



Belmont Citizens Forum

Forum Celebrates 10 Years' Work for Belmont

By Jim Graves

Ten years is a long time for a volunteer organization to survive, especially one that focuses on a single suburban town's issues and has not shied away from controversy.

First, some background. In the spring and summer of 1999, a group of citizens petitioned to force a town-wide vote that came close to overturning Belmont's agreement to permit large-scale development on McLean Hospital land. Just after the McLean vote, the *Belmont Citizen-Herald* reported that the Middlesex District Attorney had ruled that the closed-door meetings between the town's McLean committee and McLean's representatives had violated the state's open meeting laws.

Deep concerns over both the environmental impacts of the McLean deal and a process that had shut out citizen input were driving forces in the formation of the Belmont Citizens Forum at the end of 1999. In the months after the vote, a group of citizens—some who had been involved in the referendum campaign and some who had not—met to discuss how to prevent such a thing from happening again.

The result was the Citizens Forum's mission to maintain Belmont's small-town atmosphere by preserving its natural and historical resources, limiting traffic growth, and improving pedestrian safety. Right from its founding, the Citizens Forum took on a wide variety of environmental and planning issues, not just those relating to the McLean development.

This *Newsletter* has been one of the organization's major contributions. Ten years ago, Belmont's town government published less information on its activities and plans than it provides today. While the *Belmont Citizen-Herald* provides an important service by describing the past week's events, it less often digs beneath

the surface. The Citizens Forum's *Newsletter* has filled a void by providing insight on many critical issues. An astonishing 78 writers, primarily Belmont residents, have contributed articles.

The organization's activities have only been possible because of supporters' financial donations. Many donors have contributed year after year since the very start. The Citizens Forum and our fellow citizens owe a great deal to supporters.

Here is a numerical summary of the first 10 years:

- 838 households have made a donation to the Citizens Forum.
- 78 individuals have written an article for the newsletter.
- Hundreds of meetings of town organizations have been attended by Citizens Forum volunteers to observe or provide input.
- 19 individuals have served on Citizens Forum's board of directors.
- Tenure of the three longest-serving members of the Citizens Forum's board: Sue Bass, more than 10 years; Mark D'Andrea and John Dieckmann, more than 9 years.
- Two editors of the newsletter: Sharon Vanderslice, 1999 to 2003; Meg Muckenhout, 2004 to the present.
- About 250 pen and ink illustrations contributed to the newsletter by Ann Coit Sifneos.

The Citizens Forum has reached many milestones over the past ten years.

1999

- Formal filing as a nonprofit 501 (c)(3) corporation in September.
- The founding board members are Sue Bass,

Nelson Bolen, Rosemary Chase, Jim Graves, Lynne Polcari, Peter Rand, and Ann Coit Sifneos. The board votes financial support to 11 Belmont citizens who intervene in McLean's suit to pre-empt possible challenges to its development.

2000

- Belmont The Citizens Forum *Newsletter*, Volume 1, Number 1, is published in January.
- At the first Citizens Forum public forum, the agenda includes town-wide traffic, zoning, and planning improvements for Belmont Center.
- The board recruits volunteers for sub-committees including storm water/flooding, environment, traffic/pedestrian safety, historic

preservation, and planning/zoning.

- The Citizens Forum sponsors a regional Traffic Alert public forum with representatives from Arlington, Cambridge, Belmont, and the state's Central Transportation Planning Staff.

2001

- Selectman candidates Will Brownsberger and Nancy Kelley answer 10 Citizens Forum questions on planning, zoning, historic preservation, and open government. The newsletter publishes their responses, a tradition that continues prior to local elections.
- The Citizens Forum hires a hydrologist to study Junction Brook and to present his findings to the Conservation Commission to gain protections from a McLean development.
- The Citizens Forum publishes findings by architects who volunteer to make the case for preserving the 1898 Homer Town Annex—a key step in saving it from destruction.

2002

- The Citizens Forum and the Mystic River Watershed Association co-sponsor a Flood Alert forum with presentations by local officials. More than 100 attend, mainly from Arlington, Cambridge, and Belmont.
- The Citizens Forum donates funds for the town to build five demonstration international-style crosswalks made with highly visible, wide, and durable white epoxy stripes.
- With the funding support of 80 Belmont families, the Citizens Forum votes to appeal to the state Department of Environmental Protection to protect Junction Brook.

2003

- The Citizens Forum recruits Boston Architectural Center students to take on the Trapelo Road corridor as a project. Their designs are displayed at a Cushing Square Gallery.
- The Citizens Forum invites regional planning experts and town officials to speak at a public forum, Redefining Trapelo Road, which includes a slide-based virtual tour.
- The Citizens Forum co-sponsors a public forum, The Belmont Uplands: Wildlife,

Belmont Citizens Forum

Officers

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 John Dieckmann, Vice President
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Sue Bass Sumner Brown
 David Chase Anne-Marie Lambert

Newsletter

Meg Muckenhoupt, Editor, Production

Belmont Citizens Forum Inc. is a not-for-profit organization that strives to maintain the small-town atmosphere of Belmont, Massachusetts, by preserving its natural and historical resources, limiting traffic growth, and enhancing pedestrian safety. We do this by keeping residents informed about planning and zoning issues, by participating actively in public hearings, and by organizing forums. Our *Newsletter* is published six times a year, in January, March, May, July, September, and November. Published material represents the views of the authors and not necessarily those of the Belmont Citizens Forum. Letters to the editor may be sent to P. O. Box 609, Belmont MA 02478 or to info@belmontcitizensforum.org.

Wetlands, Forests, and Development, with five experts in forests, ecology and conservation

2004

- Northland Residential Corp., developer of the Woodlands at Belmont Hill, town houses on land that was formerly part of the McLean campus, pays \$300,000 to the Citizens Forum to settle a suit concerning overloading of Belmont's sewers.
- The Citizens Forum recruits a class of 20 MIT graduate students and funds their study of the Trapelo Road/Belmont Street corridor. They present zoning, design, development, and funding options in two public forums.

2005

- The Citizens Forum submits comment letters on three development proposals: Discovery Park near Alewife, Avalon Bay (387 apartments on former Metropolitan State Hospital land,) and Cambridge's dramatic rezoning plan to increase density in the Concord Avenue/Alewife area, just a few examples of a long tradition of filing technical comments on development in the area.
- The Citizens Forum and Mass Audubon sponsor *Floods, Drought, and the War Over Water*, a presentation by Kathy Baskin, the state's Director of Water Policy.

