



# Belmont Citizens Forum

Vol. 8, No. 3

A Newsletter for Belmont Residents

May 2007

## *Safer Walking for All on Town's Agenda*

*By Bill Ellet*

In Belmont, walking isn't considered a nuisance activity necessary to get from an SUV to the grocery store entrance. Among adults, it is a popular form of exercise and a family activity. The community as whole considers "walkability" a desirable attribute of the town. The Belmont Center Planning Group believes that the Center needs to be far more hospitable to pedestrians and less automobile oriented. Its final plan will include numerous measures to help achieve this goal. According to Heli Tomford, an organizer of the Farmer's Market, many people have responded to the suggestion that they walk instead of drive to Belmont Center Farmers Market.

Three of the town's elementary schools have held Walk-to-School days this school year, and organizer Karen Parmett is exploring school participation in the Safe Routes to School program, a joint state and federal initiative. The elementary school Parent Teacher Organizations recently conducted a survey on how children get to school, how far they live from school, and how interested parents are in having their children walk to and from school. The Belmont Youth Commission and Health Department are sponsoring the month-long Golden Shoes contest, a family treasure hunt that encourages children and adults to walk Belmont in search of shoes that entitle a family to store discounts or gift certificates.

### **Walking Can Reduce Childhood Obesity**

For children, walking is increasingly being promoted as part of the answer to a public health

crisis. In 1969, about 42% of all United States school children walked or rode their bicycles to school. Today, less than 15% do. Thirty-five years ago, 90% of children living within a mile of their school walked or biked. Today, only 31% do. Most children are now driven to school, usually by a single adult—nearly three-quarters of adults who commute to work in Massachusetts drive alone. About 38% of Wellington Elementary School students usually ride to school in automobiles; nearly half of those children live a mile or less from the school.

Riding in cars instead of walking contributes to a sedentary life that can result in weight and other health problems. According to the American Obesity Association, almost a third of US children between the ages 6 to 11 are overweight or obese, and the percentages are about the same for adolescents. More alarmingly, the percentages are increasing year to year. Studies have found that excess weight in

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# Environmental Events Calendar

**Western Greenway Bird-A-Thon Trip.** Saturday, May 19, 5:45 a.m.-8:45 a.m. Explore the Western Greenway in search of birds to add to Habitat's Bird-A-Thon list. We will begin at Habitat and cover the McLean Open Space, Rock Meadow, and the Beaver Brook North Reservation. Rose-breasted grosbeaks, cuckoos, blue wing warblers, least sandpipers, American woodcocks, ovenbirds, savannah sparrows, orioles and winter wrens are among our target species. Meet at Habitat Education Center and Wildlife Sanctuary, 10 Juniper Road, Belmont. Sponsored by Habitat. \$25 donation per individual or \$35 donation for couples or groups is requested. For more information call 617-489-5050.

**Mystic Herring Run and Paddle.** Saturday, May 19, 8 a.m.-noon. Run, walk, or paddle for the fish! Run or walk along a flat and fast course on the Mystic River bike path, or hop in your canoe or kayak and paddle up the river following the herring up towards the

Mystic Lakes following a 3 mile or 12 mile course. All race proceeds benefit the Mystic River Watershed Association. Race info is at [www.mysticriver.org/calendar/herringrun.html](http://www.mysticriver.org/calendar/herringrun.html). For more information contact Mark Jacobson at 617-893-0209 or [herringrun@gmail.com](mailto:herringrun@gmail.com).

**An Evening at Belmont.** Saturday, May 19, 8 p.m.-10 p.m. This inaugural event celebrating Belmont's sesquicentennial will include refreshments, entertainment, and a silent auction. Tickets can be purchased in advance and are \$50 per person. Come to St. Joseph's Parish Center 140 Common Street. Sponsored by the Sesquicentennial Planning Committee. For more information, contact [belmont150@gmail.com](mailto:belmont150@gmail.com).

**Habitat Herb Plant Sale.** Sunday, May 20, 9:30 a.m.-4:30 p.m. Buy scented geraniums, rosemary, cilantro, lavender and more. Plants are Massachusetts-grown, organic annual and perennial herbs from J. Gilson Greenhouses in Groton. Plants are \$3 each or 4 for \$10 at the Habitat Education Center and Wildlife Sanctuary, 10 Juniper Road, Belmont; admission is free. Sponsored by the Habitat Intergenerational Program (HIP) Herb Study Group, and Habitat. Call 617-489-5050 for more information.

**A Northeast Sector Walkabout.** Monday, May 21, 6 p.m.-8 p.m. Chip Norton, Cambridge Watershed Manager, will give a walking tour of Fresh Pond Reservation's Northeast Sector, the area that is currently under construction. He will show you the site, using maps and diagrams to help illustrate the goals for this major restoration project, focusing on the Lusitania Meadow wetland. Meet at the Walter J. Sullivan Water Purification Facility, 250 Fresh Pond Parkway, Cambridge. Sponsored by Friends of Fresh Pond Reservation. To register for this free event, e-mail Elizabeth Wylde at [friendsoffreshpond@yahoo.com](mailto:friendsoffreshpond@yahoo.com) or call 617-349-4793 and leave your name and phone number.

**Five-Mile Walk on Western Greenway.** Sunday, May 20, 9:45 a.m.- 2 p.m. The Western Greenway,

## 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.

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# *NewTrail Spotlights Environmental History*

*By Jim Levitt*

The Waverley Trail Dedication Ceremony was dedicated on Massachusetts Arbor Day, April 27. The trail is a three-quarter-mile series of kiosks, wall signs, signposts, and street banners, complete with a green line on the sidewalk. It highlights the neighborhood's remarkable past, present, and future.

To the east, it extends into Waverley Square as far as the beautifully restored 1873 schoolhouse/fire station that is now the home of the Engine 1 condominiums. To the west, the trail leads to the historic home of the Waverley Oaks in the Beaver Brook Reservation, which is owned and operated by the Massachusetts Department of Conservation and Recreation (DCR). Just as Beaver Brook Reservation spans the town of Belmont and the city of Waltham, the trail is a "two-town" project that spans jurisdictional boundaries as well as generations of memories.

