# Belmont Citizens Forum

Vol. 4, No. 4

A Newsletter for Belmont Residents

**July 2003** 

## Pay-As-You-Throw Trash Collection Debated

By Nancy S. Dorfman

The Belmont Solid Waste and Recycling Committee, after studying the issue for several months at the request of the Board of Selectmen, voted by a 4 to 2 majority on June 19 to support a "Pay As You Throw" (PAYT) program for disposal of household trash.

Under this system, each household would be charged a fee for collection and disposal of its trash, based on the number of containers of trash it discards. Presently, the cost of collection and disposal of all residential solid waste in Belmont is financed with general tax revenues and costs the town about \$3.2 million per year. The recycling committee recommended a fee of \$1.50 or \$2.00 per bag or barrel of trash, which it predicted would cover the cost of trash disposal (but not collection) and would induce households to reduce trash output by about 20 percent, mainly by increasing recycling. There would be no charge to customers for collecting recyclables.

A PAYT program would bring in about \$700,000 in revenue annually to the town through the sale of trash stickers or bags. This money could be used to reduce taxes or to meet some of the town's unfunded needs. And because there would be less trash to dispose of, PAYT would save the town money on incineration costs. When the expense of administering the program is figured in, however, along with the cost of collecting additional recyclables, there would be little if any savings to the town. There would, of course, be a reduction in environmental damages associated with the 20 percent reduction in incineration

In New England, household trash removal traditionally has been funded through general tax revenues. But "Pay As You Throw" is catching on and is now practiced in more than 100 municipalities in Massachusetts, including Worcester, Brockton, Needham, Milton, and Concord.

### The pros and cons of PAYT

The two main purposes of PAYT are (1) to provide an incentive for households to reduce the quanity of trash they discard, thereby reducing the cost of disposal and the burden on the environment of incinerating it, and (2) to more fairly distribute the cost of trash disposal among households while freeing up tax revenues for other purposes.

continued on page 10

#### **Table of Contents**

Environmental Events Calendar2
High Bacteria Counts in Local Brooks 3
ConCom Rejects Uplands Proposal
Dining Out at Rock Meadow
Wild Edibles on Mill Street 15
Why Don't More People Take the Train?20

### **Environmental Events Calendar**

The Green Invasion: Exotic Plants at Fresh **Pond.** Plants can be helpful and pretty, but they can also become a problem if they are invasive. Invasive plants are having an enormous impact on our environment. What can be done to control them? Find out on Saturday, July 19, 1 to 3 p.m. Not only will there be a talk about invasive plants, but you will be able to examine some species that have become invasive at Fresh Pond Reservation. Meet at the Neville Place parking lot, 650 Concord Avenue, Cambridge. This event is free; children are welcome in the company of an adult. If you plan to attend, please register by e-mailing Elizabeth Wylde at friendsoffreshpond@yahoo.com or call Chief Ranger Jean Rogers at (617) 349-4793 and leave your name and phone number.

## **Belmont Citizens Forum Officers and Directors**

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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 You may read this newsletter on-line at www.belmontcitizensforum.org

**Discovering Moths.** Did you know that butterflies and their well-known cousins, the moths, make up the insect order *Lepidoptera*? While there are about 765 species of butterflies worldwide, there are more than 10,000 species of moths. Venture into the night with Hilary Hopkins and Roger Wrubel on **Friday**, **August 8, 8:30 to 10 p.m.** to observe these nightflying creatures. We will use bait and black lights. Meet at the Massachusetts Audubon Habitat Wildlife Sanctuary. Don't forget to bring a flashlight! There is a fee of \$8 if you are not a member, \$6 if you are a member. This program is for families with children aged 8 and above. Register by calling (617) 489-5050.

### Fingerling Fling Canoe Trip on the Mystic River.

What better way to enjoy wildlife than a relaxing canoe trip on the Mystic River? Last year there were sightings of great blue herons, green herons, black-crowned night herons, a family of swans, and lots of other wildlife. Space is limited. Meet at Blessing of the Bay Boathouse, 32 Shore Drive, in the Ten Hills area of Somerville. If it rains, the trip will be canceled. Registration is required by calling (781) 316-3438. Or you may send e-mail to janet@mysticriver.org. **Thursday, August 14, 6 to 8 p.m.** Sponsored by Alewife/MysticRiver Advocates and Mystic River Watershed Association.

Exploring the Meadow. Come explore Habitat's meadows, which are now at their peak, filled with flowers and insects. Join Hilary Hopkins as she leads this series of outdoor programs for adults. You will have the opportunity to examine flowers and learn about their structures and designs, by which they attract pollinators. See how many different kinds of grasses you can find, and do sweep-netting as you search for insects of different families. Catch a glimpse of what a live bee looks like under a microscope. Sunday, August 17, 9 to 11 a.m. There is a fee of \$15 if you are not a member, \$12 if you are a member. Meet at the Massachusetts Audubon Habitat Wildlife Sanctuary. To register, call (617) 489-5050.

**Singing Cicadas.** Have you ever been outside and heard that persistent buzzing sound? Are you curious about what exactly makes that noise? Come

### High Bacteria Counts Found in Local Brooks

By Libby Larson

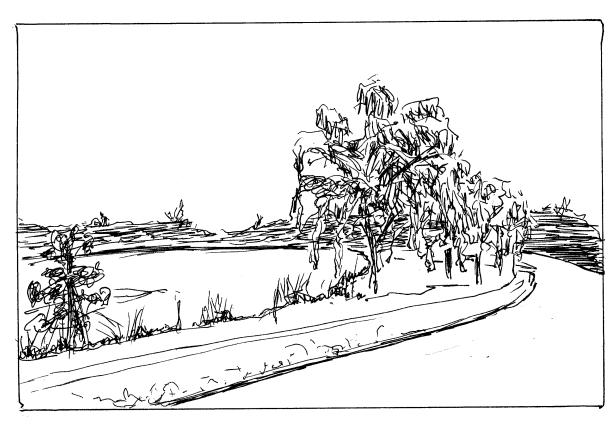
Leaky sewers and storm drains in and around Belmont are polluting neighborhood brooks and ponds, according to data collected by the Mystic River Watershed Association. The association has been monitoring water quality at 24 spots along Winn's, Wellington, and Alewife Brooks, and at Little Pond. Volunteers collect samples, which are analyzed at the Massachusetts Water Resources Authority (MWRA) Laboratory on Deer Island or at the federal EPA laboratory in Chelmsford. The results are then reported to Belmont's town engineers and to the Massachusetts Department of Environmental Protection.

