

Belmont Citizens Forum

Vol. 7, No. 1

A Newsletter for Belmont Residents

January 2006

Baskin Details Massachusetts Water Woes

By Meg Muckenhoupt

Massachusetts has plenty of water – but a lot of it is going to the wrong place at the wrong time. Rivers are running dry 30 miles away from houses swamped by floods. Consider these two paradoxes:

- Though the state gets more than 44 inches of rain a year, two coastal communities are so short of water that they are building desalination plants to turn sea water into drinking water.
- Clean water pours into the sanitary sewer systems of Belmont and other communities with older pipes; yet sewage bubbles up in basements of homes in Belmont, Arlington, and Cambridge.

Kathleen Baskin, director of Water Policy at the Massachusetts Executive Office of Environmental Affairs, blames many of these ills on intense development in the last decade. Baskin says it will take intense attention to the way we use water to help all communities, from the parched to the flooded and polluted.

In a program entitled, "Floods, Drought, and the War Over Water," sponsored by the Belmont Citizens Forum and the Massachusetts Audubon Society's Habitat Sanctuary on December 3, Baskin said development has changed our environment so much that we are replacing the natural water cycle with a man-made water cycle. The natural water cycle is the familiar picture from middle-school earth science classes, where rain runs into streams or gradually drips through the ground to replenish rivers.

The man-made water cycle is different. Sewers and pavement funnel rainwater rapidly into storm drains, which empty into rivers, which whisk the water out to the ocean. Little moisture soaks into the soil, while storm drains overflow and houses flood. All the stormwater rushes through the drains and into the river, where it is carried off to the ocean. Between storms, rivers do not get recharged – there is little to seep gradually from the soil when the weather is dry, and keep the water level in the river fairly constant.

Between 1990 and 2000, Baskin said, the state's population grew by 330,000 people. Most of these new residents moved to the communities surrounding Route 495 – towns which do not get their water from the Massachusetts Water Resources Authority (MWRA)'s Quabbin Reservoir. These communities get their water from wells, which get their water from groundwater – which sometimes comes from the headwaters of the Assabet and the Charles rivers.

Rivers get their water only from their own watershed. A watershed is all the land that drains into a particular river; a drop of water that falls into the

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Environmental Events Calendar

By Michael Stratford

Family Winter Walk. Sunday, January 22, 1 p.m. Join volunteer naturalists Mary White and Michael Arnott, both trained by the Appalachian Mountain Club, for a family afternoon walk around the Alewife Reservation. Learn some basic ecology and discover signs and tracks of wildlife, including coyote. Wear boots, dress for winter conditions, and bring a snack to this event, sponsored by the Friends of Alewife Reservation. Meet at the Discovery Park parking lot, off Route 2 on Acorn Park Drive. For more information, please call 617-868-7591.

How Can I Tell the Trees Without Their Leaves?

Sunday, January, 22, 2 p.m.–4 p.m. Join Hilary Hopkins in visiting some of Habitat's newly signed trees and find out how to tell them apart—even now, in winter. Afterward, come inside for cocoa, cookies, and a quiz! This event is sponsored by Habitat

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Belmont Citizens Forum, Inc.
is a not-for-profit organization that strives to maintain
the small-town atmosphere of Belmont, Massachusetts,
by preserving its natural and historical resources,
limiting traffic growth, and enhancing pedestrian safety.
We do this by keeping residents informed about planning
and zoning issues, by participating actively in public
hearings, and by organizing forums on key subjects.

Our newsletter is published six times a year (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 editor@belmontcitizensforum.org

Wildlife Sanctuary, 10 Juniper Road, Belmont. \$12 for members, \$15 for non-members. Call 617-489-5050 for required registration.

Sustainable Belmont Meeting. Wednesday, February 1, 7 p.m.–9 p.m, and Wednesday, March 1, 7 p.m.–9 p.m. The February session will focus on developing a climate action plan and will include a roundtable discussion with graduate students from Tufts University's Urban and Environmental Policy and Planning Department. Meets in the Flett Room of the Belmont Memorial Library.

Green Design and Construction in Lexington.

Thursday, February 9, 7 p.m.–9 p.m. The Green Roundtable Inc. will host a presentation about Green Design and Construction in Lexington at Cary Memorial Library, 1874 Mass Ave. Lexington. Sponsored by the Lexington Global Warming Action Coalition. See http://www.lexgwac.org/ for more information.

Judith K. Record Memorial Conservation Fund Concert VI. Sunday, February 12, 3 p.m. Enjoy the works of Beethoven, Hoover, Mozart, and Brahms, performed by the Record Players at this free wheelchair-accessible event in Payson Park Church, 365 Belmont Street, Belmont. A reception will follow the concert. Voluntary contributions may be made at the door to the Mass Audubon Society/JKR Fund. For more information, call 617-489-4727 or 617-484-5064.

Birding in Belmont: Winter. Tuesday, February 14, February 28, March 14, 7 a.m.—8:30 a.m. Join Jeny Ladd and Habitat Wildlife Sanctuary for a trio of bird walks. Birders of all levels welcome. The 2/14 walk will meet at the Habitat Visitor Center; the 2/28 walk will meet behind Shaw's supermarket at 130 River Street, Waltham; and the 3/14 walk will meet at the Rock Meadow parking lot off Mill Street, Belmont. \$5 per walk for Mass Audubon members, \$7 for non-members. Call 617-489-5050 for required registration.

Waltham Land Trust: Historical Farms in Waltham and Weston. Wednesday, March 15, 7 p.m.

Questions for Planning Manager Jay Szklut

Jay Szklut started work as Belmont's new Economic Development and Planning Manager in December. The Belmont Citizens Forum asked him about his history and his hopes for the town.

1. What is your background? What sort of experience do you have as a planner and in community development?

For the past 10+ years, I was the planning and community development director for the town of Hull. Prior to that, I was the executive director of a non-profit community-development corporation operating in the city of Brockton. I also hold a master's in regional planning from the University of North Carolina.