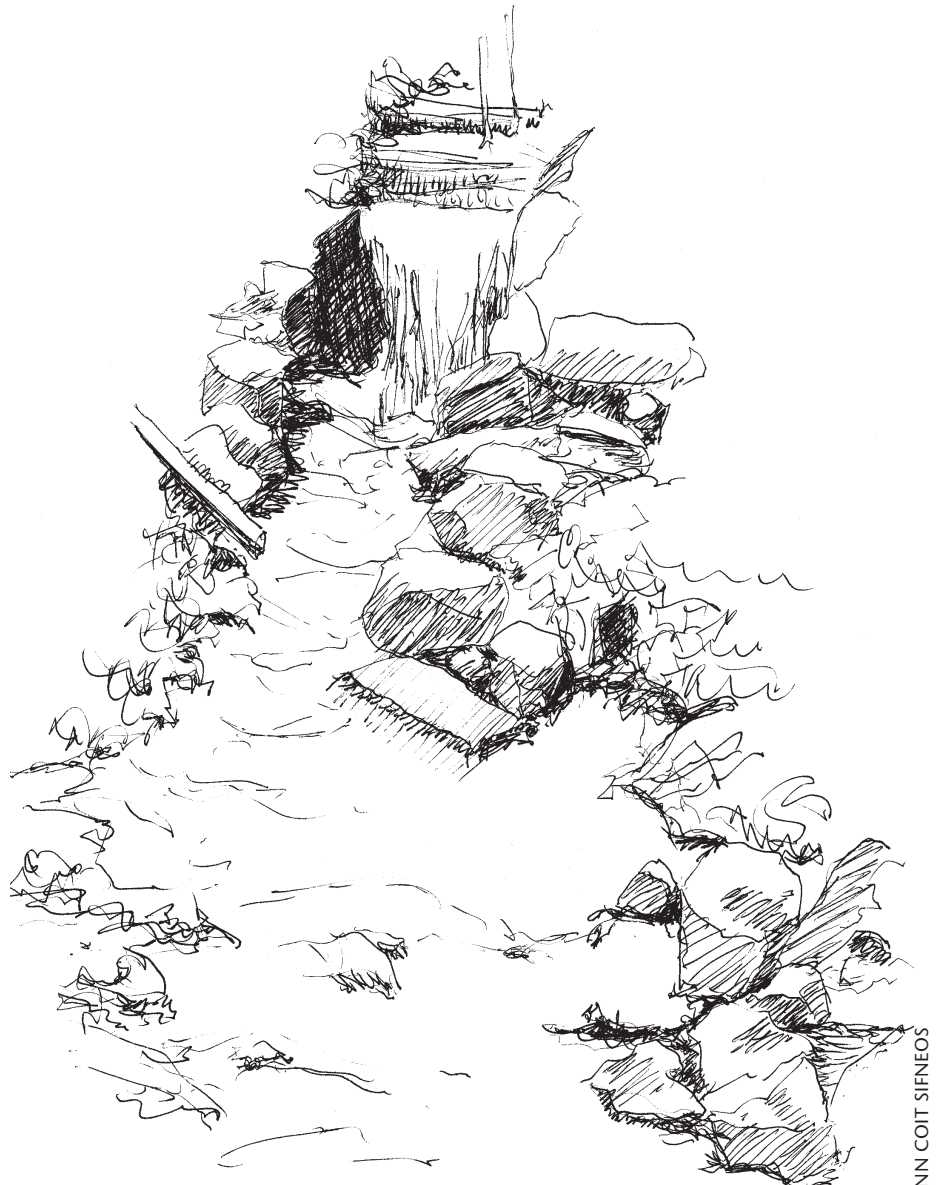
2006

- The Citizens Forum sponsors a public forum, *What is Smart Growth?*, with Belmont's new planner, Jay Szklut, and Karl Haglund, Chairman of the Belmont Planning Board.
- The Citizens Forum and 12 Belmont residents challenge the state's sewer permit for the next

phase of the large-scale developments at McLean, charging that DEP's lax review ignores clear evidence of multiple sewer overflows in Winn Brook.

2007

- Anne Paulsen moderates a Citizens Forum traffic forum featuring state and regional experts.
- The *Newsletter* describes efforts by Oakley Neighborhood Association to influence development on the Our Lady of Mercy property, which is up for sale by the Boston archdiocese.
- Metal markers are placed on the first trails of the Western Greenway, as the battle continues to



Junction Brook

ANN COIT SIFNEOS

protect open space, including surplus state land, from development.

2008

- The Citizens Forum purchases 2.4 acres of land for a bike and pedestrian rail-trail from Brighton Street to Belmont Center, with a connection to soon-to-be improved trail to Alewife.
- The *Newsletter* summarizes the Belmont Conservation Commission's rejection of the latest large-scale construction plans for the Uplands site along Little River.
- The *Newsletter* describes and solicits donations for a project, supported by eight organizations and the Selectmen, to clean and repair the Belmont Center railroad bridge.

2009

- The Citizens Forum donates funds for one of 22 informational panels on the new Waverley Trail.
- Brookdale Senior Living abandons a project to build more than 400 senior and assisted living residences on the former McLean campus.
- The *Newsletter* reports on Sustainable Belmont's Climate Action Plan and promotes meetings for the presentation and public discussion of the plan.

Jim Graves was a founder of the Citizens Forum and its second president.