According to the state's surface water quality standard, every body of water in the Mystic River watershed is supposed to have fewer than 200 cfu

(colony forming units) of bacteria per 100 milliliters of water. Every sampling location in the watershed has violated this standard at least once, and Winn's Brook in Belmont has been in violation approximately 75 percent of the time. The highest result was 17,300 cfu/100 ml, recorded on May 22, 2001.

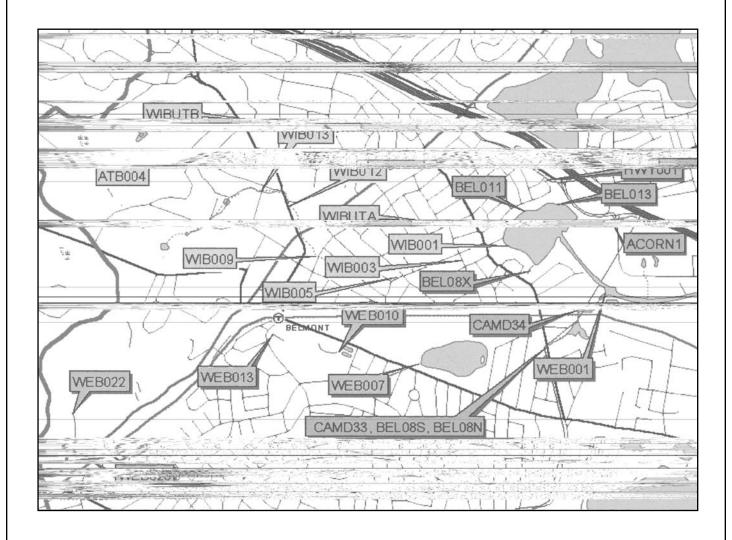
Along Wellington Brook in December 2001, readings ranged from 65 cfu/100 ml in Clay Pit Pond to 65,000 cfu/100 ml at Common Street.

Contamination with sewage is usually the cause of such high bacterial results. In an old and densely developed urban area such as ours, sewer pipes and storm drains lie close together, may share a manhole, and are often leaky. This means that untreated sewage can easily mix with storm water. The force of gravity alone is sometimes enough to cause leaking and mixing, but heavy rains exacerbate the



Clay Pet Pond

## Water Sampling Sites in Belmont



In December 2001, water samples collected at various points along Wellington Brook by the Mystic River Watershed Association had bacteria counts ranging from 65 colony-forming units (cfu) per 100 milliliters of water in Clay Pit Pond (WEB007) to 65,000 cfu/100 ml at Common Street (WEB013). Seventy-eight percent of the samples violated the Massachusetts surface water quality standard of 200 cfu/100 ml. In March 2002, water samples taken along Winn's Brook ranged from 0 to 1,900 cfu/100 ml, the latter at WIB005 (Winn's Brook on the north side of Sherman Street). Four of the samples violated state standards. Repeated monitoring around Alewife Brook has shown that BEL013, BEL011, CAMD33, and BEL08N have very high bacterial counts, especially during wet weather. In June 2002, BEL011 had more than 200,000 cfu/100 ml. Since that date, the Town of Belmont has done some repair to the sewer and storm lines in that area, but recent results from April 2003 still show bacteria levels of 4,700 cfu/100 ml.

#### Bacteria Count in Brooks, continued from page 3

problem. During a storm, rainwater added to the system can cause the pipes to "surcharge," i.e. become so full that the pipes pressurize and the fluid inside seeks an outlet through any crack or hole available. If the sewer line surcharges, untreated sewage may percolate up to the ground surface or infiltrate into a nearby storm water pipe. These storm water pipes discharge directly into nearby bodies of water. In addition, some buildings are directly and illicitly connected to the storm drain rather than the sewer line. In either of these cases, untreated sewage makes its way into the brooks, ponds, and rivers of our watershed. According to the Federal Clean Water Act, states and municipalities are responsible for eliminating sewage contamination to these waterways.

Little Pond has had very high bacterial counts in recent years, especially during wet weather. At one point in June 2002, it measured more than 200,000 cfu/100 ml. Since that date, the Town of Belmont has done some repair to the sewer and storm lines in that area, and readings dropped to 4,700 cfu/100 ml in April 2003. This figure is still high, however, when compared with the state standard.

### Evidence of broken pipes

Based on readings at various "hot spots" in Belmont, the Mystic River Watershed Association believes that each time either Wellington or Winn's Brook goes underground (through a culvert), sewage water from broken or leaky pipes is added to the brooks. This would explain why bacterial counts are so much higher at the outfall end of the culvert than at the intake point. In cold weather, exposure to the open air probably kills the bacteria as it moves downstream, so results tend to be lower where the brook has been above ground for some time. Ponds tend to have lower levels because the bacteria settle to the bottom. However, bacteria continue to live on the bottom, and when the sediments are disturbed (by a canoe paddle or a heavy rain), these bacteria can be reintroduced to the surface water.

Bill Pisano, a member of the Tri-Community Working Group, which is composed of representatives from Cambridge, Belmont, and Arlington, is one of several people examining flooding problems in the Alewife sub-watershed (which includes Wellington and Winn's Brooks). This group, along with engineers and consultants for the three municipalities, has been working on identification and remediation of surface flooding and problematic sewer surcharge conditions in the three communities.