2. Tim Higgins was a Senior Planner; you are Belmont's Economic Development and Planning Manager. Why did the title of the office change? How are your responsibilities different from Tim Higgins's?

Over the past several years, the town has more explicitly begun to focus on economic development and in particular the revitalization of its commercial areas. I believe that the title simply reflects this additional concern. The responsibilities of my office must therefore expand to include local economic development within the town's planning framework.

More specifically, I see two additional roles for the planning and economic development manager. First, in conjunction with the Planning Board, the office will be responsible for examining and implementing various economic-development initiatives and programs and, where necessary, to seek funds to implement appropriate programs and policies that improve the community and assist local businesses in the town. Second, the manager is responsible for establishing relationships with existing businesses to insure their voices help inform land-use decisions.

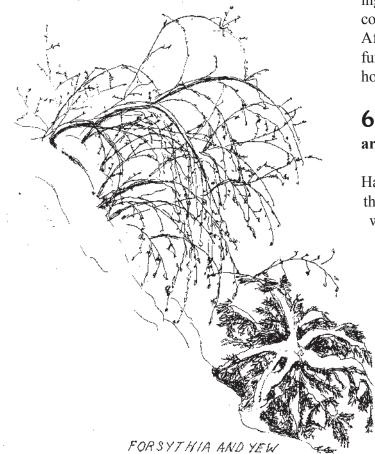


3. Who do you answer to—the head of Community Development? The selectmen?

I report directly to the town administrator.

4. How will you communicate with the citizens of Belmont?

Certainly, the town's web page will continue to be utilized to the extent it has been in the past. Reports,



studies, proposed policy or zoning changes will be posted and available. Any resident may always call me at the community-development department: 993-2650. While I may not be able to respond immediately, I will always endeavor to return all phone calls. Lastly, in working with various boards and committees, I will continually communicate the need to inform and, when necessary, educate the public on proposed policies, programs, and initiatives via forums, public hearings, and other board-/commit-

tee-sponsored public meetings.

5. What lessons did you learn in Hull that you think would apply to Belmont?

The most important lesson learned is that serving in the best interests of the community requires the ability to listen to the residents of the community. As a corollary, the professional must be able to accept that his or her professional opinion may not be "correct." In Hull, the town desired to develop a marina and marine-related development on a vacant, town-owned pier. Without going into all the specifics, my analysis and subsequent recommendation was to develop housing on the pier to subsidize the overall development costs. Residents did not want housing on the pier. After four, albeit frustrating, years, today there is a functioning marina under development and no housing.

6. How do you view your job in Belmont? What are the major things you want to accomplish?

Having been here less than two weeks as I complete this questionnaire, this is a difficult question for which to provide a specific answer. Based on my interviews and some initial discussions with a few committees, I would hope to have established programs, policies, and initiatives that will be recognized as enabling the town's commercial renaissance. And I would hope that the core of the renaissance is that Belmont's commercial centers do not overwhelm the community but become a core element of this community's identity. More specifically, design guidelines, a parking plan, and an economic-development strategy utilizing district-improvement financing and business-improvement districts should be implemented.

7. What will Belmont's main challenges be over the next few years?

This again is a question that I am not yet prepared to answer. A major component of my job is to identify those challenges as early as possible and to begin to formulate strategies for addressing those challenges.

What is 'Smart Growth'? Does Belmont want any?

With saving open space goes the responsibility to think about where and how we should develop, because people do need to live somewhere. One way to allow growth while preserving open space could be 'Smart Growth,' a philosophy of increased density in selected areas, usually near public transportation. But how much density, and where? Does any neighborhood *want* more density? What amenities reward those who accept it?

Ask Belmont's planners what they think. Tell Belmont's planners what you think.



Speakers:

Jay Szklut, Economic Development and Planning Manager Karl Haglund, chairman, Belmont Planning Board

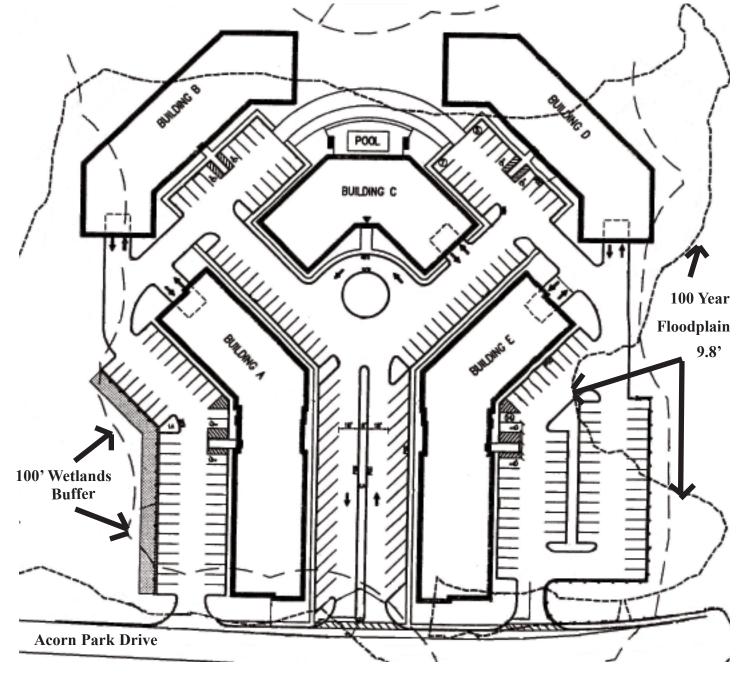
Wednesday, February 8, 7:30 – 9 p.m. Chenery Middle School Auditorium

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For more information: call Belmont Citizens Forum, 617 484 1844 or check www.belmontcitizensforum.org



A simplified view of the 299-unit Chapter 40B development proposed for the Belmont Uplands by O'Neill properties.