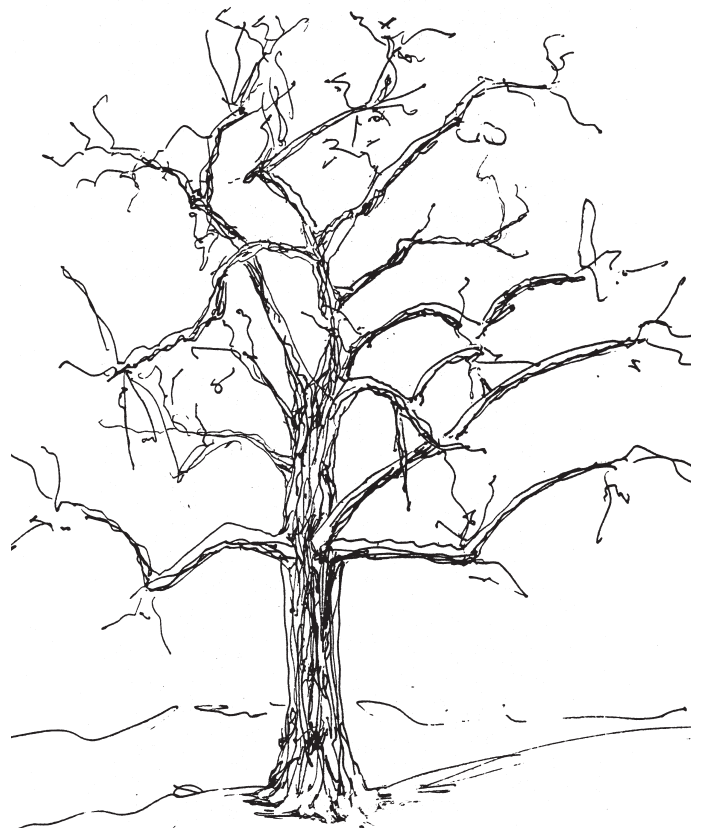
Farewell, Copy Editors Past

Over the past five years, two volunteer copy editors have helped rid this newsletter of grammatical errors, factual misstatements, and typographic misery: Gillian Webster and Heather Tuttle.

Gillian vetted countless articles with patience and aplomb. She created this *Newsletter's* first style manual, summarizing consistent, reasonable guidelines for all manner of spelling, capitalization, and symbolic difficulties. Gillian's devotion to improving text while preserving the author's voice is unparalleled.

Heather began copy editing the newsletter far more recently than Gillian but has shown similar patience and editing acumen.

Unfortunately, both Gillian and Heather moved out of Belmont last summer, and will be devoting their energies to copy editing in Brookline and Watertown respectively. They will be missed.



APPLE

Historic Town Buildings Risk Demolition

Without legal protection, history can be torn down

By Meg Muckenhoupt

Belmont is blessed with many intriguing historic buildings. The town has at least 10 surviving homes built before 1800, Queen Anne and Gothic Revival homes from the 19th century, 19th and 20th-century municipal buildings, the Underwood Pool, modern homes designed by Carl Koch – the list goes on and on. Almost all of them could be torn down by right according to a draft report written by the Historic Preservation Joint Committee working on Belmont's Comprehensive Plan.

Belmont's current Comprehensive Plan work was kicked off in a September meeting by consultants Larry Koff & Associates. The Plan is, in the consultants' words, "a coordinated vision based on community consensus with policies to guide private investment, public facilities, infrastructure, land use, and zoning." Belmont's prior Comprehensive Plan was written in 1963; the town is long overdue for an update. The Historic Preservation Joint Committee is just one of six committees working on the plan. The other five are transportation and energy, public facilities and finance, open space and greenbelt connections, housing, and commercial development

Historic Buildings Suffer Many Abuses

Homeowners who wish to remodel buildings in the Pleasant Street Historic District or the Common Street Historic District must apply to Belmont's Historic District Commission to get legal permission for the work. Outside those districts, though, homeowners can do what they want with their buildings, even if they remodel with a wrecking ball.

Any building on a large lot is in danger of being torn down so that a new, larger building can be put in its place—or two more buildings, if the lot can be subdivided. Although tear-downs are most dramatic, historic buildings can also be destroyed gradually. Neglect can make it difficult to restore buildings or to bring them up to current safety codes. Owners can strip or

cover features such as architectural molding or clapboards and make the building unsightly.

Belmont "has made admirable progress in preserving its historic buildings," according to

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the report. It continues, "The Town Complex including the Homer Building, the School Administration Building and the Town Hall has been rehabilitated to create one of the most beautiful historic municipal centers in the region. The Waverley Fire Station and the Central Fire Station were provided with preservation restrictions enabling them to be adaptively reused as successful private developments; they are now crown jewels in Waverley Square and Belmont Center, respectively." The report also praises the town's "barn bylaw" zoning amendment that allows historic barns, greenhouses, and other accessory buildings to be converted to other uses.

Historic Buildings Keep Disappearing

Unfortunately, most historic structures in town have no protection – including buildings on the National Register of Historic Places. Being listed on the National Register has many

benefits for homeowners, such as allowing access to certain grants and tax credits for historic preservation, but it doesn't put any restrictions on the property. Owners can tear down homes on the National Register whenever they wish. Moreover, owners voluntarily apply to have their properties listed on the National Register. If you don't apply, your house never gets listed, even if it dates to 1640.

Only five Belmont sites are on the National Register. The town has dozens more historic buildings, but they are disappearing one by one. The Belmont Historical Society has started keeping a photographic record of historic houses slated for demolition on its web site, www.belmonthistoricalsociety.org. Last summer, the Our Lady of Mercy Rectory and Church were torn down by the Archdiocese to make space for townhouses.

In 2007, the Belmont Hill School tore down a 1934 International Style Home by architect Eleanor Raymond at 12 Park Avenue to make way for offices. That home was one of the first examples of Modern architecture in New England. [For more information about Raymond, see "Historic Modern Homes are Hidden in Belmont," Belmont Citizens Forum Newsletter

May 2005, and "Local Modern Homes are Historic, Adaptable," Belmont Citizens Forum Newsletter September 2006.]

Town Policies Can Protect Local History

To protect Belmont's historic buildings, the Joint Committee recommends four strategies to accompany Belmont's new Comprehensive Plan:

- Educate property owners and the general public about historic properties, the benefits of preservation, and preservation tools including preservation restrictions, land trusts, etc.
- Change zoning to discourage subdivision of historic sites
- Create historic "districts" where renovation plans are subject to review, like the Pleasant Street Historic District. These "districts" may consist of a single building; Somerville has 260 "districts".
- Establish a demolition review by-law.

With careful planning, perhaps more historic property owners will see the advantage of caring for Belmont's past.

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



BELMONT HISTORICAL SOCIETY

The Underwood Pool around 1914

Selected Historic Buildings from the Task Force's Report

Belmont's historic buildings fall roughly into categories: public buildings, commercial buildings, 17th and 18th century residences, 19th century residences, early 20th century residences, and modern homes. Below is a selection of historic buildings featured in the Belmont Comprehensive Plan Historic Preservation Joint Committee's draft report.

Public Buildings

Police Station This 1930 Georgian Revival building designed by H. Thaxter Underwood was designed to resemble a colonial residence. Town studies have recommended moving police operations to a different building and have suggested demolishing the building for development

Municipal Light Building This 1925 Georgian Revival substation designed by Francis Galaher with 1934 offices designed by George Robinson has a graceful façade. As with the police station, recent studies have suggested demolishing the building for development.