The purpose of the trail is to "celebrate our community and our natural heritage, from Waverley Square to the Waverley Oaks." It should inform children and adults who live, study, work, play, and shop in the neighborhood that they are standing in a place that is rightfully famous. The area has richly diverse culture and an internationally significant role in the history of public and private land conservation. The Waverley Oaks and Beaver Brook inspired the creation of both the world's first regional land trust, today known as the Trustees of Reservations, and the nation's first metropolitan parks commission, today part of the DCR.

The Waverley Trail Advisory Committee has worked for three years and raised tens of thousands of dollars to design and build the trail. Now young and old people who take the time to walk its length and enjoy its words and pictures will begin to see

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**Waverley Trail**



themselves as modern-day players in a story that goes back generations. This story includes such nationally celebrated (and lesser known) figures as:

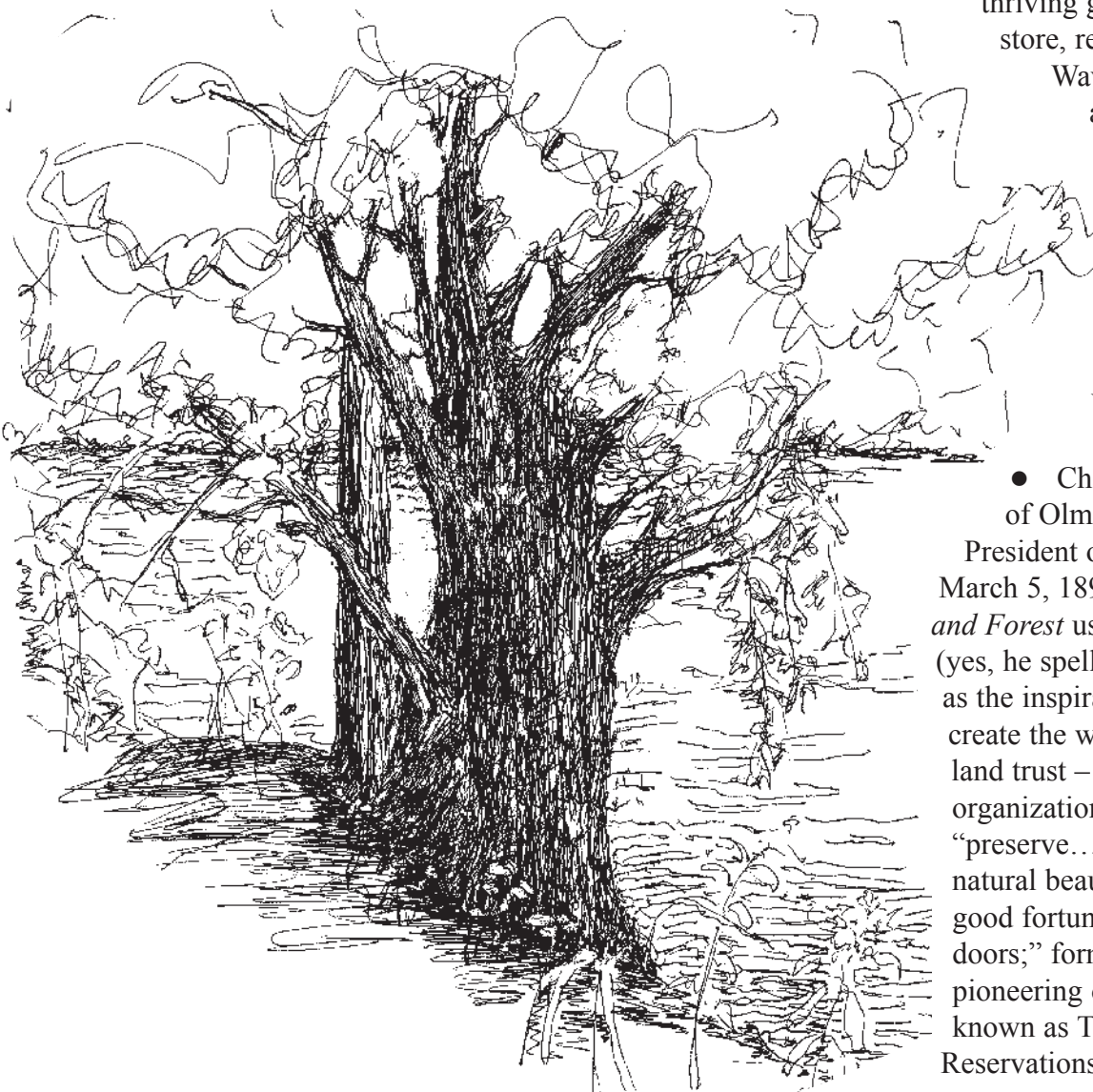
- James Russell Lowell, the man of letters whose 1848 poem “Beaver Brook” was an early plea for the restoration of nature, inspiring conservation sentiments on both sides of the Atlantic; the poem is focused on what is today a largely hidden cascade that runs through the upper Beaver Brook Reservation.
- Winslow Homer, whose lovely 1864 painting showing two ladies strolling through the Waverley Oaks illustrates the charm and appeal of recreational open space; Homer’s Waverley Oaks now hangs in a

renowned art gallery in Madrid, Spain.

- Robert Morris Copeland, the author and gardener who in 1869, while living in the house that is still standing in the upper Beaver Brook Reservation, first called for a metropolitan park system serving all of the cities and towns in the Boston region.
- Frederick Law Olmsted, the pre-eminent landscape architect of his day, who in 1872 surveyed the countryside for a new home for the McLean hospital, and who recommended the Belmont site adjacent to Waverley as “a positively excellent one;” requiring care himself as he aged, Olmsted spent the last years of his life on the McLean campus he had earlier recommended.

- Entrepreneurial families such as the Edgars and Corbetts whose thriving greenhouses and drug store, respectively, made Waverley Square a vibrant and welcoming place to live, work and visit via the Fitchburg Railway coming from Boston and the trolleys coming from both Cambridge and Waltham.