### Leaky pipes near Cambridge reservoir

One such project deals with leaky storm drain pipes conveying contaminated storm water through the Fresh Pond area. Pisano has focused on one large storm water trunk pipe (between 66" and 78" in diameter) that drains 363 acres of Belmont and 57 acres of Cambridge. The Belmont subcatchment draining to this pipe starts at the eastern edge of Payson Park and extends east to Grove Street and south to Belmont Street. The small Cambridge area contributing to this pipe lies between Belmont Street and Huron Avenue.

The outlet pipe draining both areas lies beneath the Thomas P. O'Neill Jr. Golf Course within the Fresh Pond Reservation. In addition to causing a continued on page 6



### Bacteria Count in Brooks, continued from page 5

potential health (and water) hazard for golfers, this is very close to the Fresh Pond Reservoir, a drinking water source for the City of Cambridge.

This trunk drain starts near 700 Huron Towers and proceeds north through the golf course, passing under Concord Avenue and down Blanchard Road, where it discharges into Wellington Brook and ultimately Blair Pond. The pipe is actually exposed above ground in several places within the golf course and discharges into the brook near Hittinger Street. Near Hittinger, this trunk pipe is joined by two 66-inch-diameter outlet pipes discharging excess water from Clay Pit Pond. Nearly 950 acres of Belmont, including much of Belmont Hill, drains into the upper reaches of Wellington Brook and discharges into the western edge of Clay Pit.

### Fountains of storm water on golf course

Currently, this pipe does not have the capacity to handle anything greater than a one-year storm (that is, a storm that has a 99% chance of being exceeded, in terms of total rainfall, in any given year) without surcharging excess stormwater. When the pipe's capacity is exceeded, the pipe surcharges like a water main; stormwater literally fountains out of the joints several feet into the air in an area of the golf course near Little Fresh Pond. Surface flooding

# Water Quality Monitors Wanted

If you are interested in collecting water samples periodically from Belmont waterways for the Mystic River Watershed Association, please contact Julie Horowitz, Director of the Mystic Monitoring Network. She can be reached at <a href="mailto:julie@mysticriver.org">julie@mysticriver.org</a> or 781-316-3438. The next training session is Monday, July 28, at 7 p.m.

occurs frequently.

"Solving the problems of this dysfunctional 66inch drain is far from straightforward," Pisano has written. "Simply removing the obstructions and tree roots and patching the joints will not ensure long term integrity of this conduit. Reapplying the intense hydraulic fluid pressure without any relief will only result in future failures." One solution is to line the interior of this drain with a structural liner and to bolt down the manhole lids so that the drain acts a pressure pipe. These actions would eliminate flooding from this leaky drain within the Fresh Pond Reservation, but would increase the peak flow through this pipe. To offset this increased flow to Wellington Brook, the peak flow from the Clay Pit drain discharging at the same location would have to be decreased. Under this scenario. the water level in Clay Pit Pond would be lowered several feet before a major rain event by discharging water into a new pipe that leads to Blair Pond. This way, peak storm flow from Clay Pit Pond would be lessened, but total flows from both catchments to Blair Pond would remain the same.

For more information on the Tri-Community Group and its plans for this project, please contact Bill Pisano at <a href="William.C.Pisano@us.mwhglobal.com">William.C.Pisano@us.mwhglobal.com</a>. The group's next meetings, which are open to the public, are scheduled for Tuesday, July 22 and Tuesday, September 9 at 6:30 p.m. in the Selectmen's Conference Room on the second floor of Arlington Town Hall.

Meanwhile, the Belmont Board of Selectmen is holding a public hearing on Monday, August 4, at 7:45 p.m. during its regularly scheduled meeting at Belmont Town Hall to hear comments on the town's five-year plan for stormwater management. The plan will be available for review by July 21 at the Town Clerk's Office, the Belmont Memorial Library, and on the town's website (www.town.belmont.ma.us).

Libby Larson is the former Mystic Monitoring Network Coordinator for the Mystic River Watershed Association. Bill Pisano is a Town Meeting Member from Precinct 7 in Belmont and Vice President of Montgomery Watson Harza, consultants to the City of Cambridge. This article is based on a presentation given to the Friends of the Belmont Citizens Forum in June.

## ConCom Rejects O'Neill Uplands Development

By Sue Bass

The Belmont Conservation Commission dealt a major blow to O'Neill Properties' plans to build a 245,000-square-foot office or R&D complex on Acorn Park Drive at Alewife last month by unanimously rejecting O'Neill's application to proceed with the work. O'Neill had filed the request, called a "Notice of Intent," despite having told the Selectmen and Belmont Town Meeting that it does not intend to build the office/R&D project.

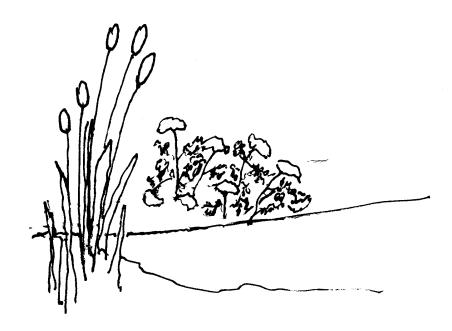
The true intent of the filing was apparently to keep in effect wetlands and flood plain boundaries that the Conservation Commission had accepted three years ago and prevent the commission from reconsidering those boundaries in light of new information. The ConCom's action means that the old map delineating the wetlands and flood-plain lines expired on June 27. Before O'Neill could build anything on its property, the developer would have to submit a new request to the ConCom to determine what the correct wetland and flood-plain boundaries are.