Underwood Pool and Bath House The pool was built in 1912 and designed by Loring Underwood, landscape architect, and H. Thaxter Underwood, architect. The nation's first public outdoor pool, it was originally built as a pond fed by an underground spring. Recent studies indicate that the current concrete pool is facing imminent failure and the bath house is in need of repairs.

Commercial Buildings

The former SS Pierce Building This Colonial Revival structure at 489-493 Common Street/102-104 Trapelo Road was built about 1913 and features wood shingle and brick and a gambrel gabled form. Part of the Cushing Square Overlay Zoning District, this building is likely to be torn down. Preserving it is not included in any of proposed development plans.

The Winters Block Built about 1925-1929, this Tudor Revival structure at 72-86 Trapelo Road features a stucco/half timber exterior. It adjoins underutilized commercial properties and could be demolished as part of a larger development plan.

17th- and 18th-Century Residences

Common Street: Thomas Clark House This outstanding 18th century Georgian farmhouse, built about 1760, was occupied by Thomas Clark, an Minuteman who served in Lexington and Bunker Hill during the American Revolution. Clark Hill is named after him. Under current zoning, the lot could be subdivided if the house were to be demolished.

Pleasant Street: Abraham Hill House Built about 1693

Washington Street: John Chenery House Built about 1654

19th-Century Residences

Common Street: The Whitney Mansion Built about 1856, this Gothic Revival home, currently used as a non-conforming boarding house, is run down and clad in inappropriate siding. The lot appears to be open to subdivision. Future construction might be similar to town houses recently built on Warwick Road.

Frost Family Homes: Several homes on Lake Street and Brighton Street were built about 1805-1889 by one of Belmont's early landholders.

Early 20th Century Residences

Most Belmont homes were built in subdivisions between 1900 and 1930. Many of these homes are in danger from potential lot subdivision, neglect, or demolition to build larger homes

Modern Homes

Belmont has many homes that represent the Modern Movement in architecture, including the 1936 Miller House on Juniper Road; the 1950 Whiting House on Tyler Road; the 1956 McCreary House on Kenmore Road; and the 1956 Meyer House on Somerset Road. Others include the group of small homes designed by Carl Koch and built in 1940-41.

A house designed by Walter Gropius was rediscovered on Pinehurst Road a few years ago. For details, see "Gropius House Rediscovered on Belmont Hill," Belmont Citizens Forum Newsletter, January 2006.

Expensive Leaks Persist in Belmont Sewers

Water enters through cracks in pipes, illegal pump

By Sumner Brown

Massachusetts Water Resource Authority data shows that in 2008 Belmont used about 70 gallons of water per day per resident—but Belmont produced an average of 174 gallons per day per resident of sewage. Think about those two numbers: The difference between 70 gallons and 174 gallons is 104 gallons of extra dirty water per person per day. That’s a huge amount: 848 pounds per person per day. In my house, there’s little difference in the volume of the clean water we use and the sewage we produce. The extra water comes from problems in Belmont’s sewers. Belmont’s problems are typical of the 43 member cities and towns that get water and sewer service from the Massachusetts Water Resource Authority (MWRA).

About half the sewage processed at Deer Island, the MWRA sewage treatment facility, is not sewage but water that got into the sewer pipes by mistake. When groundwater enters Belmont’s sewers through leaking sewer pipes, it is called “infiltration”; when water that does not belong in a sanitary sewer is put there on purpose—say, by hooking up a sump pump to a sanitary sewer—it is called “inflow.”

These problems cost us money. If you spend more than 10 seconds looking at your water bill, you’ll notice that we pay twice as much for sewage disposal as for clean water. The extra water that we send to Deer Island must

be treated as sewage. Belmont pays to fix sewer problems on a continuing basis, roughly \$1 million per year, but the MWRA data give no indication that we are solving the problem.

We also pay because sewage leaks out of our sewer pipes. Between 1998 and 2000 town officials were ordered by the federal and state governments to reduce the amount of fecal coliform bacteria contaminating streams in Belmont. Dealing with that bacteria—by keeping sewage in pipes and out of streams—cost money.

Two data sources can be used to assess Belmont’s sewers. MWRA meters measure the clean water delivered to Belmont and the sewage that leaves Belmont. By looking at how the two flows vary with time when rain is falling, as people get ready for work in the morning, and as the ground dries out in summer, you can make inferences about how much extra water enters Belmont’s sewers from leaking sewer pipes and how much from sewer misuse.

In addition to the MWRA flow meters, information comes from the Mystic River Watershed Association (MyRWA). MyRWA is a non-governmental organization that wants to keep sewage out of the Mystic River. The group monitors water quality in streams and lakes, including Little Pond and Wellington Brook, by collecting and analyzing water samples. Due in part to MyRWA’s monitoring, one gross problem near Little Pond got fixed. The sewage from a house

Belmont’s Sewage in Gallons Per Person Per Day	2002	2003	2008
Sanitary Flow: Average flow of sewage resulting from domestic water use	63	61	70
Total Flow: Average flow of all sewage	141	166	174
Sanitary Flow as a percentage of total sewage flow	45%	37%	40%

Source: Massachusetts Water Resource Authority

used to go directly into the pipe that carries water from Spy Pond to Little Pond.

Sarah Shivers, a Tufts senior who is working with MyRWA, has a list of about 50 known sites in the Mystic River watershed that gush sewage during heavy rains. These are called wet weather sanitary sewer overflows (SSOs). None of the sites on her list is in Belmont, though about 10 of these SSOs are in Arlington. In the past we have had sanitary sewer overflows in Belmont, both sewers backing up in basements and sewer manholes popping up in the streets from the pressure of the water behind them.

Peak sewer flows due to storms can cause extreme distress. Storms in 2001 and 2005 overwhelmed Belmont's sewers with inflow and infiltration to the extent that sewage gushed out of the pipes into people's basements. Typically sewage spills out of the lowest opportunity for escape first, which is usually a basement. The cause of SSOs is inflow and infiltration uphill from the mess. If next week we get another storm similar to the big one of 2001, we would probably get SSOs in basements again.