- Charles Eliot, a protégé of Olmsted’s and son of the President of Harvard, whose March 5, 1890 editorial in *Garden and Forest* used the Waverly Oaks (yes, he spelled it “W-a-v-e-r-l-y”) as the inspiration for his scheme to create the world’s first regional land trust – a non-profit organization which could “preserve... these scenes of natural beauty which, by great good fortune, still exist near [our] doors;” formed in 1891, that pioneering organization is now known as The Trustees of Reservations.





- Sylvester Baxter, a journalist who, along with Eliot followed the effort to form The Trustees of Reservations with a push to create the nation's first Metropolitan Parks Commission (the MPC), now a part of the DCR; the Beaver Brook Reservation in Belmont and Waltham was the MPC's first acquisition in 1893.

- Edwin Atkins, who along with his mother, the widow of sugar magnate Elisha Atkins, made a \$12,500 gift in 1893 to the MPC towards the acquisition of the Beaver Brook Reservation, setting a precedent for conservation philanthropy that is still being followed in the twenty-first century.

In addition to its hoped-for ability to inspire young people and their parents to follow the examples set by earlier generations, the Waverley Trail has another benefit; it serves as a gateway to the Western Greenway, an even more expansive network of open land and existing and proposed trails that link hundreds and hundreds of acres of contiguous open space.

This network includes the original Beaver Brook Reservation and now extends to the open space on the McLean land, protected in part with an easement held by the Trustees of Reservations; Rock Meadow; Habitat Education Center and Wildlife Sanctuary; the DCR's new Beaver Brook North Reservation in Belmont, Waltham, and Lexington; and Waltham's strikingly scenic Robert Treat Paine estate off of Beaver Street.

As members of the generations that have followed the conservation visionaries of the nineteenth century, we are incredibly fortunate to have so much open space so readily available not more than 10 miles from downtown Boston.

Credit for the protection and stewardship of this

green mosaic of lands goes not only to the nineteenth century conservation innovators, but also to the twentieth and twenty-first century leaders who followed through on their work. Through endless hours of debate and negotiation, ranging from the warmly collaborative to the hotly contentious, we have arrived at the present day in Belmont, Waltham, and neighboring communities with something rare and wonderful – acre upon acre of woods and pastures, populated by families of wild foxes, white-tailed deer, noisy spring peepers, and wild turkeys, all within minutes of the center point of one of the dozen largest metropolitan areas in the United States.

Charles Eliot's 1890s vision was the implementation of "a scheme by which not the scene at Waverly only, but others of the finest bits of natural scenery near Boston, might perhaps be saved to delight many future generations." If through our efforts on the Waverley Trail we engage yet another generation of young people to become active and thoughtful stewards of this precious landscape, we will have indeed made a lasting contribution to the delight and benefit of citizens of the Commonwealth, throughout the twenty-first century and beyond.

*— Jim Levitt is the Chair of the Waverley Trail Advisory Committee of the Belmont Land Trust, and the Director of the Program on Conservation Innovation at the Harvard Forest, Harvard University. He is a Belmont Resident.*



## **Events** *continued from page 3*

which will connect green spaces in a 9-mile loop in Belmont, Lexington and Waltham, is becoming a reality. The walk will begin on Trapelo Road opposite the Federal Archives, and focus on the completed northern section, which includes the Mass Audubon Habitat and Rock Meadow areas in Belmont, and Beaver Brook North (the old Metropolitan State Hospital properties in Lexington and Waltham). This walk is jointly sponsored by the Waltham Land Trust and the Appalachian Mountain Club (Boston Chapter). Bring a lunch, day pack, water, and bug spray. The walk will be leisurely but will be 5-6 miles. To register for this free program, contact Karen Patterson at [kpatters@walthamlandtrust.org](mailto:kpatters@walthamlandtrust.org) or 781-893-3355.

**Tree Walk at Storer Conservation Area.** Sunday, June 3, 10 a.m.-noon. Waltham Land Trust Board member and Waltham City Councillor George Darcy will introduce participants to the variety of tree specimens on the Storer Conservation Land. Rhododendrons should be in full bloom. The program will be held at the Storer Conservation Area of the Robert Treat Paine Estate, 100 Robert Treat Paine Drive. Sponsored by the Waltham Land Trust. To register for this free program, contact Karen Patterson at [kpatters@walthamlandtrust.org](mailto:kpatters@walthamlandtrust.org) or 781-893-3355.

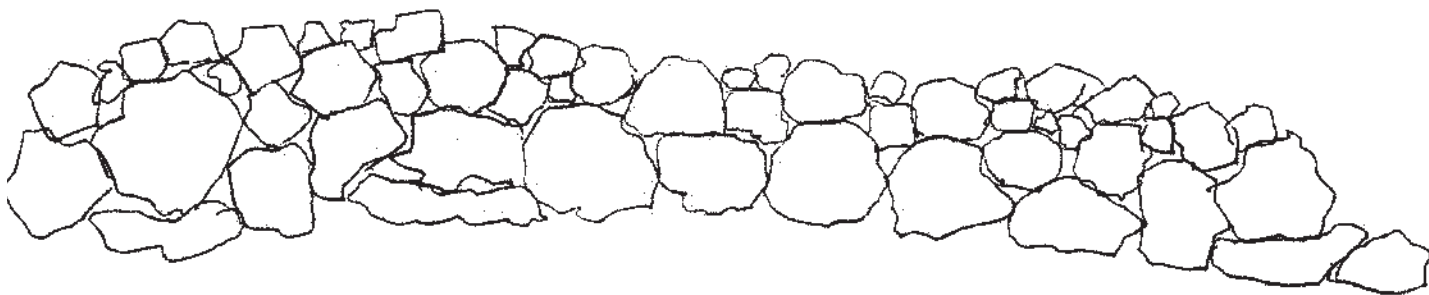
**Evening Wildflower Ramble.** Tuesday, June 5, 6 p.m.-8 p.m. Enjoy the beauty of late spring or early

summer as we explore the Belmont area in search of wildflowers. The site has an abundance of wildflowers and flowering shrubs. The walks will focus on plant identification as well as lore and history. Meet at Visitor Center at Habitat Education Center and Wildlife Sanctuary, 10 Juniper Road, Belmont. Bring a hand lens if you have one. Sponsored by Habitat and the New England Wildflower Society. The cost is \$12 for Mass Audubon members \$15 non-members; registration is required. Call 617-489-5050 for more information.