On Friday, December 16, O'Neill Properties filed an application to build 299 rental units in the Belmont Uplands. O'Neill is seeking a permit under Chapter 40B, a state law that allows developers to ignore local zoning when at least 20 percent of units are affordable housing. The application goes directly to the Zoning Board of Appeals (ZBA), which must open a hearing on the development within 30 days; however, it can take six months to approve a project. The ZBA opened its hearing on January 11.

O'Neill's application assumes that the 100-year floodplain is 9.8 feet - that is, the highest point that water will reach in a flood that has a one percent chance of happening each year. Preliminary work by FEMA last spring indicated that the 100-year floodplain was 10.6 feet (See "Flooding, Sewers May Limit Uplands Plans," *Belmont Citizens Forum Newsletter*, March 2005, at www.belmontcitizensforum.og) — *Editor*

8. How will you address environmental issues and sustainability in town planning? What role do they play in town policy?

Given that much of state discretionary funding is now tied to furthering the state's Principles of Sustainable Development, for Belmont to access any of those funds, the town must in any project consider how the project relates to those principles. My job will be to insure that projects or programs are sensitive to environmental issues and principles of sustainability through informing the relevant boards and committees that their decisions and their recommendations must explicitly consider those concerns.

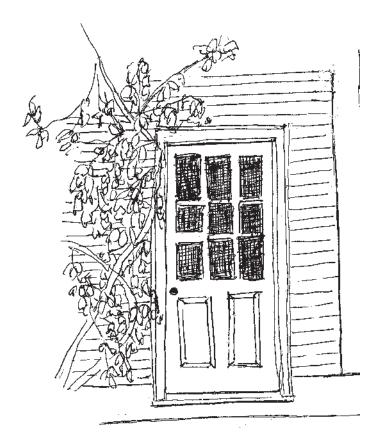
9. What do you think of recently passed legislation Chapter 40R, the Smart Growth Zoning and Housing Production Act, and Chapter 40S, which promises to pay the additional school expenses that a town incurs when families with children move into newly built affordable housing?

I have mixed feelings about the legislation. Certainly the intent of the legislation and the concept of smart growth are laudable. However, good planning is not just deciding where to put increased density in order to preserve suburban green space. It is also not just providing minimal funds to pay for education costs. (As an aside, when will the state address the question of why so many municipalities feel they can no longer educate their kids? Towns did not complain when you and I went to school, but let's not talk about our kids moving back home and sending their kids to our schools.)

As with other "planning" legislation initiated by the commonwealth, the legislation attempts to create a one-model-fits-all package. But the density appropriate for Town A may not be appropriate for Town B. Therefore, the legislation pushes density to already dense communities but does little to help resolve growth pressures faced by other communities. Rather than focus solely on paying for schools, smart growth should include, among other things, improving the public transit system—especially the suburban-to-suburban links.

10. Would smart-growth districts benefit Belmont? If so, how? If not, why not?

Smart-growth districts could benefit the town, but, of course, this would depend on the specific location. Not all locations would be appropriate for the density required by smart-growth zones. However, certain locations may be appropriate. For example, commercial areas may benefit by introducing some appropriate residential development. Whether this



development meets smart-growth standards depends on the location. If the location is suitable for a more dense development—i.e., infrastructure is in place and does not adversely affect neighboring properties and area—then smart-growth zoning should be considered. There may also be some specific non-commercial sites that are currently vacant or underutilized that may be appropriate, and if so, the town should certainly take advantage of the financial incentives. It is important in evaluating the appropriateness that the financial incentive should be one of the final factors and certainly not one of the initial or even key factors.

DEP Commissioner Disavows "No Net Loss"

By Sue Bass

For at least two decades, Massachusetts state officials have pledged to prevent any net loss of wetlands. That promise became a cornerstone of green campaigns. In 1990, the no-net-loss-of-wetlands policy was embodied in a formal document signed by the Massachusetts Secretary of Environmental Affairs and the commissioner of the state Department of Environmental Protection (DEP). In it, they pledged to "stop the incremental destruction of Massachusetts" wetlands" and "to achieve the short-term goal of no net loss and the longer-term goal of an increase in our wetlands base." The state's website still declares that "wetlands resources are protected by a 'no net loss of wetlands' policy. Projects that affect wetlands are required to avoid impacts where possible, minimize unavoidable impacts, and mitigate for unavoidable impacts." (See http://www.mass.gov/czm/ envpermitmaprotectionact.htm.)

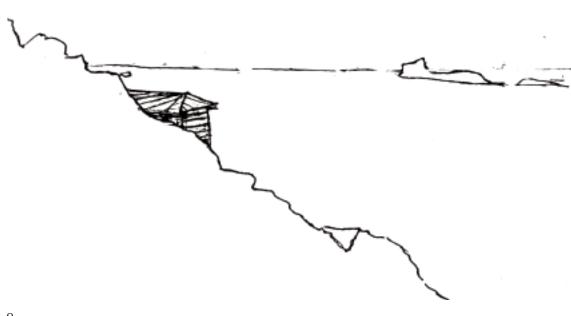
Nevertheless, last fall the DEP authorized a permit allowing the destruction of 8.7 acres of wetlands in the Blue Hills Reservation. It required restoration of less than one-quarter of an acre of wetlands. This is the largest loss of wetlands authorized in 15 years. The Massachusetts Water Resources Authority (MWRA) has drained a pristine reservoir in the Blue Hills in order to construct two huge concrete tanks,

each 40 feet high and 240 feet in diameter. The tanks will be filled with 20 million gallons of water to serve as a one-day emergency drinking water reserve for 100,000 Quincy-area residents.

Emptying Blue Hills Reservoir has scarred the natural scenery of a more than century-old park that provides one of the few bucolic escapes for the city and suburban population. The tanks will displace many wetland species, disfigure the heart of the park with chain-link fences and "No Trespassing" signs, and destroy the longest water view from any roadway in the reservation. Many people living near the Blue Hills have questioned whether this project is necessary or desirable. Bottled water would be a cheaper way to provide a one-day emergency drinking water supply, they note. And there's no need for covered tanks for water to fight fires; that could have been obtained from the old reservoir.