Another type of sanitary sewer overflow problem is sewage that leaks into a stream continuously, a leak that does not need rainstorms to overflow a sewer. Our streams will never be completely free from fecal coliform bacteria because every bird and mouse is a source of bacteria. Water quality standards for bacteria in streams and lakes are set by states. The standard depends on the intended use. If Clay Pit Pond were a source of drinking water, it would have a higher standards than it does for recreational use. When Belmont received orders at the turn of the century to remove sources of sewage going into streams, the requirement was to meet the Massachusetts standards for bacteria in surface water

With this background, I talked with Glenn Clancy, director of Belmont's Office of Community Development and town engineer. Glenn is well aware that the flow data from MWRA shows more sewage from inflow and infiltration than from domestic water use, and our flow numbers are not improving. Glenn finds the data particularly unfortunate because the town has been spending money to reduce inflow and infiltration.

The MWRA has a program of interest-free loans and grants. In the last 16 years Belmont has received \$2.6 million to reduce infiltration and inflow from the loan/grant program.

Peak sewer flows due to storms can cause distress. Storms in 2001 and 2005 overwhelmed Belmont's sewers with inflow and infiltration to the extent that sewage gushed out of the pipes into people's basements.

In 2007 we spent about \$1.4 million of town money to line about six percent of our town sewer pipes to stop infiltration. During 2004 and 2005, Belmont spent \$1 million to remove about 100 illegal sump-pump connections from the sanitary sewers and reconnect the pumps to storm drains. Last year, the town completed a comprehensive \$700,000 study of our sewers that involved measuring sanitary sewer flows at 20 locations. This study points the way to correcting major problems that had not been known. For example, the study found big inflow problems upstream from the Winn Brook neighborhood in the vicinity of Prospect Street.

A few years ago, Town Meeting approved a bond issue for up to \$11.6 million for sewer work. The town is using that money on three projects. The first is fixing chronic sewage leakage into Wellington Brook. This project is perhaps the last of the work that was ordered at the turn of the century by the state Department of Environmental Protection (DEP). Fecal coliform

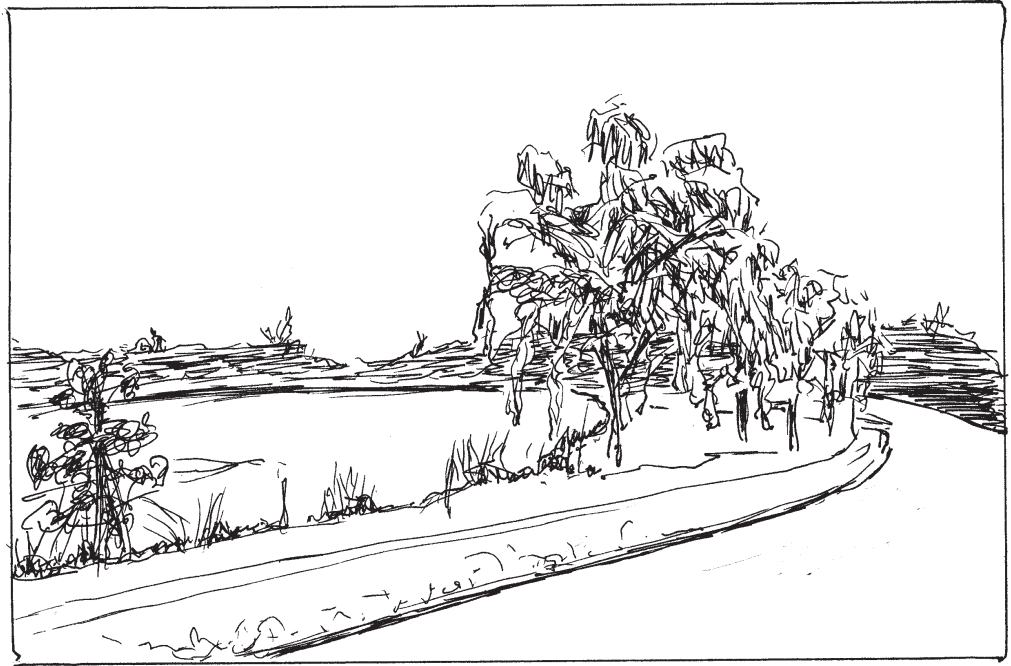
bacteria counts are high in Wellington Brook. However, after the water passes through Clay Pit Pond, the bacteria counts are low enough that the exit water is not considered a high priority problem by the DEP. This is why it was last to be addressed.

The second project on the \$11.6 million list will replace two old sewage pump stations at the ends of Stony Brook and Woodbine roads. The third project, estimated at \$7 million, addresses the sewage floods in basements in the Winn Brook neighborhood during heavy rains. It is the most complex project of the three and requires coordination with Cambridge and the MWRA. It will involve a combination of temporary storage for sewage and a pump to manage sewage flow during large storms.

The storage tank will be a 48-inch diameter sewer pipe beneath Dean Street. If the pipes leading out of Winn Brook come close to overflowing during storms, the Dean Street pipe will fill with sewage. The design of this system is almost complete and will likely include a pump on Channing Road. As part of Belmont's bargain with Cambridge and the MWRA to undertake this project, the town agreed to remove some of the inflow and infiltration now causing SSOs—including the newly detected inflow problems near Prospect Street.

The Office of Community Development has other plans beyond the three bond-issue projects. One project that will start soon is an investigation of what happens near Hoitt Road that puts sewage into Winn's Brook.

A final project involves Spy Pond in Arlington where water quality has recently declined. The problem may involve drainage from Route 2 that is partly in Belmont.



Clay Pit Pond

Why has the money that Belmont has spent over the years to reduce inflow and infiltration had so little success? Possibly we as a town and our consultants, mainly the respected firm of Fay Spofford & Thorndike, are incompetent. However, Belmont is doing about as well at controlling inflow and infiltration as the MWRA's other 42 communities that send sewage to Deer Island. If we are incompetent, we are also close to the state of the art. Another possibility is that our old pipes continue to break and start leaking as fast as we are fixing problems. Infrastructures of all kinds require Sisyphean maintenance.

A third possibility is that we have been fixing little problems while missing big ones—like those big inflow problems upstream from the Winn Brook neighborhood near Prospect Street. Until last year's \$700,000 evaluation using 20 flow meters, the town had not been aware of large inflows here. Problems on Belmont Hill are pouring down on Winn Brook.

Inflow problems are not just irritating and expensive. In addition to violating the federal Clean Water act and state law, they violate a Belmont ordinance that prohibits disposing of water in a sanitary sewer that has not been used for domestic purposes. In the past, Belmont has not prosecuted violations. In 2004 and

2005, the town spent an average of \$10,000 per pump to remove about 100 illegal sump pump connections. We cannot afford to do this for every violator. Also some homeowners open the clean-out plug on their sanitary sewer connection as a convenient but illegal way to dispose of basement water. As far as I know, this practice has never been prosecuted. Perhaps the town is reaching the point where, in addition

to asking churches, private schools, and Mass Audubon for contributions in lieu of taxes, it will stop forgiving inflow abuses.