### **Sustainable Belmont Monthly Meetings.**

Wednesday, June 6, and Wednesday, July 11, 7 p.m.-9 p.m. Located in the Flett Room (June 6) and the Assembly Room (July 11) of the Belmont Public Library, 336 Concord Avenue, these meetings are open to the public. For more information e-mail [sustainablebelmont@gmail.com](mailto:sustainablebelmont@gmail.com)

**Meadow Butterflies.** Sunday, June 19, 2 p.m.-4 p.m. At Lexington's Dunback Meadow, Tom Whelan will help us spot and begin to identify the butterflies that are seasonal in our region. Meet at the entrance to the conservation area near the corner of Allen Street and Pitcairn Place, Lexington. Allen Street is off Waltham Street. This free walk is sponsored by Citizens for Lexington Conservation. Please check the CLC web site, [www.lexingtonma.org/clc/HomePage.htm](http://www.lexingtonma.org/clc/HomePage.htm), to confirm the date and time of this walk. For more information, contact Tom Whelan at 781-863-1880.





# Recycling Compact Fluorescents Saves Twice

By Meg Muckenhoupt

About one-fifth of the energy consumed by industrialized countries is used for lighting. As countless government agencies, retailers, and building managers have realized, compact fluorescent bulbs save money.

CFLs last six times as long as incandescent bulbs and use 75 percent less energy; a 15-watt CFL can emit as much light as a 60-watt incandescent. About 9 percent of an average household's electricity goes to lighting, so replacing all the light bulbs in a home with CFLs will save 7 percent on electricity bills.

## Mercury is in CFLs

Fluorescent light bulbs make light in a completely different way from conventional incandescent light bulbs, and that difference is where the mercury comes in. An incandescent bulb lights up by running electricity through a filament – the coil of wire in the middle of the bulb. As the electricity flows through the filament, the wire gets brighter and brighter, until it's white-hot. All that heat is wasted energy, unless you're heating your home with light bulbs, which is just ridiculously inefficient. According to a recent article in *New Scientist*, only 5 percent of the electricity flowing into an incandescent bulb generates light; the rest is wasted as heat. By contrast, CFLs emit 15 percent of the energy they receive as light; the rest is used to turn the bulb on.

Fluorescent light bulbs don't have a filament. Instead, fluorescent bulbs are filled with gas. When electricity runs through the bulb, that energy makes

gas molecules emit ultraviolet light. That light is converted into visible light when it hits a special coating inside the bulb's glass. Exciting gas molecules takes a lot less energy than heating up a piece of metal to make light, which is why compact

fluorescents are so much more efficient than incandescent bulbs.

The problem with fluorescent bulbs – including CFLs – is that the gas inside the tubes is a mixture of argon and mercury vapor. Mercury is a heavy metal and accumulates in our bodies over time, causing brain damage, kidney disease, severe birth defects, and many other serious maladies. Airborne mercury is not terribly hazardous, but when mercury enters waterways, it can become highly toxic and contaminates fresh-water and ocean fish. Unfortunately, it's also the stuff in the CFL that actually produces the ultraviolet light; the argon is merely there to help the mercury gas get enough energy.

## CFLs Reduce Total Mercury

There isn't much mercury in a CFL bulb, but it's still worth keeping out of our environment. Most CFL bulbs have about 5 milligrams (mg) of mercury, a

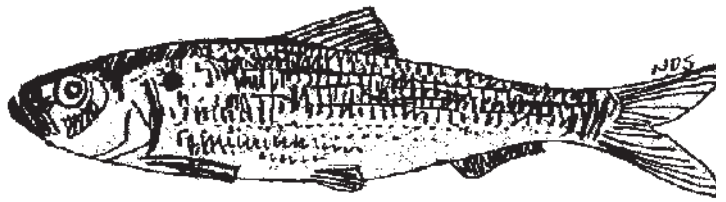
drop about the size of the tip of a ballpoint pen. Several manufacturers now produce low-mercury CFLs, with 2 mg of mercury in a typical bulb, including the Philips "Alto" line, GE "Ecolux" bulbs, and Sylvania "Ecologic" CFLs. By comparison, mercury thermometers have about 500 milligrams of mercury, and some older manual thermostats have



3000 milligrams of mercury in them – the equivalent of 600 CFL bulbs.

Unfortunately, CFLs are not the only source of mercury in the environment. Much of the electricity in the United States is generated by coal-burning plants, which generate 40 percent of U.S. mercury emissions. The United States Environmental Protection Agency estimates that over five years, powering a typical household incandescent bulb will release 10 mg of mercury into the air by power plants; the figure for CFLs is 2.4 mg. Over the five years, that would bring the CFL mercury total for power and bulb to anywhere from 4.4 to 7.4 mg – substantially lower than the 10 mg for conventional bulbs.

In theory, 2005 EPA regulations will reduce mercury emissions from coal-fired plants by 70 percent by 2018, which would tip the equation towards incandescents. However, it's hard to count on enforcing standards at such a distant date. In the next decade, exemptions and extensions might keep these filthy plants polluting the environment cheaply. Other types of electrical plants also produce toxic substances, including smog-producing nitrous oxides and greenhouse gases. Reducing energy consumption always reduces pollution, and CFLs reduce energy



*Blueback Herring*

consumption. Thus, paradoxically, using CFLs is likely to reduce environmental mercury emissions compared with incandescent bulbs.