Golledge Calls Wetlands Policy "A Joke"

Environmental groups expressed shock at the state's disavowal of the "no net loss" policy. Sixteen organizations, including the Belmont Citizens Forum and a number of state and national groups, wrote to the current DEP commissioner, Robert Golledge, in November to protest what they called "a dangerous precedent." A delegation from the informal coalition



Policy for Wetlands Development in Blue Hills

that drafted the letter, Advocates for Wetlands and Watersheds, met with Golledge this month to urge him to re-issue the No Net Loss Policy and to revise the state's Wetlands Regulations to require No Net Loss of Wetlands for all projects, including variances. He refused, saying that the "no net loss" policy was a "joke ... a feel-good goal." While saying any change in regulations would risk backlash from developers, Golledge invited the group to submit proposed regulatory standards.

Golledge issued the decision disavowing the "no net loss" policy last fall. He overturned a decision made last summer by Administrative Magistrate Mark L. Silverstein that the state's "no net loss of wetlands" policy required replacement of the lost wetlands.

Golledge rejected "the conclusion ... that there is a fifteen-year-old 'No Net Loss Policy' which would bind the Department to require some future mitigation." Despite the document signed by his predecessors, Golledge added, "I can find no evidence in the

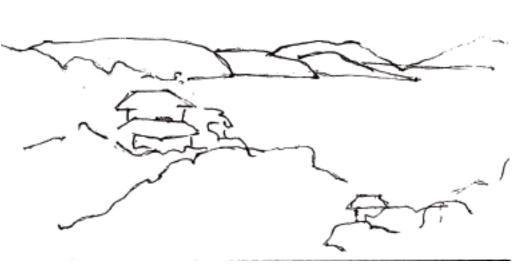
record of any 'No Net Loss Policy' of either the Wetlands Program or the Department currently in effect so that interested parties would expect its application in permitting decisions." Even if there were such a policy, Golledge said, he would waive it. This is the first variance awarded under the Massachusetts Wetlands Protection Act since 1990 that did not require at least 1:1 replacement for lost wetlands; most required 2:1 replacement.

The Friends of the Blue Hills filed suit in Norfolk Superior Court requesting a preliminary injunction to stop the draining of the reservoir. "MWRA's clear purpose is to destroy the Reservoir's habitats before this Court has the opportunity to review DEP's variance," the brief argued. "The [Wetlands Protection] Act does not permit anyone, even MWRA, to kill first and answer questions later." The injunction request was denied last month, but Friends of the Blue Hills have decided to continue litigating the loss of

wetlands. Many documents relating to the tank project are available through their web site,

http://www.friendsofthebluehills.org/BHreservoir.htm

Advocates for Wetlands and Watersheds began meeting in August 2004 to protest changes in DEP regulations that limited the protection of wetlands and riverfront property. The group has since expressed concerns about stormwater management, a proposed wetlands mitigation bank, and other state policy issues. The 16 organizations that signed the November letter are the Belmont Citizens Forum, the



Berkshire Environmental Action Team, the Connecticut River Watershed Council, the Conservation Law Foundation, the Environmental League of Massachusetts, the Friends of Blue Hills, the Massachusetts Association of Conservation Commissions, MassAudubon (the Massachusetts Audubon Society), the Massachusetts Land Trust Coalition, MassPIRG (the Massachusetts Public Interest Research Group), the Mystic River Watershed Association, the Neponset River Watershed Association, the Organization for the Assabet River, New England PEER (Public Employees for Environmental Responsibility), the Massachusetts Sierra Club, and the Taunton River Watershed Alliance.

— Sue Bass is a director of the Belmont Citizens Forum and represents it on Advocates for Wetlands and Watersheds.

Water Supply continued from page 1

Charles River watershed will eventually make its way into the Charles River, and never into the Hudson. Belmont straddles two watersheds: the Mystic River watershed and the Charles River watershed. All local water eventually flows into one of those two rivers and off to the sea.

Normally, groundwater provides the recharge water that keeps rivers flowing between rains. When the water table in the ground gets low enough, though, water flows the other way out of the rivers and into the groundwater. This leaching is why the Ipswich River was completely dry for a nine-mile stretch last summer. "The fish [on the parched river bed] looked like fossils," said Baskin. Local residents drank their river dry.

When wells take water out of the Ipswich River watershed, the river can't get water from anywhere else. Even when the river doesn't dry up entirely, the reduced flow means that pollutants are more concentrated, the water temperature rises, and there is

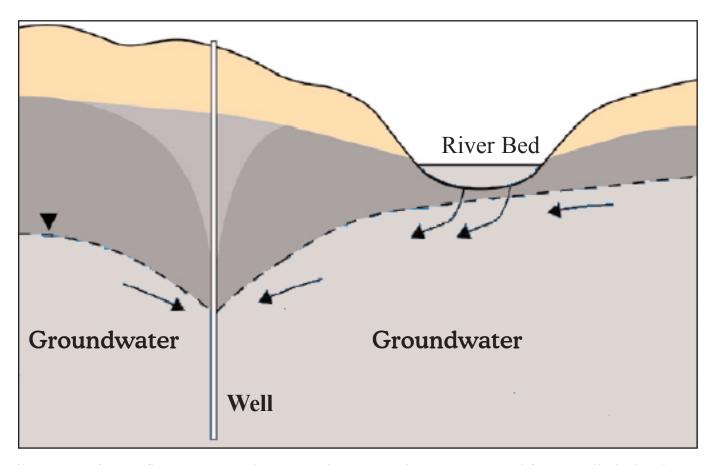
less dissolved oxygen for fish and other creatures. The wetlands, which should act as sponges for rainwater, dry up and lose their ability to absorb excess water. It becomes difficult to swim, canoe, kayak, or even look at the river fondly.

When a river stops running, entire communities are affected. Water shortages lead to building moratoriums, because towns do not have enough water for new residents. The towns of Swansea and Dighton are considering building expensive seawater desalination plants, and Middleton now regulates private wells as well as public water users.