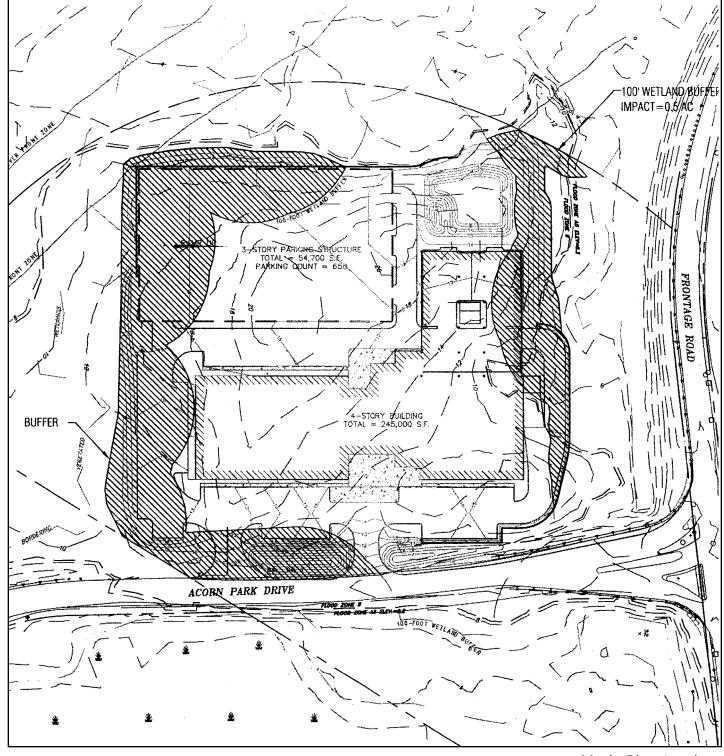
Although the property is referred to as the "Belmont Uplands" because it includes a hillock, about half of the 15.6-acre O'Neill parcel is wetlands and more than half is below the 100-foot flood-plain

line, now set at 8.2 feet above sea level. Only the very top of the hillock is as much as 20 feet above sea level. Virtually all of the dry land – and some that's not so dry – would be filled by either the office/R&D development and the housing complex O'Neill would now prefer to build.

If a new wetlands delineation found more land to be wetland, the development O'Neill hopes for could be impossible. On a site visit in May, members of the ConCom and observers noticed considerable springiness in the ground outside the wetland boundaries. However, experts caution that examination of soil core samples would be necessary to ascertain whether additional land should be classified as wetlands.

Even under the old boundaries, about a quarter of the project would have been located in 100-foot buffer zones designed to prevent encroachment on wetlands. Though construction in wetland buffer zones is not prohibited by state law, it is not automatically allowed either. Several of the two dozen concerned citizens who attended the ConCom hearing on June 3 noted that O'Neill presented no justification for why it should be allowed to cover more than two acres of wetlands buffer zone with its parking garage continued on page 8





Map by Rizzo Associates

**Proposed Development at the Belmont Uplands.** Town Meeting approved a proposal from O'Neill Properties in 2002 to build a research and development complex on this parcel of land near the intersection of Lake Street and Route 2. This map shows how the proposed construction would sit relative to wetlands buffer zones (the area marked with slanted lines). O'Neill told the Belmont Board of Selectmen this spring that it no longer wishes to build this complex because the market for commercial office space has taken a downturn. However, the company came before the Belmont Conservation Commission in June 2003, hoping to secure approval to proceed with the complex anyway. Such approval would have made it possible for the company to develop new plans for a condominium project on the site without having to reassess flood-plain boundaries. The application was denied.

### O'Neill Development, continued from page 7

and driveway. In rejecting O'Neill's application, the ConCom expressed concern about the "impact of the percentage of the project located in the buffer zone."

Several members of the ConCom said they would like to have independent advice from wetlands experts if the O'Neill proposal is raised again. In 2000, when the ConCom last considered the wetlands and flood-plain boundaries, its only technical advice (other than the knowledge of individual members) came from experts hired by the developer.

In ruling that O'Neill's recent application was incomplete, the ConCom also cited the developer's failure to include detailed information about proposed highway work and where the project would connect to Belmont's sewer lines; and also O'Neill's failure to obtain or apply for site plan approval and permits for sewer connections and other utilities.

Steve Corridan, a representative of O'Neill Properties, said the developer was considering its options and would meet with the Selectmen for their advice soon. Conservationists have urged that the developer donate the land as an addition to the

MDC's adjoining Alewife Reservation or that O'Neill trade its development rights to another parcel. Studies have shown that many of the birds and mammals that live in the Reservation need that small bit of uplands – about seven or eight acres – for rearing young, retreating from predators, and other activities that allow them to survive.

Meanwhile, the Belmont Planning Board has been considering a request from O'Neill to rezone the Uplands to allow the developer the option to build 188 one- and two-bedroom condominium units instead of the office/R&D complex, for which there is currently no market. The next hearing on the condo proposal is July 29.

Asked about the "No Trespassing" signs that have appeared recently on the Uplands property, Corridan said they were posted at the advice of Belmont police to allow the police to remove homeless people camping out there. He said O'Neill Properties will continue to allow anyone to walk the land.

Sue Bass is a Town Meeting Member representing Precinct 3.



A community path runs to the Alewife MBTA station on the other side of Little River from the O'Neill property.

## Charging by the Barrel for Trash Pickup Would

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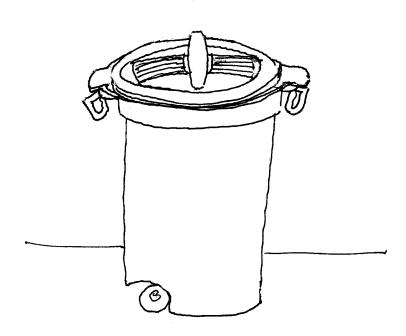
PAYT achieves these goals by realigning the way that households are charged for trash removal to correspond more closely with the cost of the service each consumes. It is based on a user charge similar to those consumers pay for water, electricity, telephone, and other public utilities, as well as for most of the other services they consume. Here are some of the advantages of this system:

Reduced trash and increased recycling. There is compelling evidence in Massachusetts communities that PAYT programs reduce the quantity of trash by an average of about 20 percent, within a range of 15 to 30 percent. This reduction is achieved mainly through increased recycling. In Belmont, that would amount to shipping about 2,000 fewer tons per year to the NESWC incinerator. While reducing the environmental burden, that would also lead to a gross saving of about \$125,000 in disposal costs in 2005. This saving would be offset by a roughly \$55,000 increase in the cost of recycling and an additional \$95,000 for administration of the program and for public education. The head of Belmont's Public Works Department, Peter Castanino, says that

a full-time coordinator would have to be hired. This person would not only administer the current household waste management program, but could assume other responsibilities for which there is now no staffing, such as managing and promoting a household hazardous waste program, developing a recycling program in the schools, overseeing recycling at town offices and at public sites like Town Field and Rock Meadow, communicating with the public, and assisting the town in purchasing products made from recycled materials.