### **Recycling CFLs makes a difference**

As long as a CFL is intact, no mercury escapes from the closed bulb. If a bulb is broken, though, the mercury is released. The bulbs are not considered hazardous waste by federal standards, and the amount is small enough that there isn't any immediate danger from a single bulb broken in a private home – but handling bulbs in the trash every day can harm the workers who haul the containers, dumpsters, and trucks, where bulbs that aren't already broken will burst in transit. If thousands of old bulbs are dumped into a single landfill, all that mercury will become concentrated in a single place, polluting the environment and leaching into the groundwater.



*Clay Pit Pond*



Recycling the bulbs keeps the mercury away from rivers, wildlife, and people.

### **Clean CFLs Safely**

The safest way to dispose of a CFL bulb is to take it to a local recycling center. In Massachusetts, recyclers extract mercury from CFL glass and re-sell it. You can drop off your burnt-out CFL bulbs at the Department of Public Works office in the Homer Building, 19 Moore St., 8 a.m.-4 p.m. M-F; the Belmont Municipal Light Department, 40 Prince St., 7:30 a.m.-4 p.m. M-F; and at Hillside Gardens, 280 Blanchard Rd., 8 a.m.-6 p.m. M-Sa.

If you do break a CFL bulb at home, you can minimize your mercury exposure by sweeping up the glass, wiping the area with a damp paper towel to pick up all the glass shards, and putting all the fragments and the towel in a sealed plastic bag. Do not use a vacuum cleaner to clean up the bulb. Vacuuming disturbs particles of dirt and other substances on the floor; the smallest particles escape into the air, polluting it. The cleaner bags are not perfect filters, and also allow small particles to rush into the air. As researchers at Texas A&M University put it, "As a result, the floor is cleaner, but the air is dirtier."

### **LEDs Increase Efficiency Even More**

The perfect light may be light-emitting diodes (LED). LEDs are semiconductors that emit light when a voltage is applied to them. At present, LEDs return 30 percent of their energy as light, making them twice as efficient as CFLs – with no mercury. They are already used in car headlights, traffic lights, and flashlights, but their harsh colors are not yet suitable for lighting most homes, and there are no screw-in LED bulbs for lamps. The technology is also still quite expensive for home use, although LED flashlights are readily available. Siemens has developed the first line of LED track lights for the home... for \$300 each. You can view the wave of the future at [gizmodo.com/gadgets/ostar/](http://gizmodo.com/gadgets/ostar/).

— Meg Muckenhaupt is Editor of the Belmont Citizens Forum Newsletter.

## **CFL Resources**

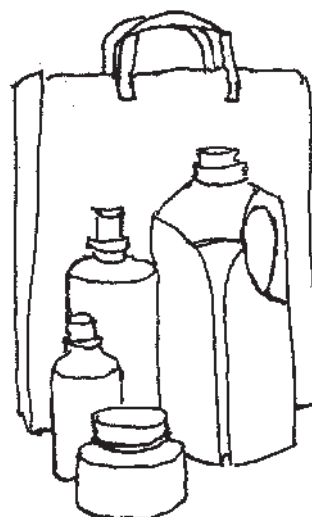
To purchase CFLs – including the Philips low-mercury “Alto” line – go to your local hardware store, or order online through the Energy Star catalog, [www.energyfederation.org/estarlights/default.php](http://www.energyfederation.org/estarlights/default.php).

The Environmental Protection Agency's fact sheet on CFLs can be downloaded at [www.nema.org/lamprecycle/epafactsheet-cfl.pdf](http://www.nema.org/lamprecycle/epafactsheet-cfl.pdf).

Energy Star's pamphlet on proper disposal of CFLs is on-line at [www.energystar.gov/ia/partners/promotions/change\\_light/downloads/Fact\\_Sheet\\_Mercury.pdf](http://www.energystar.gov/ia/partners/promotions/change_light/downloads/Fact_Sheet_Mercury.pdf).

A lengthy article with advice on color and compact fluorescents, and troubleshooting problems with CFLs is at [members.misty.com/don/cfapp.html](http://members.misty.com/don/cfapp.html).

For more information about reducing indoor air pollution, see [agfacts.tamu.edu/D10/Comal/FCS/Housing/F2/nCleaning.htm](http://agfacts.tamu.edu/D10/Comal/FCS/Housing/F2/nCleaning.htm).



# ConCom Sets New Wetlands Setback Policy

By Teresa Howe

The Belmont Conservation Commission's New Wetlands-Setback Policy In January 2007, the Belmont Conservation Commission passed a new policy tightening restrictions on activities in the first 25 feet of the 100-foot buffer zone around a wetland. The new setback policy was created in order to protect the land closest to the wetland, which is the most delicate area of the buffer zone. The new restrictions for the first 25 feet will limit activities in this area to:

- planting of native plants and vegetation
- pruning and routine maintenance of existing vegetation
- maintenance or replacement of existing beds or paths
- maintenance and replacement of utility or stormwater-management systems