Raw Sewage Flows in the Great Swamp

While Ipswich, Dighton, Swansea, and Middleton are drying up, in Belmont some Winn Brook residents have pipes sticking up in their back yards to drain groundwater during floods.

"On Cross Street, I've seen manhole covers dance on the stormwater," Baskin said. Before 1900, Fresh Pond was called "The Great Swamp," and was



An illustration of water flow in a stressed system. When too much water is pumped from a well, the local groundwater level falls, and water that would have flowed into the stream goes into the well instead. Simplified version of graphic provided by Kathleen Baskin

surrounded by marshes. Now, most of the area has been filled and paved. During heavy rains, stormwater cascades over pavement instead of dripping into the soil, and storm drains overflow. Rainwater gets into Belmont's sanitary sewers in such high volume that the sewer lines became pressurized. This pressure forces sewage up into basements and into storm drains. That is why the Little River and Little Pond are contaminated with raw sewage when it rains.

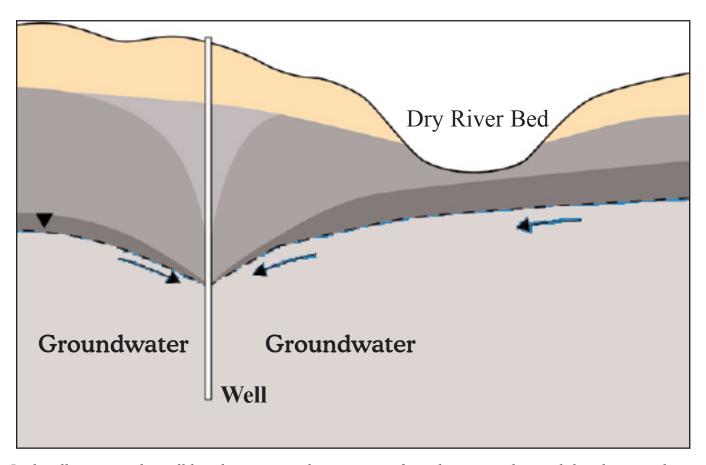
Some of the sewage comes from combined sewer overflows (CSOs). Roger Frymire, who attended Baskin's talk, is an avid kayaker who has been collecting water samples from the Mystic and Charles rivers for over two decades. He paddled from Medford up the Alewife Brook to Little Pond last September 27, after there had been a quarter inch of rain the night before. Frymire found compelling evidence that some local storm drains are illegally connected to sewers: intact toilet paper in Little Pond. "Toilet paper doesn't last very long," Frymire commented dryly.

Still, Frymire said, "Belmont has made great

strides... [Belmont's] storm drains have improved by an order of magnitude... [since] the DEP ordered Belmont to investigate cross-connections." (The Environmental Protection Agency told Belmont to investigate cross-connections in October 1998. The DEP ordered the town to fix those illegal cross-connections in January 2000.)

Illegal hookups often happen when contractors connect storm drains to the nearest pipe in a street without checking which pipe is the sanitary sewer and which one is the storm drain. In the Winn Brook neighborhood, the sewer and storm drain pipes are close together and near the surface – which probably contributed to that neighborhood's drainage ills.

In 2004, Massachusetts developed a new water policy with standards for all aspects of water use – including lawn and landscape watering. According to these standards, households should use no more than 65 gallons per person per day. A century ago, Boston residents used over 120 gallons of water per person



In this illustration, the well has drawn so much water away form the surrounding soil that the groundwater level has fallen below the level of the river bed. The Ipswich River suffers similar drainage every summer. Simplified version of graphic provided by Kathleen Baskin.

Water continued from page 11

per day, and pipes in the ground leaked at least a third of that water away.

These new standards are especially hard on the newer suburbs around Route 495, which are cursed with a water-hungry crop: grass in brand-new lawns. Many of these subdivisions have shallow topsoil – as little as two inches in some cases – which cannot possibly retain enough water to support grass without extensive irrigation. However, homeowners could reduce water use significantly by changing their lawn-care practices. Russ Cohen, another attendee and an advocate who works with the state Riverways program, said that when Newton and Wellesley urged residents to reduce usage of lawn chemicals to protect public health, people didn't need to water their lawns as often. Organic lawn care improves the soil, allowing it to retain water better.

The DEP is starting to look at alternate methods of water conservation, such as reusing household waste

How Much Water Do You Use?

It can be difficult to figure out how much water you use because water bills are calculated in cubic feet, not gallons. To calculate your daily water use in gallons, use this equation:

of cubic feet x 7.48 gallons/cubic foot # of days x # of people in household

= gallons per day per person.

Some municipalities issue water bills that look like electric bills; they show how much water you used at the same time the previous year, so that homeowners can see if their usage is increasing – perhaps from a leak or a teenager's endless showers. Monthly bills would also help users detect water waste more quickly than the current quarterly schedule.



The dry Ipswich River Stream Bed, September 1999. Photo courtesy of Kathleen Baskin.

water from sinks, showers, washing machines, and other sources (but not the toilet). Known as "gray water," this water is controversial. Public health officials are suspicious that gray water could spread disease, although Gillette Stadium in Foxborough already uses graywater to flush toilets. Baskin said that there is draft legislation to allow more graywater usage in the state. "It's thriftiness vs. public health," Cohen commented.

The state is also streamlining the process of removing dams and letting rivers run free – improving the environment for fish who swim upstream to spawn and for recreational boaters. "90 percent of the cost of removing a dam is permitting," Baskin said.

For now, though, communities near Route 495 – where the headwaters of the Assabet and Charles Rivers lie – have watering bans in place each summer. Belmont doesn't have to worry about a watering ban any time soon. The town is a member of the Massachusetts Water Resources Authority, which has plenty of water in the Quabbin Reservoir for now. But the Quabbin drains the Swift and Nashua rivers, and one day MWRA towns may also be subject to watering bans as those rivers run dry. "Swansea uses 40 gallons of water per person per day," said Baskin, "...Why should we be water rich when they're water poor?"