Reduced demand on tax base. Income from the sale of trash stickers (between \$700,000 and \$1,000,000 annually) could be used to fund other town services or to reduce taxes. Budget constraints seem to be the main motivation for towns to switch to PAYT.

Fairer distribution of cost. Under the present taxbased system, what a household pays bears no relation to the quantity of trash it discards. At the same time, households with relatively low trash output or high property taxes contribute more per unit of trash to the cost of its removal than do other households, in effect creating a subsidy between households. Unlike education, highways, and other public goods



### Encourage Recycling and Lower Disposal Costs

whose benefits cannot be allocated to particular individuals, most of the benefits, as well as the costs, of trash collection can be assigned to individual households, eliminating justification for this kind of a subsidy. PAYT, by charging everyone the same price per unit, erases the "inequity" while providing an incentive for everyone to minimize trash output. Although the average annual per-household-cost to the town of collection and disposal will remain at about \$325 with or without PAYT (at least until a new incineration contract goes into effect later in the decade), the burden will be distributed differently among households.

More pros. PAYT can be expected to save the town money by discouraging the disposal of construction debris and other such materials at curb side, make the town more attractive by assuring that all trash is placed in containers on pick-up day, raise people's awareness of the significant costs associated with their waste generation, and pay for a much-needed full-time coordinator of Belmont's waste disposal and recycling program.

There are, of course, disadvantages to PAYT. Here are a few:

Requires use of stickers or special bags. A PAYT program is more trouble for consumers because they must purchase special stickers and bags and occasionally try to stuff odd-sized objects into them. It is also more complicated and costly for the town to administer (although no more so than electricity or water billing.)

*Not tax-deductible.* Unlike property taxes, payments for trash removal cannot be deducted from personal income taxes.

Fear of illegal disposal. Some fear that implementing a PAYT program could lead to an increase in "midnight dumping," but there is scant evidence of an increase in illegal dumping in PAYT communities in the state, according to the DEP, the EPA, and waste managers in Concord and Lexington.

Impact on low-income households. It could increase the financial burden on some lower-income households compared to the present tax-based system in which costs are distributed in proportion to property valuation.

A hidden tax? Some residents may regard the perbag or barrel charge as a new "tax."

### **Options for implementation**

In crafting its recommendations to the Board of Selectmen, the Solid Waste and Recycling Committee chose among a number of options for implementing the program, all of which remain under discussion.

How many bags to charge for. Some communities allow every household to put out one bag or barrel per week, or some number per year, free of charge. This option was considered and rejected by the committee because it would generate almost no revenue and have almost no impact on trash disposal habits since the average quantity of trash per household is now only about 1.2 bags per week. The Board of Selectmen may reconsider this, however.

Which costs to charge for. How much of the total cost should be included in the charges for trash removal and how much financed by general taxes? The committee recommended continuing to finance the so-called fixed cost of collection (which does not vary directly with the quantity) out of general revenues and billing the variable cost of disposal at the incinerator to individual households. Disposal costs in 2005 with PAYT are projected to be about \$1.7 million compared with collection costs for trash alone of about \$0.9 million. In addition, the committee recommended a \$15 fee for picking up white goods but no charge for other oversize items.

What about cardboard? Some bulky items like cardboard boxes will cost households more to dispose of than other trash of comparable weight that can fit easily into bags. Although cardboard is recyclable, the current contractor wants an extra \$20,000 a year to collect it in the recycling truck because of its awkward size and shape. The committee did not

recommend this option, but considering the possible reduction in disposal costs from recycling cardboard, Belmont might want to reexamine it.

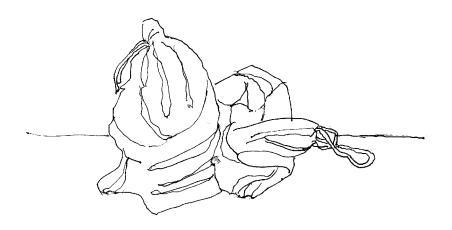
After reviewing the recycling committee's report on June 30, the Board of Selectmen asked its members to produce a detailed plan for promoting public discussion and education and for ascertaining the public's views on a PAYT system for Belmont. The selectmen agreed that no such plan would be

initiated without the approval of Town Meeting and a town-wide referendum.

If you have questions about PAYT, Ken Siskind, chairman of the Belmont Recycling Committee will be happy to answer them. He can be reached at <a href="mailto:kensiskind@attglobal.net">kensiskind@attglobal.net</a>

Nancy Dorfman is an economist who lives in Belmont.

### The economics of PAYT in Belmont



<b>Projected Costs to Belmont FY 2005</b>	W/O PAYT	W/ PAYT
Trash disposal at NESWC Collection	\$1,815,452	\$1,690,792
Trash	899,040	899,040
Recycling	322,920	377,920
Yard waste	274,920	274,920
Total Collection & Disposal	3,312,332	3,242,672
PAYT Administration/Education		95,000
Total costs	<u>3,312,332</u>	3,336,672
Incremental cost of PAYT		25,340
Revenue from sale of tags	(If each bag costs \$1.50)	
	(If each bag costs \$2.00)	990,000

For some people, Belmont's Rock Meadow is an ideal place to watch birds or walk dogs. For others, like naturalist Russ Cohen, it is a great place to go out to eat.