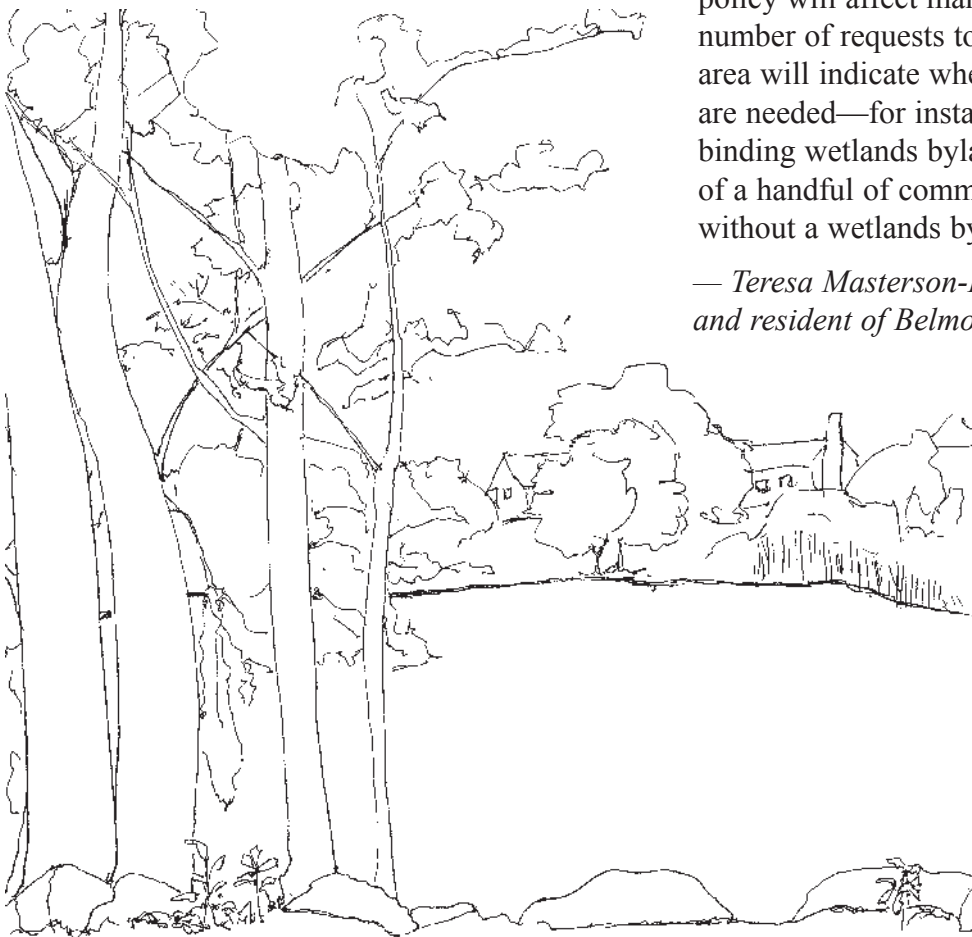
Wetlands are just what the name implies: land that has standing water much of the year. Wetlands can be

ivers, ponds, brooks, or even swamps. Belmont's wetlands are protected by the Massachusetts Wetlands Protection Act, which states that a 100-foot buffer zone must be maintained around the water area to be protected. Keeping this buffer zone free of man-made interferences such as buildings, landscaping, or driveways allows these sensitive environments to do their natural job: slowing or absorbing the movement of flood waters, keeping pollution out of the groundwater, and purifying water through natural plant processes.

Although the Belmont Conservation Commission has no way to enforce the setback policy, this new regulation will underscore the importance of environmental concerns for property owners requesting a building permit. More and more towns in Massachusetts are passing restrictions on activity in the first 25 feet of the wetlands buffer zone—restrictions supported by both scientific research and the state Department of Environmental Protection.

Few Belmont homes are located within the first 25 feet of the buffer zone, so it is unlikely that this new policy will affect many residents. However, the number of requests to permit activity in this delicate area will indicate whether more stringent regulations are needed—for instance, in the form of a legally binding wetlands bylaw. At this time, Belmont is one of a handful of communities in eastern Massachusetts without a wetlands bylaw.

— *Teresa Masterson-Howe is a nonprofit consultant and resident of Belmont.*



## **Pedestrians** *continued from page 1*

children is a reliable predictor of overweight adults.

### **Traffic Violations Imperil Pedestrians**

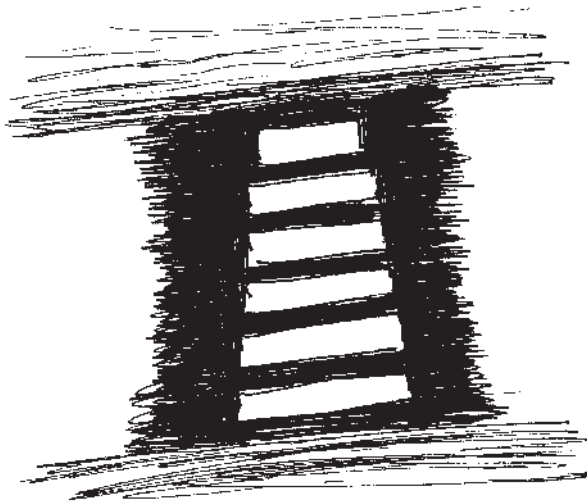
Despite the benefits of walking, pedestrians are in some ways an endangered species. The American transportation system is focused on automobiles; the minority of walkers is at risk because of accidents. In fact, being struck by a car is a leading cause of death and injury to children. The greatest risk is to children five to nine years old in their own neighborhoods. In 2005 (the latest year for which national statistics are available), nearly 5,000 pedestrians were killed and 64,000 injured.

In Belmont, pedestrians do die. Belmont Police Department annual reports show that from 2002 to 2004, three people were killed (see table below). In 2007 one pedestrian has died to date. All of the fatalities from the early 1980s onward have been people over the age of 70, according to an analysis by Sergeant James MacIsaac. About half of the fatalities in recent years have occurred outside of crosswalks; the other half were in unregulated crosswalks (those without signals).

The situation isn't ideal for pedestrians in Massachusetts. The state's Law of the Road stipulates that pedestrians in crosswalks have right-of-way. However, many drivers do not yield to people in crosswalks. Some licensed drivers aren't even aware what the law requires. The GMAC Insurance National Driver's Test is administered to a national sample to assess licensed drivers' knowledge of the rules of the road. In 2005 Massachusetts received the second lowest average score in the country. Over 23% of

licensed drivers in the state don't know the most basic traffic laws.

I recently tried an experiment, using crosswalks on Concord Avenue from Bright Road to Leonard Street. On Leonard Street and at the post office, a high



percentage of cars yielded. The rest of the way to Bright Road, I had to wait in the crosswalk until a driver finally stopped. At Trowbridge Street, where the long straightaway from Belmont Center results in higher speeds than elsewhere along Concord, I had to wait twice—once in the middle of the street—to cross the two lanes of traffic.