 Meg Muckenhoupt is Editor of the Belmont Citizens Forum Newsletter.

Questions and Answers with Kathleen Baskin

Kathleen Baskin is Director of Water Policy at the Massachusetts Executive Office of Environmental Affairs. Baskin oversees implementation of the state's first Water Policy, the state's first Desalination Policy, and updated Water Conservation Standards. She is also working to restore fisheries habitat by removing dams that prevent fish from swimming upstream to their spawning grounds. A Belmont resident since 1993, Baskin has been a member of the Belmont Conservation Commission since 1994.

Baskin has an MS in Environmental Engineering and BS degrees in Civil Engineering and Biology, all from Tufts University. She began her career with the environmental consulting firm Metcalf & Eddy, Inc., where she analyzed environmental impacts of pollution and ways to clean up Boston Harbor. Baskin went on to work with the Charles River Watershed Association, where she developed and directed technical research programs.

— Meg Muckenhoupt

How did you get into the water business? You started in Civil Engineering and Biology; were you intending to end up in the environmental field?

I started out as a biology major as an undergraduate at Tufts University, but I knew I wanted a career in the environmental field. At the time, civil engineering was the only undergraduate major offered at Tufts that had anything to do with the environment. So there I was, a junior reading the course catalog and wondering what civil Engineering was all about. Not an ideal way to pick a major, but luckily it worked out well and later I earned a master's in bnvironmental engineering that helped tie together my two undergraduate degrees. It's terrific that students today have many more options when studying the environment.

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Comparison of Water Use in Belmont and Nearby Communities

Town	Population	Daily Use gallons/person/day	Summer to Winter Ratio (watering lawns etc.)	Unaccounted for Water (%)
Arlington	42,389	88	1.14	Not Reported
Belmont	25,000	73	1.33	2.1
Cambridge	101,355	49	1.15	29
Lexington	31,507	65	1.47	Not Reported
Waltham	61,000	68	1.21	Not Reported
Watertown	32,986	59	1.19	Not Reported
Weston	11,110	104	2.41	9.3

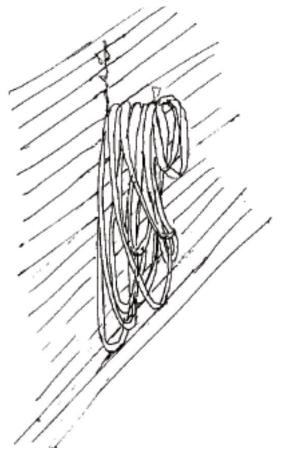
Data provided by Kathleen Baskin.

Baskin Q&A continued from page 13

What is the most interesting aspect of your job?

Having the environment as my client is especially rewarding. I enjoy problem solving and working with others to develop sound environmental policy.

What strengths do you bring to your work at the EOEA? What parts of your prior experience help you do your job?



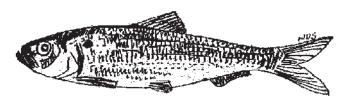
Although my position focuses on environmental policy, the engineering experience I gained both at Metcalf & Eddy and at the Charles River Watershed Association allows me to grasp the technical aspects of the problems we are trying to solve, whether it's related to flooding and droughts, contamination of our waterbodies, or damaged aquatic habitat. While I was at the watershed association, I also worked closely with the public, agencies, municipalities, and businesses, advocating for better environmental outcomes based on results of our research. I am fortunate to have worked on both sides of the issues, which gives me an unusual perspective.

If you could change three things about Massachusetts right now, what would you change?

I struggled with this question because Massachusetts is a terrific state and its people are very environmentally-minded... I would make the Massachustts coastline publicly owned land, as it is in most states. Colonial ordinances from the 1640s transferred the rights to coastal land (that area from the uplands to the low water mark) to the upland property owner. This promoted commerce but limited public access and enjoyment. Luckily, the state does has some wonderful areas of protected public coastline, including the National Seashore. Also, anyone who is fishing (or at least who is holding a fishing rod) is allowed to walk between the high and low water marks of the coast. Lastly, I might make it a little warmer in the winter or perhaps extend summer a little longer!

What is the most important issue facing the EOEA now? The Belmont ConCom?

A critical issue facing EOEA and the state is water supply — towns are literally running out of water in a state where we get 44 inches of rainfall each year. Towns are struggling to meet increasing demand for water — the result of tremendous growth in the past decade. At the same time, EOEA and its agencies are trying to ensure that our wate rbodies maintain enough water in them to support aquatic life and don't dry up.In Belmont, the town's conservation land, Rock Meadow, has become overgrown with trees and brush and needs considerable mowing and trimming in order to maintain it as a meadow. Last fall, a group of dedicated volunteers made tremendous progress maintaining trails and trimming back the brush, but the land requires ongoing maintenance. The Conservation Commission is finalizing a management plan for Rock Meadow that will specify activities that are needed and any commitments that would be associated with those activities.



Blueback Iterring

Gropius House Rediscovered on Belmont Hill

By Joe Cornish

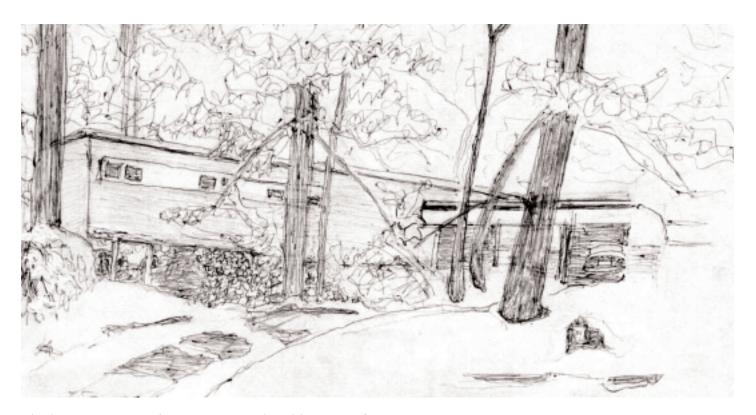
Belmont's neighborhoods are a case study in the evolution of New England's domestic architecture. Venerable timber-framed First Period homes dating to the seventeenth century are represented along with traditional textbook examples of Georgian, Federal, Victorian, and Colonial Revival buildings. In addition to these familiar structures, Belmont has a cache of mid-twentieth century Modern homes constructed of non-traditional building materials such as metal and glass. These Modern homes are now of interest to scholars and architects across the globe.