Within one hundred yards of the meadow's Mill Street parking area, Cohen has identified at least 46 different wild edible plants, some of which can be eaten raw and others of which can be boiled, steamed, fried, or mixed into salads. He says that wild edibles enthusiasts have been foraging at Rock Meadow for

at least three decades, and he would like to see the practice continue.

"You don't want to hurt a plant's ability to survive, but often you can pick the seeds of a native plant like jewel weed without damaging its long-term viability," he said on a recent tour of this 70-acre conservation area. Most fruits and nuts, which he described as "merely seed dispersal devices," can also be harvested without harming the plants' ability to thrive at that location.

Some of the plants he eats regularly, like burdock, are considered weeds.

"Nobody much minds if you pull these up," he said. Burdock, which gets its name from the burrs that stick to your socks in the fall, is a large-leafed relative of the artichoke. Its root and rounded stalk taste similar to artichoke hearts. "These roots sell at Bread and Circus for about \$6 a pound," he remarked. Burdock is a biennial, which means it has a two-year lifespan. During the spring of the second year, the plant produces flower stalks that can be peeled, sliced, and boiled or mixed with mayonnaise and parmesan cheese and baked to make a chip dip.

Stinging nettle, another nuisance plant, is "the closest thing I know of to a vitamin pill in the plant world," said Cohen. Steaming the tender cluster of leaves from the top of the young plant completely disarms the plant, and the chemical responsible for the sting turns to protein. "Steamed nettle greens have

a protein content of about seven percent, among the highest of any leafy green vegetable."

Other Rock Meadow plants can be used to make beverages. Cleavers seeds and chicory roots can be roasted and brewed like coffee. Staghorn sumac berries, which appear in late summer, make a delicious, lemonade-like drink.

The bulbs of wild garlic taste good on top of a pizza. Cattail pollen can be mixed with flour to make pancakes. And the root of the horseradish plant can be grated into a spicy sauce for hot dogs. Mulberries and black raspberries, which abound at Rock

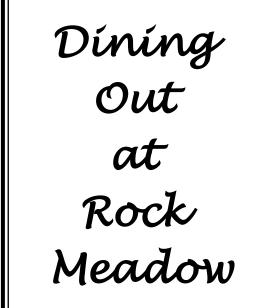
Meadow, are delicious when ripe, black, and juicy. "There's more than enough fruit here for people and wildlife to share," said Cohen.

When leading plant walks for the New England Wildflower Society or the Massachusetts Audubon Society, Cohen recommends that foragers follow three rules: (1) Don't pick anything that you suspect has been sprayed recently, (2) Don't eat anything from a polluted area, such as the land bordering a heavily traveled roadway, and (3) Don't pick the stalks or dig the roots of native plant species in what appears to be a small stand

because overharvesting could extirpate the plant (i.e. wipe it out in that particular location).

The Belmont Conservation Commission is currently wrestling with the wording of a new set of rules that would more tightly restrict the use of Rock Meadow. As written, these rules would make it illegal to "remove, cut or damage any flowers, plants, shrubs, trees, soil, water, artifacts, or rocks on conservation lands, including without limitation . . . any digging or excavation on conservation lands." Cohen believes that this language, though well-intentioned, is misguided.

"I call it the 'velvet-rope' school of environmentalism," said Cohen, "in which nature is treated like a museum. You can look but you can't touch." He'd like to see people develop a more interactive relationship with the natural world. *continued* 



### Rock Meadow, continued from page 13

"This is how people ate for thousands of years—by foraging for food. As late as the 1940s, children still played in the woods every day and ate many kinds of wild plants. But we've lost that connection to the land. Today, kids play video games and get nearly all their food from a supermarket. Foraging reconnects you to seasonal rhythms and helps you understand the habitat better."

"Although a few of the edible wild plant species at Rock Meadow are uncommon native species that should be harvested only sparingly (if at all)," Cohen wrote later, "most are common weeds and invasives that most ecologists would be thrilled to see removed. Unfortunately, the way that the proposed Rock Meadow rules are currently worded, someone could be fined for digging up a dandelion or other weed

next to the parking lot or a community garden plot. I am hoping these proposed rules can be modified to allow ecologically responsible foraging to continue."

Conservation Commission Chair Michael Flamang said that a draft of the ConCom's new rules for Rock Meadow can be found on the town's website (visit <a href="www.town.belmont.ma.us">www.town.belmont.ma.us</a> and then click on Forms and Documents). These rules will be discussed in detail by the commission at its regularly scheduled meetings this fall and, once finalized, will be enforced by the town's police department and animal control officer as stipulated in a new bylaw passed by Town Meeting this spring. Questions may be directed to Michael Flamang at <a href="mailto:flamangm@aol.com">flamangm@aol.com</a>

If you are interested in learning more about edible wild plants and mushrooms and how to cook them, you may visit Russ Cohen's website: <a href="http://users.rcn.com/eatwild/sched.htm">http://users.rcn.com/eatwild/sched.htm</a>



Wild Black Raspberry

### Wild Edibles on Mill Street

You will find all of these within a short walk of the Rock Meadow parking area.

Burdock. A large-leafed relative of the artichoke. You can dig up the root of this non-native biennial with a shovel and use it as you would an artichoke heart. The top part of the flower stalks (not the woody bottoms) can be peeled, sliced cross-wise, and boiled for four to five minutes in salted water. You can also mix these into dips.

*Black Raspberry*. This thorny plant produces ripe berries at the end of June or in early July. Harvest them when they are dark black. You can eat them raw or use them to make pies or preserves.

Chicory. This plant is a wild version of endive. Its young leaves can be harvested and eaten in early spring and late fall. Use its blue flowers to decorate salads. The root, which can be pulled up by hand any time of year, tastes great roasted, ground up in a coffee grinder, and brewed as a hot drink. It tastes like coffee but contains no caffeine.

*Cleavers*. This plant is easy to spot because it sticks to your shirt like Velcro. It is in the same botanical family as coffee and its seeds can be roasted and brewed like coffee beans.

Dame's rocket. This invasive wild mustard produces a four-petaled purple flower in late May and early June. Pop the flower right in your mouth; it has the flavor and nutritive value of a radish. It looks great on top of a salad.

