Bike rentals are available for \$65. Register at www.tinyurl.com/cycletotheshource or with aoconnell@Cambridgema.gov. Rain date is September 29.

Ride for Food

Sunday, October 6, 8 AM-3 PM

Rides begin and end at Noble & Greenough School, Dedham

Waltham Fields believes that everyone should have

access to local, organic food. All of the proceeds from the Ride For Food will help Waltham Field's many food access and assistance programs. Choose from a 10-, 25-, or 50-mile ride along beautiful roads made for bike riding. Riders aged 14+ are welcome. Registration is \$75 and goes toward Ride expenses; riders are expected to raise funds for the farm as well. To register, contact communityfarms.org.

Mount Auburn Fall Tree Walk
Saturday, October 19, 10 AM–noon

Mount Auburn Cemetery, 580 Mount Auburn Street, Cambridge

As the trees prepare for winter, join Mass Audubon to for a leisurely walk through Mount Auburn Cemetery. Enjoy the wide array of trees and plantings and discuss the history of the area and the different natural communities that are special to Mount Auburn. \$16 Mass Audubon members, \$20 nonmembers. To register, see www.massaudubon.org or call 617-489-5050.

ACROSS Lexington Route L Walk
Sunday, October 20, 1–4 PM

Bowman School, 9 Philip Road, Lexington

Explore Route L, the newest addition to the ACROSS Lexington system, with Citizens for Lexington Conservation. This route connects the Lexington Conservation properties of Dunback Meadow, Cotton Farm, Upper Vine Brook, and Daisy Wilson Meadow along with Tower Park along its 4+ mile route. Heavy rain cancels. For more information, contact Keith Ohmart kohmart@verizon.net, or see www.clclex.org.



ANN SIENEOS

Thank you for your continued support.

Your contribution makes a difference!

Each *BCF Newsletter* issue costs about \$4,000 to publish. **Thank you for your support!**

\$50 \$100 \$150 \$250

Name _____

Address _____

Phone _____

Email _____

- Check here if your employer has a matching gift program.
- Check here if you would like to learn more about volunteering.

Make checks payable to Belmont Citizens Forum and mail to:
 PO Box 609, Belmont, MA 02478

Or give securely online:
belmontcitizensforum.org

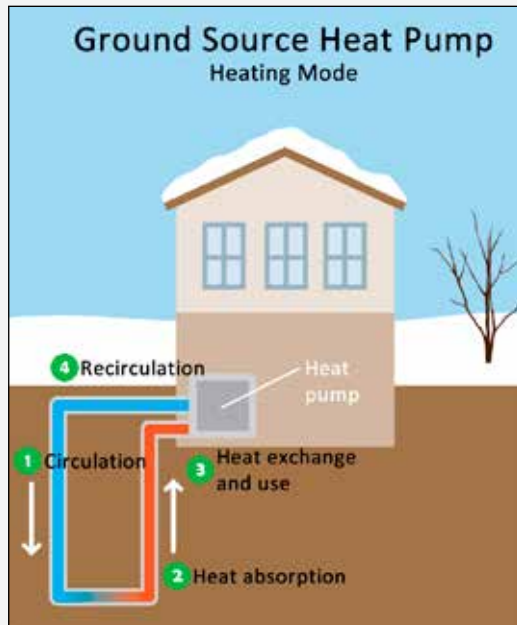
Contact us:
info@belmontcitizensforum.org

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.

Belmont Citizens Forum
P.O. Box 609
Belmont MA 02478
Address Service Requested

Nonprofit Org.
US Postage PAID
Boston MA
Permit No. 56393

September/October 2019



How to Fix Belmont Traffic.....	1
Community Path Progresses	4
Does Belmont Promote Health?	6
McLean Barn Gets Cleaned	9
Invasive Plants Harm Environment.....	12
Heat Pumps Make Heating Easy	14
Belmont Roots	16

Please visit our website for updates and to read this issue in color: belmontcitizensforum.org.