Sumner Brown is a Director of the Belmont Citizens Forum.

Bike Path Updates

Bids for Alewife Path under Review

Bids were opened on October 14 to improve the existing multi-use path from Somerville to Belmont. According to MassHighway, the agency funding the project, the path starts at the end of the Somerville Bicycle path, continues through Davis Square, and follows Linear Park to Alewife Station. At Alewife, a new bridge will be constructed over the Alewife Brook, and the existing path will be paved up to Brighton Road, Belmont.

A Mass Highway representative stated that the earliest date a "notice to proceed" would be issued is December 15. Construction should begin in the spring.

Charles-to-Alewife Path Clears Hurdle

One segment of a proposed Charles River-to-Alewife path has gotten a step closer to construction. The state Secretary of Energy and Environmental Affairs has declared that a path to be built on a former Boston and Maine Railroad right-of-way does not require an Environmental Impact Report. The project can now apply to the state for funding and final approval.

The planned multi-use path will run through Watertown from the intersection of School Street and Arsenal Street near the Watertown Mall to the right-of-way's Arlington Street intersection near Phillipello Park. This .7-mile-long segment is part of a proposed

connection between the Minuteman Bikeway's terminus at Alewife Station and Watertown Square.

Lexington Revises Plans to Plow Bikeway

The Friends of Lexington Bikeways (FOLB) are changing tactics to ensure that the Minuteman Bikeway stays clear this winter. A new contractor has been hired who does not plow Lexington streets and sidewalks.

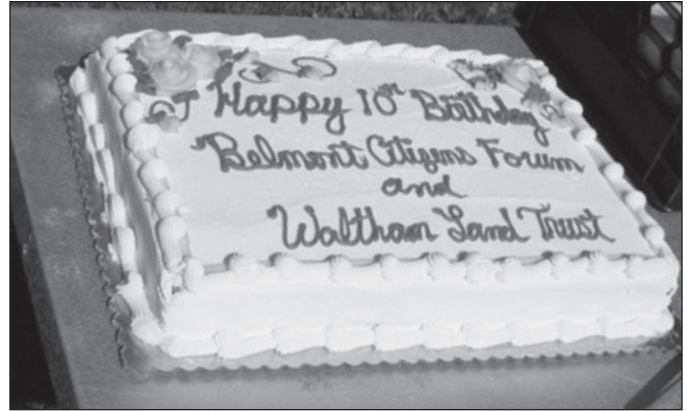
During the winter of 2008-2009, the FOLB paid for contractors who worked for the town of Lexington to plow the Bikeway. That plan ran afoul of a town policy decreeing that before the Bikeway could be plowed, the contractors had to finish plowing all Lexington roads and designated sidewalks in business districts and schools. The contractors were delayed for days and on several occasions arrived at the Bikeway after the snow had partially melted and refrozen. The new-formed glacier was unplowable, and the town abandoned plowing the Bikeway last January.

To ask questions or contribute to this year's Lexington Minuteman Bikeway plowing, contact Peggy Enders, Lexington Bicycle Advisory Committee Chairperson, at 781-863-0474.

Forum, Land Trust Observe Joint Anniversary

Joint Celebration with Waltham Land Trust Includes Cake, Walk

On September 26, the Belmont Citizens Forum joined the Waltham Land Trust for a walk through the Beaver Brook North Reservation (formerly the Metropolitan State Hospital Grounds) and a potluck picnic—with cake. Both groups were celebrating their 10 year anniversary of working to preserve local open space.



CINDY HUTCHISON

Waltham Land Trust vice president Diana Young (left) joins with Belmont Citizens Forum board member Sue Bass to cut the 10th anniversary cake.



CINDY HUTCHISON

Walkers set off on the new Beaver Brook North Boardwalk.



INGE UHLIR

George Darcy points out trees along the trail.

Homeowner Installs Solar Hot Water

By Dan Lech

On August 18 the crew from Go Green Industries pulled up in front of my Belmont home to install a solar hot water system (see “Homeowner Begins Belmont Solar Installation,” Belmont Citizens Forum Newsletter July/August 2009). A solar hot water system captures the sun’s thermal (heat) energy to heat liquid circulating through a solar collector; that hot liquid is then used to heat a home’s hot water. The system consists of two solar collector panels; a pump to circulate the liquid; a tank that holds the pre-heated water, which is then fed to the existing hot water heater; and a solar controller that monitors system temperatures and turns the pump on and off.

During the first two days of construction Go Green installed the solar tank, the controller and connecting piping. On the third day a pair of 8-foot-by-3½ foot German-made Viessman panels were hauled up onto my porch roof and bolted into place. By the fourth day a licensed plumber had made the necessary connections in the basement including a mixing valve to

regulate the hot/cold mixture going to the faucet and a backflow valve to keep the system’s liquid (a mixture of water and propylene glycol, a nontoxic antifreeze substance) from entering the town’s water supply. The system was then “charged” (filled) with the water/antifreeze mix, the controller was turned on and calibrated, and the pump was turned on.

After observing the system an hour or so, Stephen Cuzziere, Go Green’s general manager, pronounced the installation complete. The sun was now pre-heating water for my home, decreasing my existing hot water heater’s workload and reducing my natural gas usage.

As any homeowner knows, construction projects are rarely glitch-free, and my solar installation was no exception. After a few days it became clear that the system was not operating up to its potential.

The solar controller displays two temperatures: the temperature of the liquid in the collectors and the temperature of the liquid in the tank. There is generally a 40- to 60-degree temperature difference between the two; on a sunny day, the solar collectors can heat liquid up to 200 degrees,

resulting in a tank temperature of 140 to 160 degrees.

When I checked the system the day after installation the collector temperature was 209 degrees, but the tank temperature was only 80 degrees. Go Green came back the next day to test the system, and Cuzziere determined that the system was “air bound”—air had gotten into the pipes, causing the pump to shut down. Go Green drained, recharged, and retested the system. This process took the better part of an afternoon, but once again the system was deemed fully functional.

In the meantime the town of Belmont was performing inspections on the system. The building inspector had signed



DAN LECH

Solar panels are lifted to the porch roof...

off on the structural elements of the project, but the plumbing inspector had not.