### **Pedestrians Confront Many Hazards**

In wintertime, walking in Belmont becomes more hazardous. Many businesses don't clear and sand or salt their walkways, as they are required to by law. Plowing contractors pile snow on public sidewalks,

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<b>Belmont Traffic Statistics</b>	2002	2003	2004	2005	2006
Total reported accidents	794	869	848	859	743
Pedestrian accidents	7	9	10	15	12
Pedestrians injured	6	5	7	13	10
Pedestrian fatalities	1	1	1	0	0



## **Pedestrians** *continued from page 11*

also a violation. Finally, many able-bodied residents don't clear the sidewalk in front of their homes. As a result, pedestrians, including school children, have no choice but to walk in the street. This isn't simply an inconvenience. In 2005, federal statistics show that nearly 21% of pedestrian fatalities involved people who were not attempting to cross a road but were on the roadway, usually walking or working.

At the same time, up to half of pedestrian accidents are the pedestrian's fault. Crossing streets in mid-block between parked cars or darting into the roadway are examples of behavior that can lead to injury and death.

### **Education, Engineering, Enforcement Key**

The three E's—education, engineering, and enforcement—are the key to pedestrian safety, say government transportation experts and advocacy groups such as Walkinginfo.org.

The Safe Routes to School program has two educational components, according to organizer Karen Parmett. The first is aimed at parents and the community, and the second is a school curriculum that teaches essential pedestrian and bicycling safety skills. However, research shows that education doesn't improve most children's safety until they are over nine.

Engineering may be the most efficient way of enhancing the safety of walkers. Roads and sidewalks can incorporate features that reduce vehicle speeds and shorten road crossings. These features include pedestrian facility design, roadway design, intersection design, traffic calming, traffic management, and signals and signs.

Cara Seiderman, a well-known traffic engineer who works for the city of Cambridge, emphasizes that engineering techniques are a "toolbox" of choices—all can be useful in particular circumstances but none are a

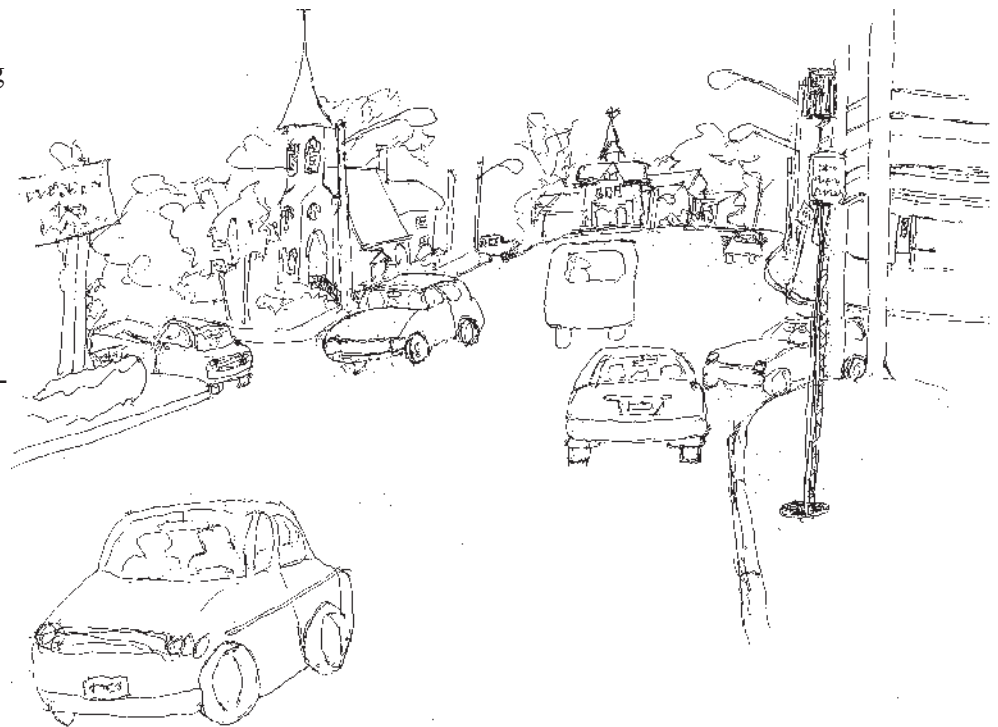
universal solution for getting vehicle speeds down. And, she notes, road-related designs and policies can be examples of the law of unintended consequences. For instance, a continuous median such as the one on Concord Avenue can promote higher driving speeds and thus put walkers at greater risk. Moreover, most pedestrians are hurt or killed at night. By removing all parked vehicles from the streets, overnight parking bans widen streets, promoting higher speeds when visibility is reduced.

The construction of roads and sidewalks can build in safety features that reduce the odds of accidents. Measures include pedestrian facility design, roadway design, intersection design, traffic calming, traffic management, and signals and signs.

Traffic calming can be very effective in reducing vehicle speeds and facilitating safe street crossing. There are more than fourteen different traffic-calming techniques, from curb extensions and chokers to raised intersections to speed humps and serpentine design. Belmont has steadily implemented engineering treatments that support pedestrian safety.

### **Belmont Improves Safety**

Traffic-calming techniques are a major feature of the Trapelo Corridor redevelopment. Bump-outs have been constructed at the intersections of Trapelo Road





## **BELMONT FARMERS' MARKET OPENING DAY**

**Thursday, June 14**

**2 – 6:30 pm**

**Belmont Center Parking lot rear  
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and Poplar Street and Willow Street. Pavement markings have been painted along the bump-out approach from each direction, signage has been installed, and the crosswalks are now painted in the international style with broad stripes parallel to the curbs.

On the rebuilt Bright Road, the intersection at Gale Road has been raised. The greatest improvement of the new traffic circle at Washington Street, Grove Street, and Blanchard Road may be the safety of walkers. The sprawling former intersection was almost impossible for pedestrians to cross; now, with all three roads narrowed at the circle, they can be easily crossed.

The reconstruction of Brighton Road includes a serpentine design between Concord Avenue and Hittinger Street that reduces speeds on what was formerly an unimpeded straightaway.