Elderberry. The fruit of this plant ripens to a purplish black in late August. You cannot eat it raw, but you can cook it or dry it in a plant dehydrator or under a screen in your attic. The dried berries will keep for a long time in a glass jar. Some people think they are too aromatic to enjoy by themselves, but elderberry fruit tastes good when mixed with apples in pies or sauces.

Evening primrose. Grate up the root of this biennial plant between its first and second growing seasons

and use it to make pancakes that look and taste just like potato pancakes. You can identify its leaves by the prominent pink midrib.

Ground cherry. This plant, sometimes called husk tomato or strawberry tomato, resembles a tomato plant and produces a fruit that is between 3/8 and 1/2 of an inch in diameter. It tastes like a sweet tomato and grows inside a papery husk. (There are poisonous look-alike fruits, but they do not grow inside a husk.)

Horseradish. This plant is usually an escapee from a cultivated garden and, once established, can be hard to get rid of. It has large leaves with wavy leaf margins (edges) with rounded teeth. Pull it up and grate the root to make horseradish sauce. You can also munch on its young leaves, either raw or cooked.

\*Japanese knotweed. This plant is the near the top of the invasive species list and is difficult to eradicate. Feel free to eat the tender shoots in spring as you would asparagus or the peeled older shoots as you would rhubarb, but stay away from anything that looks like it has been sprayed.

\*Jerusalem artichoke. This sunflower relative stores food in tubers over the winter. You can harvest these tubers, which can grow as big as a fat knobby cigar, between October and April. Throw the smaller tubers back into the dirt so the plant will continue to thrive at that location.

Jewel weed. This native plant likes shady, wet spots. It is sometimes called "touch-me-not" because when you brush against the ripe seed pods, they explode. The tiny football-shaped seeds inside taste like walnuts and are fun for kids to eat. The inside of the seed is a remarkable robins-egg blue color.

Lambs quarters. This spinach relative contains more vitamins than spinach and, by no coincidence, is sometimes called wild spinach. You can identify it by its dusty center. It can be steamed, put in salads, or substituted for spinach in spanikopita recipes.

\*Recipes for these plants are available on Russ Cohen's web page.

#### Wild Edibles, continued from page 16

\*Milkweed. This native perennial is annoying to farmers because it makes poor livestock forage and interferes with cultivated crops. Its seed pods taste like green beans and its broccoli-like flowers can be boiled and served as a side dish. Its leaves are a favorite food of the monarch butterfly. Look for the orange poppy-seed-like butterfly eggs on the underside of the leaves and do not disturb them. The caterpillars that hatch from these eggs are green, yellow, black, and white striped.

*Mulberry*. Birds love the sweet berries from this tree and you can enjoy them too if you wait until they are purply-black and slightly underripe. Eat them raw or

use them in preserves, pies, or fruit drinks.

*Peppergrass*. The flat round seed pods of this common weed taste like watercress. It has a long season and you can find it into the fall. Add it to salads for a peppery zing.

\*Pokeweed. This native plant is considered by many people to be a weed. You may eat its young (6" to 10" tall) shoots in spring, but the remainder of the plant is poisonous. Boil the shoots for seven minutes and then serve them any way you would asparagus. The big juicy purple pokeweed berries, although not good for eating, were used by Native Americans to make dyes and were a favorite food of the now extinct passenger pigeon.



*Purslane*. This pops up in and around cultivated gardens once the hot weather arrives and is high in iron and omega-3 fatty acids. You may eat it raw, put it in salads, or use it in gazpacho-style soups. You can also wilt the leaves in bacon grease for a tasty side dish.

*Salsify.* This plant develops a giant blowball, like that of a dandelion. Its leaves are grass-like and edible. You can also consume the root, which has an oyster-like flavor.

\*Staghorn sumac. This plant was named for its fuzzy stalk, which feels like young deer antler velvets. You can eat the peeled young twigs raw and dice them for salads. The berries ripen in late summer and can be used to make a delicious lemonade-like beverage.

\*Stinging nettle. This perennial loves the rich soil of former farmland or compost piles. It is very nutritious. You can pick the tender tops (with gloves on to avoid getting stung) and steam them to get a delicious and highly nutritious vegetable.

Wild lettuce. Picked in the spring, the variety with skinny terminal lobes on its leaves (looking like a long finger) is just about as mild and tasty as any lettuce you can buy at the market or grow at home.

Wild onion and garlic. These plants are not native but can be found in abundance in some places at Rock Meadow. Sauté the bottom or top bulb of the garlic and put it on pizza.

*Wood sorrel*. This plant is often confused with clover, but its leaflets are heart-shaped, whereas clover leaflets are oval-shaped. These can be sprinkled into salads, but they are very tart, so use them sparingly.

The comestible qualities of these wild plants, plus many others, are described in more detail on Russ Cohen's web page: <a href="http://users.rcn.com/eatwild/toc.htm">http://users.rcn.com/eatwild/toc.htm</a>
Cohen is a wild foods enthusiast who has led edible plant walks for three decades. He is employed by the Riverways Program of the Massachusetts Department of Fisheries, Wildlife and Environmental Law Enforcement and is a resident of Arlington.

### **Environmental Events Calendar,** from page 2

keep Fran Hutchinson and Roger Wrubel company as they describe cicadas and their fascinating life story. The program will take you outside to look for cicadas and other insect noise-makers such as grasshoppers and crickets. **Wednesday, August 20, 6 to 7:30 p.m.** There is a fee of \$8 for non-members, \$6 for members. This program is for families with children aged 5 to 12. Meet at the Massachusetts Audubon Habitat Wildlife Sanctuary. To register, call (617) 489-5050.

Rock Meadow Trail Maintenance Day. Join members of the New England Mountain Bike Association on Saturday, September 20, 9 a.m. to 1 p.m. for Rock Meadow trail maintenance day. Tools and lunch will be provided. Meet at the parking lot off of Mill Street. For information, call Dave Kleinschmidt at (508) 653-3382.