Now that the system was up to speed with town regulations and functioning, we had to learn how to work with its rhythms.

The plumbing inspector determined that the backflow valve installed by Go Green was not up to the town's standards and requested a Watts Series 009 reduced-pressure zone backflow valve. Cuzziere noted that this type of valve is usually required for underground irrigation systems but not for solar thermal installations. Of all the towns where Go Green had done solar thermal installations (including Arlington, Lexington and Woburn), Belmont was the only town to request this high-grade valve.

After the new valve was installed, the plumber and I ran the hot water to test it and it seemed to be working fine. As he drove away, however, I watched as the hot water coming from my faucet slowed to a drip. The valve had not been placed properly, so it closed down and cut off the hot water supply to my home. A few hours later the plumber returned with Cuzziere and they fixed the valve together. Finally, the system was functioning correctly. Unfortunately, this type of valve makes noise when the hot water is run. It sounds like the moo of a cow

or an agitated Wookiee. But if this is the price we had to pay for reducing our environmental impact, then so be it.

Now that the system was up to speed with town regulations and functioning we had to learn how to work with its rhythms. Solar hot water tanks do not retain heat indefinitely, so you have to use the hot water within a certain time frame. For example, my wife's pre-work shower at 5:30 a.m. would not be pre-heated by the system at all, while my 9:30 shower might benefit more. Running the dishwasher and washing clothes are put off until the afternoon to maximize solar benefits. If Sunday is rainy, then my daughter's laundry will have to wait until Monday when the weatherman predicts sun.

It soon became clear that a family of three only uses so much hot water and that the system we had purchased was probably "over-qualified." If the tank reaches high temperatures and the water isn't used, pressure builds in the tank and water is released through a relief valve on the side of the tank. On some very sunny days in late summer, the valve started leaking water and we had to put a bucket underneath it. The bucket needed emptying every few days.



DAN LECH

... and fitted into place.

Despite these inconveniences and adjustments, we did benefit. Our first gas bill after installation showed a noticeable difference. In September 2008 we used 19 therms of natural gas for a cost of \$55.27. In September 2009, after the installation, we used 10 therms at a cost of \$22.82 – a reduction of \$32.45. Since we don't use our gas-fueled heating system in September our bill is almost entirely based on hot water production.

State, Feds Offer Solar Tax Rebates

To help reduce our up-front costs for the solar thermal system, we looked into various state and federal financial incentives. We had learned of an interest-free loan available from MassSAVE (a collaboration of state utilities and energy efficiency service providers) for solar thermal installations, but that loan is only available to National Grid electricity customers. Since Belmont has municipal electricity service, town residents are not eligible. Fortunately, we were able to secure an energy efficiency rebate of \$1,341.75 from National Grid (which Cuzziere helped us apply for.) Because solar thermal systems are considered renewable energy projects, we can also take advantage of tax

rebates from the state of Massachusetts (\$1,000) and the federal government (equivalent to 30 percent of installation cost, or \$2,698.) As a result of these incentives, the total cost of our solar hot water system (including installation) dropped from \$8,945 to \$3,905—a savings of more than 50 percent. If the energy savings we enjoyed in September remain consistent then the system will pay for itself in approximately 10 years. It is expected to function for more than 20 years.

Is purchasing a solar system the best way to conserve money and energy in the short term? Perhaps not. Insulating our home (next year's project) would cost less and have a more immediate impact. Still, we feel confident that in the long run our solar installation will net positive results for our finances and the environment.

Dan Lech is a 10-year Belmont resident, wine professional, and musician who is attempting to think globally and act locally.



The final installation.

Letters to the Editor

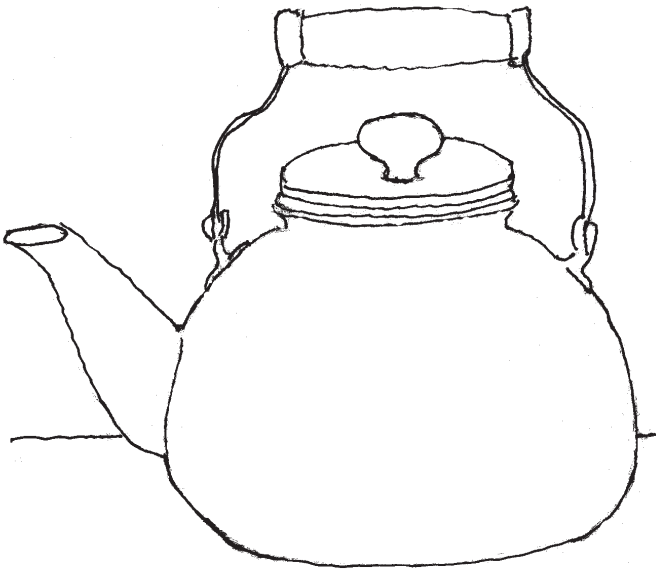
To the Editor:

I thank David Chase for his article on polite (bike) riding.

I live right around the corner of Wheelworks on White Street and was about to deliver my own comments to them regarding the unsafe practices of their customers—not all of them and not only their customers, of course—of riding bikes on the sidewalk and ignoring, or at least not warning, pedestrians. Since they get a copy of the *Newsletter*, I won't have to do this anymore, but I will ask the owner if he has read it.

It is extremely dangerous for bicyclists to ride down the street on the sidewalk without stopping at driveways, and it is extremely difficult for drivers who are trying to exit driveway to take into consideration the fact that – after they have finally figured out that no cars are coming from either side - bikes could be racing down on the sidewalk. And, as you said, speed is a major issue.

Karin Vanderspek
White Street



ANN COIT SIFNEOS

Wheelworks partner/owner Peter Mooney responds:

Wheelworks has had bicycle test ride guidelines posted at eye level on both entry and exit of our front door for the past five years. These are very specific about giving pedestrians the right of way if they [cyclists] choose the sidewalk along with being respectful of our neighbors and their property. We also encourage sales people to suggest test ride options appropriate to a rider's confidence and skill level. This said, our customers don't always follow our written or spoken suggestions. I do apologize, and we will strive for better ways to deliver our message.

In a perfect world, bikes are better suited sharing a roadway with cars, not a path intended for pedestrians. Too bad the world is not yet perfect. New cyclists often feel safer and more confident on sidewalks. After 39 years of bike commuting myself, I understand the road is a scary and dangerous place. Let's hope that mutual respect by both parties, (bikes and cars) for the rules of the road and each other will make the road a less intimidating option for new (and old) cyclists

Copy Editors Wanted

Do you enjoy searching out errors in text? Would you like to help ensure that the Belmont Citizens Forum *Newsletter* maintains high standards for writing and accuracy?