This fall the Belmont Citizens Forum was contacted by an architecture student from Montpellier, France seeking information about a house in Belmont designed by Walter Gropius. Working with a distorted digital image of the building's facade, Sue Bass and I consulted history books, contacted the Belmont Building Department, and interviewed members of the Belmont Historical Society for any information that would be helpful in identifying this house. After several walking tours of neighborhoods with Modern style homes such as Snake Hill Road and Clifton Street, I identified the house as the Howlett House,

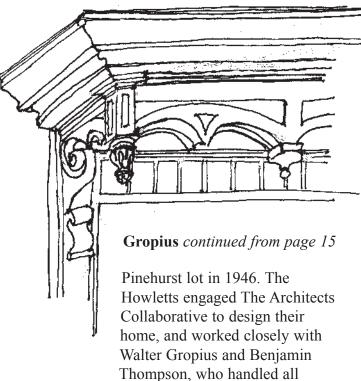
which is tucked away in a pristine state of preservation on quiet Pinehurst Road.

Walter Gropius (1883-1969) was the founder of the German design school known as the Bauhaus and is one of the most influential architects of the twentieth century. He came to the United States in 1937 and built a home for his family in Lincoln, Massachusetts. That home is now a house museum owned and operated by Historic New England/Society for the Preservation of New England Antiquities. In 1938 Gropius was appointed the chairman of the Department of Architecture at Harvard's Graduate School of Design, a post he held until 1952. In 1946 he and several like-minded architects, including American-born architect Benjamin Thompson, formed The Architects Collaborative firm in Cambridge, where the partners worked together as a design team. Gropius believed that every aspect of a home and its surrounding landscape should be planned for maximum efficiency, yet kept simple in design. It is in this spirit that the Howlett House in Belmont was designed.

Dr. Clarence and Jeannette Howlett puchased the



The house at 69 Pinehurst St., as rendered by Ann Sifneos.



aspects of the project including the structure of the house, its furnishings and its surrounding landscape.

The finished project was praised internationally by architects and critics shortly after its completion. The house was described in an uncredited article in the June 1950 issue of Architectural Forum: "The unique feature of the house is the almost sleight-of-hand cleverness with which its three different levels face three different kinds of terrain with three different kinds of character, never losing the homogenous quality of the whole. To the nearby street the house presents a discreet cypress front with a low silhouette to blend with a conventional neighborhood. On the side away from the street the one-story top-floor living area turns an all-glass face to tree-covered, rolling ground. The two floors of the sleeping and playroom areas front on a smooth lawn at the lower level. The focal point of these different elements is a big central open stairwell, walled with glass extending the full height of the house where the three levels converge. From almost any viewpoint, the open plan of the house gives a sense of spaciousness, yet the split level arrangement of the living and sleeping areas insures privacy where it is needed." This account also includes information about the general contractor, Donald Tait, and sources of the building materials and fixtures.

The Howletts occupied the house until 1960 when it was sold to Pierre du Pont IV. Pierre du Pont lived

here while attending Harvard Law School and contemplated enlarging the house;
however, his plans were never carried out. The house was sold three years later to Mr. and Mrs. Donald Shively, and then in 1965 to Shepard and Evelyn Shapiro. Following the death of Mrs. Shapiro in 1975, the house was sold to current owners Liz and Graham Allison.

The house today complements the neighboring Colonial Revival style homes on Pinehurst Road, and retains its clever relationship to its landscape created by Gropius and Thompson through the use of paving stones in the paths around the house that continue as flooring through the house and the stone and cypress-sided walls that pass through the curtain glass sidewalls of the house, making it difficult to distinguish the exterior elements of the

so the exterior elements of the house from its interior finishes.

Efficient built-in furniture
in the bedrooms and
kitchen original to the
Gropius and Thompson
design also survive
intact, making this a very
comfortable and userfriendly home. Under the
careful stewardship of the

Allisons, the house retains the building fabric and features of its original design. It is an important example of Gropius' residential design philosophy, worthy of preservation for future scholars and devotees of Modern architecture to enjoy.

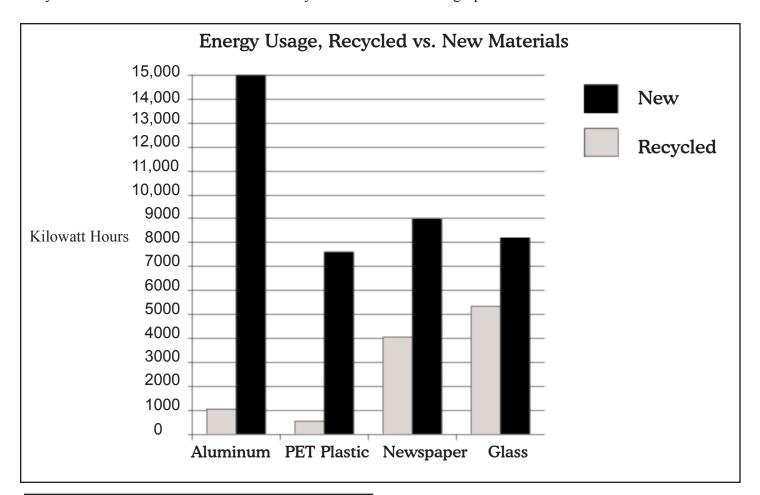
— Joseph Cornish is stewardship manager at Historic New England, formerly the Society for the Preservation of New England Antiquities.