Glenn Clancy, Belmont's town engineer, says that in 2007, four roadway construction projects will have pedestrian safety features. Cross Street will have a raised pedestrian crossing at the Winn Brook School. The intersection of School Street and Washington Street will become a four-way stop, making "it safer for pedestrians as well as motorists."

Clancy added, "the pedestrian crossings on Common Street at Washington Street will be narrowed to make it safer to cross Common Street, and the intersection of Washington Street, Oakley Road, and Goden Street at the Chenery School will be reconfigured to make it safer for both pedestrians and motorist."

The Belmont Police Department has been successful in establishing pedestrian right of way in Belmont Center crosswalks. The department employs sixteen crossing guards who assist children around the elementary schools.

National traffic authorities note that police departments should ask, "Why do we expect pedestrians to go to a crosswalk? Do drivers behave differently there by yielding?" If crosswalks are attractive, pedestrians find value in going to them. Informal observations in Belmont Center tend to support that principle. Enforcement has drawn pedestrians to the crosswalks and cut down on jaywalking.

*— Bill Ellet is a member of the Belmont Citizens  
Forum Newsletter committee.*

## Traffic continued from page 16

American car culture. Let's consider cultural history.

Before traffic jams, there were cow jams on Boston Common. The citizens of Boston were free to graze as many of their cows on Boston Common as they wished. Everyone got the benefit of free grass for the cows, but no one paid for the damage the Common suffered when it was overgrazed. Each individual knew there were too many cows, but individuals benefitted from pasturing more and more cows, not from preserving the Common's grass for some neighbor's cow. When enough people have free access to public property, that property will be unwisely overused.

From the point of view of economists, roads are common properties that are overused because the incremental cost of road use is zero. Once you have a registered car, you can drive on downtown Boston streets all day for free. This is analogous to allowing every Boston taxpayer to put as many of his cows on Boston Common as he wished, for free. Free cow grazing did not work well. Free road use gives us

ridiculous traffic jams. The element that controls congestion level, if people have transportation choices, is the tolerance people have for congestion, which is high.

Here in Belmont, if you have occasion to go near the Chenery Middle School near the end of the school day, you will see a traffic jam picking up students because school busses cost money. In my experience, Belmont families will cross the railroad tracks by car four times a day, saving school bus fees at the rate of a dollar an hour. This is not reasonable. It is also an environmental problem. Americans do worse than this. The sociological classic *Middletown* documented how by 1924 families in Muncie, Indiana, would skimp on food and clothing to keep their cars on the road.

Since at least the 1960's people have known that building more roads can not solve traffic congestion. The history of the Long Island Expressway is a classic example of the futility of building roads to solve congestion problems. Housing developments kept pace with the highway's construction, and congestion remains unrelenting.





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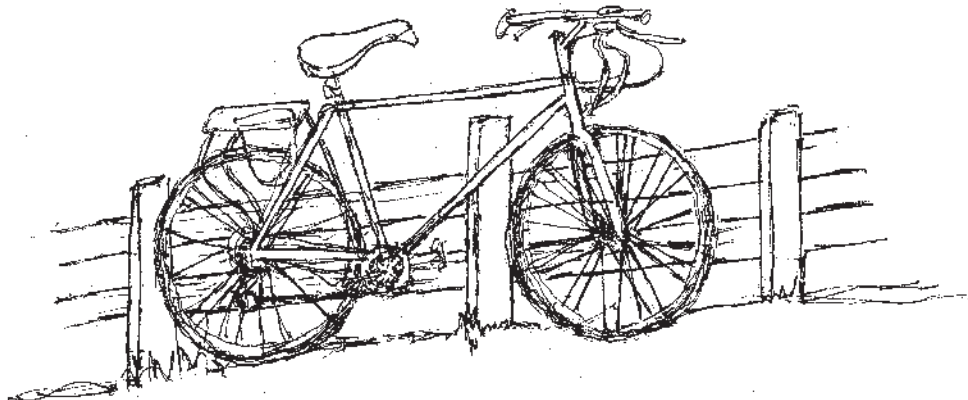
**Make checks payable to Belmont Citizens Forum and mail to Belmont Citizens Forum, P.O. Box 609, Belmont MA 02478. Thank you!**

Belmont would be a much nicer town if we could charge people to drive cars across the three places in town that cross the railroad tracks during rush hour congestion. The congestion pricing fees would depend on the time of day and the day of the week, so you could go to the library in the evening for free, but driving your kids to school during rush hour would cost you.

One simple bit of technology would make implementation easy. Every vehicle in our country could have an EZ Pass account. Using public roads would no longer be free or anonymous. You would lose privacy, but criminals would be most inconvenienced.

The next few generations will see changes in Americans' relationships with cars. My suspicion is that fossil fuels will become more expensive and the world will get warmer. So far, more expensive fuel has not noticeably slowed the spread of traffic congestion. Ideally people will realize that living close to work makes their lives more productive and harms the world less. Congestion pricing would accelerate this epiphany — and take pressure off real estate taxes.

*— Sumner Brown is a Director of the Belmont Citizens Forum.*



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***People Are Asking***

## **Should Belmont Adopt Congestion Pricing?**

*By Sumner Brown*

London substantially reduced its traffic congestion in 2003 without building new roads, bridges, or tunnels, without more subways or shuttle busses. They did it, more or less, with the stroke of a pen called "congestion pricing." Stockholm adopted it after London, and Manhattan may be next. It could work in Belmont too.

The concept is simple: people who make congestion worse by driving their cars in traffic jams

should pay for that privilege. People who drive into the center of London during business hours must now pay £8 to do so. Drivers make their payments in a variety of ways, such as by visiting a local store or paying over the Internet. Traffic is monitored by video cameras. If drivers do not pay voluntarily, that will be noticed. Results have been spectacularly good. Congestion has been reduced by one third and some bus trips take half the time. Taxi trips are now less expensive because there are fewer delays. It is so popular that Londoners want the program expanded.

Congestion pricing appeals to environmentalists, to political conservatives who like to solve social problems with market forces, and to people who want to give police more tools to fight crime. Congestion pricing also strikes fear and loathing into the heart of

*continued on page 14*