The Belmont Citizens Forum is seeking volunteer copy editors to proofread articles for this bimonthly *Newsletter*. Professional experience is desirable but not required; all you need are a sharp eye and a love for language and truth. If you are interested, please send an e-mail to info@belmontcitizensforum.org.

Environmental Events

Designing for How We Move

Thursday, November 12, 7-9 p.m.

What do architects, landscape architects, and transportation planners have in common? What role does design have in transportation advocacy? Come investigate the movement of people and how architecture and landscape architecture can make cities more socially and environmentally sustainable. www.livablestreets.info, 617-621-1746, jackie@livablestreets.info. *LiveableStreets, 100 Sidney Street, Cambridge.*

Owl Prowl and Sunrise Birding

Saturday, November 14, 5-8 a.m.

November is a great time for hearing Great Horned and Eastern Screech-Owls at Habitat. With first light the group will continue birding and look for stray or lingering fall migrants in the Victory Gardens of Rock Meadow. \$16 Mass Audubon members, \$20 nonmembers. Registration required. www.massaudubon.org, 617-489-5050, habitat@massaudubon.org. *Habitat Sanctuary, 10 Juniper Road, Belmont.*

Western Greenway Trail Work Day

Saturday, November 14, 8 a.m.-3 p.m.

Work with the Waltham Land Trust to clear brush and clean trash from the Shady's Pond area of the Western Greenway trail. Join the group for all or part of the day. Refreshments and lunch provided. Registration requested. www.walthamlandtrust.org,

info@walthamlandtrust.org, 781-893-3355.
Abbott Road, Waltham.

EOT Developers Conference

Saturday, November 14, 11 a.m.-4 p.m.

The Massachusetts Executive Office of Transportation (EOT) will host a Developers Conference featuring speakers from the transportation and technology community, and breakout sessions, where developers can meet to discuss EOT's data and what applications they are working on. Free. www.eot.state.ma.us/developers, 617-973-7000. *MIT Tang Center (E51), 70 Memorial Dr., Cambridge.*

MCAN Annual Conference

Sunday, November 15, 9 a.m.-5 p.m.

This conference co-sponsored by the Massachusetts Climate Action Network and the MIT Energy Initiative features 15 panels including "Renewable Energy Technologies" and "The Green Community Act by the Numbers." www.massclimateaction.net/conference/2009-conference.html, 617-515-0600, conference@massclimateaction.net. *MIT Stata Center, 32 Vassar Street, Cambridge.*

Plans for Beaver Brook Reservation

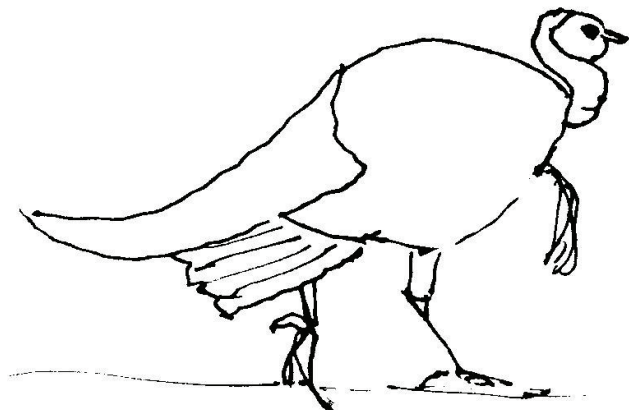
Tuesday, November 17, 6:30-8:30 p.m.

The Massachusetts Department of Conservation and Recreation will present an overview and update of a draft Resource Management Plan for the Expanded Beaver Brook Reservation and solicit public input. The plan is available at www.mass.gov/dcr/stewardship/rmp/rmp-beaverbrk.htm. 617-960-7298, andy.backman@state.ma.us. *Habitat Education Center and Wildlife Sanctuary, 10 Juniper Road, Belmont.*

Indoor Air Pollution

Wednesday, December 2, 7-9 p.m.

Sustainable Belmont hosts Guest speaker Helen Sahi. Sahi will discuss indoor air pollution, perfumes and toxic household cleaning supplies and green alternatives. Held in the Assembly Room of the Belmont Public Library. Information: sustainablebelmont@gmail.com, www.belmont.lib.ma.us. *Assembly Room at the Belmont Public Library, 330 Concord Avenue, Belmont.*



ANN COIT SIFNEOS

Have Yourself a Green Holiday Season

Saturday, December 12, 2-6 p.m.

Come to a special holiday event at NEXUS to learn how to make your celebrations greener. From energy efficient heating systems to green gifts, this is the major green event this holiday season. Register by December 8 at events@greenroundtable.org with "Have Yourself a Green Holiday Season" in the subject line. www.nexusboston.com, 617-374-3740. NEXUS, 38 Chauncy St., 7th Floor, Boston.

Winter Solstice Celebration

Saturday, December 19, 1-3 p.m.

Habitat sponsors a family-friendly afternoon of traditional solstice activities and stories, warm cider, and a few surprises. \$8 Mass Audubon members, \$10 nonmembers. Registration required. Information: www.massaudubon.org, 617-489-

5050, habitat@massaudubon.org. Habitat Sanctuary, 10 Juniper Road, Belmont.

Belmont Citizens Forum 10th Anniversary Celebration

Sunday, January 31

Look for your invitation in the mail this fall, or e-mail info@belmontcitizensforum.org if you'd like to attend.



White Pine

ANN COIT SIFNEOS

We need you.

If you can volunteer even a few hours a month, you can make a difference. You do not need to be an expert—just a person who cares about our town.

I can devote time to:

- Archaeology & Historic Preservation
- Environmental Protection
- Planning & Zoning
- Community Path
- Walking in Belmont
- Mailings
- Newsletter

I can help pay for this newsletter:

It costs about \$4000 to publish each issue of our newsletter. Please donate for this purpose:

\$25 \$50 \$100 \$250

Name _____

Address _____

Phone/E-mail _____

If you have questions, please call (617) 484-1844. The Belmont Citizens Forum is a nonprofit 501(c)(3) organization. Your donation is deductible from federal taxes to the full extent provided by law.

Make checks payable to **Belmont Citizens Forum** and mail to Belmont Citizens Forum, P.O. Box 609, Belmont MA 02478.

Thank you.

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