Events continued from page 2

Join Waltham Land Trust board member Lesya Struz and Waltham resident George Gallitano for a talk about Cornelia Warren's farm in Waltham, the Case sisters' Hillcrest Farm in Weston, and the important role both these farms played in their communities. The event will be held at the Waltham Public Library Lecture Hall. For more information, call 781-893-3355 or email kpatters@walthamlandtrust.org.

Correction

In the November 2005 *Belmont Citizens Forum Newsletter*, the Y axis of a graph titled "Energy Usage, Recycled vs. New Materials" was incorrectly labelled. The correct graph is shown below.





Focus on Traffic in Belmont

See a live discussion of Belmont's traffic. Belmont Focus invites calls during the live broadcast at the studio telephone, 617-484-2443. Respond to the show on-line at BELMONT.FOCUS@belmontmedia.org.

Watch Belmont Cable, Channel 8 Wednesday January 25, 8–9 p.m.



Our New Logo

The tree and house decorating the nameplate on the cover of this issue of the Belmont Citizens Forum newsletter are the work of Trey Klein, with advice from the logo committee of Julia Blatt, John Dieckmann, Katharine MacPhail, Evie Malliris, and Sue Bass. Many thanks to Trey for his inspired design and his patience in working out all the details.

Sewers continued from page 20

stopped the water at just the right instant so only the tiniest bit of spray escaped from the far manhole.

What are you doing today?

We are flushing sewer lines. This is routine maintenance. There are some lines that we know from experience need regular cleaning. This is one. The land here is flat, so the sewer must be almost horizontal. Consequently the sewage flow is sluggish. Grease builds up, so we clean it every couple of months.

You guys also plow snow, collect leaves, and repair potholes, and cut grass, right?

The public works department has a bunch of guys and we rotate so everyone learns all the tasks.

Based on my personal experience, most of your sewer work is clearing blockages. What else do you do?

We try to avoid clearing blockages by doing regular, scheduled maintenance. We cut roots out of about 50 lines from individual houses to the sewer in the street on a regular basis. This saves money. We want to avoid emergency calls on Thanksgiving and Saturday night.

What types of sewer pipes do we have in Belmont?

These are clay [ceramic] pipes here. The joints were filled with cement during construction. Belmont's sewers are well built. Very little ground water leaks into the pipes. New sewer lines are made with plastic pipe.

How does the storm water get into our sewers?

People pump it in. In some neighborhoods, Winn Brook is one example, everyone has a sump pump, and too often the sump water gets put into a laundry tub, or into a hole in the sewer access cap. You get dozens of people pumping 50 gallons per hour into



The sewer crew on the day of the BCF interview: from the left, Gino Villa, Matt Digiacomandrea, Charlie Bonanno, and Michael Eccles. Photo courtesy of Sumner Brown.

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	Name	
person who cares about our town.	Address	
I can devote time to:Archaeology & Historic PreservationEnvironmental ProtectionPlanning & Zoning	Phone/E-mail	
Traffic & TransportationMailingsNewsletterWebsite	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.	
I can help pay for this newsletter: It costs over \$4000 to publish each issue of our newsletter. Please donate for this purpose:	Make checks payable to Belmont Citizens Forum and mail to Belmont Citizens Forum, P.O. Box 609, Belmont MA 02478. Thank you!	
\$25 \$50 \$100 \$250	If you have questions, please call (617) 484-1844	

the sewer, and it adds up. It's not nice to say, but people get sewage coming out of their basement plumbing because people are abusing the town's sewers. People are doing it to themselves.

What should be done with sump pump water?

Discharging to back yards is acceptable. Hooking up to the storm drain system is good, but that costs money. I am not sure who pays for that.

How do you find these improper sump pump connections?

We go into people's basements to clear blockages and we notice things. In addition to sump pumps, people drill holes in the sewer clean-out cap so water drains into the sewer. Sometimes the cap is left off completely. We put on good caps and tell the people they cannot do that, but I am sure some of them keep on doing what they should not do.

When you dig, do you ever discover surprises, things that are shown differently on engineering documents?

Yes. Sometimes the pipes are a different size. That is usually not important. Sometimes we find that a house has sewage connected to the storm-drain system instead of the sanitary sewer.

How do you determine that?

We flush a dye tablet from inside the house. Purple water will come out one of two places.

Do you do smoke tests?

The town did smoke tests about five years ago. Smoke tests can only find some problems. They found a lot of down spouts from roof gutters connected to the sanitary sewer. Those have been corrected. That made a big improvement. Belmont's sewer situation is much better than it was a few years ago.

Do you guys like your work?

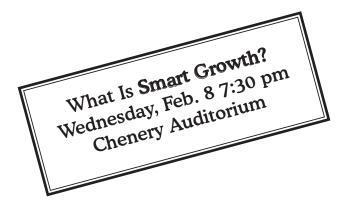
You get used to it... People appreciate what we do... At least when it's cold like this, it does not stink.

—Sumner Brown is a director of the Belmont Citizens Forum.

Belmont Citizens Forum P. O. Box 609 Belmont, MA 02478

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People Are Asking

What Does the Sewer Crew Do?

By Sumner Brown

I caught up with the sewer maintenance crew on the coldest morning of last December, where Maple and Bartlett intersect.

The equipment involves a special orange, block-like vehicle that carries clean water, a pump that pushes water out at 1000 pounds per square inch (psi), and a high pressure hose with a steel nozzle. The nozzle has openings that point backward so that if you held the hose and turned on the water, you would get wet. If you were holding the hose when the water was

turned on at full pressure, the force of the water shooting out would pull the hose from your hand, and the water would severely injure you. The crew manipulates the hose nozzle into a sewer line from an open manhole cover using a rope. Once the hose is pointed in the right direction, the water is turned on, there is a roaring sound, and the high-pressure water pulls the hose into the sewer pipe. The escaping high-pressure water propels the hose the same way escaping gas propels rockets, or an open balloon.

This high-pressure rinse cleans crud off the sewer line. A minute or two later the working end of the hose arrives at the next manhole where another crew member is watching to signal when the nozzle has arrived. As the nozzle approaches, it makes an unfriendly roar. For each sewer line segment, the crew