-Stacey Fabiano

### Newsletter Editor Wanted

The Belmont Citizens Forum is seeking a replacement for its newsletter editor, who regrettably is leaving after four years to pursue other projects. This is a paid, parttime position responsible for all aspects of this bi-monthly newsletter, including researching and writing articles, assigning and editing articles by volunteers, design, layout, and production supervision. Knowledge of Belmont and experience with desktop publishing are desirable. Applications, including three writing samples, should be submitted to Belmont Citizens Forum, PO Box 609, Belmont, MA 02478.

#### Train Commuting, continued from page 20

You can take Bus #74 from Belmont Center down Concord Avenue to Harvard Square and get on the Red Line there, but if you miss your connection coming home, you could have a 20- to 40-minute wait in the subterranean and unheated Harvard Square bus depot.

You can hop on Bus #78, which originates in Arlington and travels down Brighton Street every 17 minutes in rush hour.

Or you can take Bus #73 from Waverley Square to Harvard Square via Trapelo Road, Belmont Street, and Mount Auburn Street. This bus runs more frequently (every 10 or 15 minutes all day long) and, perhaps because of this, is the twelfth most heavily traveled bus route in the Metropolitan Boston Transportation Authority (MBTA) system. The #73 probably carries the majority of those 1100

people who get to work via bus or subway.

Of course, it is also possible to ride a bicycle to the city, but—let's face it—most roads aren't designed for cyclists, and it takes a hardy soul to bike during a New England winter or in a thunderstorm. Still, 1.5 percent of Belmontians are using what the U.S. Census calls "other means of transportation" to get to work, presumably a bicycle. This would indicate that more people are biking to work than taking the train.

What would it take to get more than one percent of us to take the train to work?

We could start by providing enclosed waiting areas so you don't freeze in the winter winds or get wet when it rains. It would also be nice to have a place to sit down while you wait. How about a spot to park if you are unable to walk to the station? Or how about simply posting the train schedules at the stations? (In fact, how about a sign indicating



# We need you.

If you can volunteer even a few hours a month, you can				Name		
make a difference. You do not need to be an expert—just a person who cares about our town.				Address		
l can devote						
Archaeology & Historic Preservation Environmental Protection				Phone/E-mail		
Planning & Zoning						
Traffic & Transportation						
Mailings Newsletter Website				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. If you have		
I can help 1	pay for this	s newslette	er:	questions, please call (617) 484-1844.		
It costs about \$3500 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,		
\$25	\$50	\$100	\$250	Belmont MA 02478. Thank you!		

where the stations are? The below-grade Waverley station is nearly invisible.) To encourage the use of both the commuter rail and the Red Line, how about initiating a shuttle bus service directly to Alewife Station that would stop en route at the Belmont Center and Waverley Square commuter rail stations?

Parking is one of the biggest and most controversial issues. Retailers in Belmont Center and Waverley Square are reluctant to cede all-day parking spots to commuters, and neighborhood residents are reluctant to have "strangers" parking in front of their houses all day long. But for many commuters, the lack of dependable parking means they are going to drive to Boston instead of taking the train.

At an exhibit entitled *Investigations of Trapelo Road* at the MacPhail Gallery in June, a student from the Boston Architectural Center proposed putting a parking garage over the train tracks in Waverley Square. The MBTA might be persuaded to build such a garage. Or if the town built it, there could be spots reserved for Belmont residents who purchased parking stickers and higher fees charged to non-residents who wished to park there. This might relieve some of the parking congestion on residential streets in the Waverley area.

The Belmont Center Parking Committee, which

is studying ways to expand parking in the center of town, recently voted to rank commuters third in priority after retail customers and employees working in that business district. The town deliberately pushed back the starting time for purchasing daily parking passes in the Belmont Center municipal lot to 8:30 a.m.—after the last rush-hour train departs. This change exasperated commuters who once depended upon these paid parking places.

Belmont's Vision 21 Implementation
Committee intends to undertake a study of how
Belmont could become "a more environmentally
responsible community." Making it easier for
Belmont residents to use public transportation
should be high on the list of issues to consider.
Much of the traffic on Belmont's streets is generated
by residents of the town. Less vehicular traffic
would mean less pollution, less noise, less energy
wasted, and a better and safer environment for
pedestrians and bicyclists. In short, if a lot more
Belmont commuters used public transportation—
particularly the commuter rail—Belmont would be a
more pleasant place to live.

Jim Graves is president of the Belmont Citizens Forum and a Belmont Town Meeting Member.

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

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### People Are Asking

# Why Don't More People Take the Train?

By Jim Graves

Many of Belmont's residents moved here so they would have an easy commute to jobs in downtown Boston or Cambridge. Although Belmont is only two miles across, it has *two* railway stations. The majority of our residents are within a half-mile walk or drive of a station. These trains reach North Station in 18 minutes from Waverley Square and 16 minutes from Belmont Center, and they are usually on time. Thirteen trains go each way every weekday, with three of them in the morning rush hour and two in the evening.

You might guess that at least 500 people from Belmont would commute by train into Boston every day—right? That would be four percent of the

approximately 12,700 Belmont residents with salaried jobs. But the MBTA says that only 95 people board Boston-bound trains in Belmont between 7 a.m. and 8:30 a.m., and since some of these folks come from adjoining communities, that means fewer than one percent of Belmont commuters are taking the train.

According to statistics gathered in the 2000 U. S. Census, 70 percent of Belmont workers commute alone in a vehicle, 10 percent carpool, 5 percent work at home, 1.5 percent walk, and 12 percent use public transportation.

After you subtract the small number of train riders from this last figure, you are left with more than 11 percent, or about 1100 people, commuting via bus or subway. There are four ways to do that.

You can drive to the Red Line subway station at Alewife, but you'd better get there early. The parking garage fills up quickly on weekdays, and getting in and out of the garage and onto a highway is a long, trying, bumper-to-bumper experience.