



# Belmont Citizens Forum

Vol. 7, No. 4

A Newsletter for Belmont Residents

July 2006

## Cushing Square May Launch Business Rezoning

By Sue Bass

A chemical spill reported in 2004 may open the door to new zoning for Cushing Square that could please both residents and business owners. The Belmont Planning Board is likely to present new zoning to Town Meeting this fall that will allow three-story buildings with housing above the stores and allow a parking garage to replace the municipal parking lot in Cushing Square. The details are not set, but the Planning Board is committed to bringing a proposal to Town Meeting. It expects to devote its entire July 25 meeting to discussing Cushing Square.

The proposed new zoning is likely to consist of a Cushing Square overlay district that would apply only to several blocks at the heart of the square. An overlay district is new zoning that does not replace the current underlying zoning. Instead, it gives new privileges to landowners who follow new rules prescribed in that zoning. The possibilities being considered include simpler permitting requirements but mandatory design guidelines.

The biggest concern many have with Cushing Square – that a pedestrian can't get across Trapelo Road to shop on the other side – is already being dealt with by Belmont's Traffic Advisory Committee. Town work on a redesign of the entire Trapelo Road/Belmont Street corridor from the Waltham line to the Cambridge line, including wider sidewalks with more trees, is well underway. The town expects state funding to pay for rebuilding the road and sidewalks, just as the state is already paying for the reconstruction of Pleasant Street.

The overlay district was inspired by chemical contamination under the Common Street building that

contains Tops Cleaners. A portion of the plume of pollutants extends under the former S.S. Pierce building next door, at the corner of Trapelo Road. The owner of the Tops building, Jenkins-Starr LLC, has decided that tearing it down is the most efficient way to remove the pollutants, as state law requires. Jenkins-Starr asked the town last fall for permission to replace its two-story building with a three-story structure that extends deeper into the rear parking lot. Such an expansion requires approval both the Zoning Board of Appeals and from the Planning Board, including a waiver of parking requirements from the Planning Board.

The proposal to expand the building was an opportunity to rethink the entire block, which also contains the S.S. Pierce building, Starbucks, the municipal parking lot, two houses on Horne Road, and a commercial building at the corner of Horne and

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# Environmental Events Calendar

By Michael Stratford

**Edible Weed Walk.** Thursday, July 13, 6 p.m.–8 p.m. Join edible wild plant expert Russ Cohen on a walk through Busa Farm and the Arlington Reservoir. Learn to identify and eat purslane, chickweed, and many other common field weeds. Light refreshments will be served. This free walk is sponsored by Busa Farm Community Supported Agriculture. Meet at the Busa Farm stand, 52 Lowell Street, Lexington. For more information, contact Meg Muckenhaupt at [megmuck@gmail.com](mailto:megmuck@gmail.com).

**Butterflies and Moths at Dunback Meadows.** Saturday, July 15, 2 p.m.–4 p.m. Learn to spot and identify butterflies that are seasonal in our region. Meet at the entrance to the Dunback Meadows conservation area near the corner of Allen Street (off Waltham Street) and Pitcairn Place, Lexington. Please check the Citizens for Lexington Conservation website ([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, call 781-863-1880.

**Rock Meadow Trail Maintenance.** Saturday, July 15, 8:30 a.m.–12:30 pm. After this spring's months of rain, Rock Meadow's trails are very overgrown. The Rock Meadow Sub-Committee will be working to make the trails passable again and cutting back the growth on the edge of the trails. Tools, lunch and refreshments will be provided; bring bug spray, sunscreen and water. For location and more information, contact Debbie Hartman at 617-869-9668 or [debbie\\_hartman@comcast.net](mailto:debbie_hartman@comcast.net).

**Sustainable Belmont Meeting.** Wednesday, August 2, 7 p.m.–9 p.m. Located in the Flett Room of the Belmont Public Library. Open to the public.

**Insects and Ice Cream.** Wednesday, August 2, 6 p.m.–7:30 p.m. Come on a bug treasure hunt with a sweep net in Habitat's meadow to see what we can find! We'll listen for cicadas, look for grasshoppers, and see how many different kinds of beetles we can find. Afterwards we'll have ice cream. Sponsored by Habitat Education Center and Wildlife Sanctuary. Registration is required; fees are \$7 for Massachusetts Audubon members, \$9 for non-members. Meet at Habitat, 10 Juniper Road, Belmont. For more information contact 617-489-5050 or [habitat@massaudubon.org](mailto:habitat@massaudubon.org).

**Blue Heron Bridge Walk.** Friday, August 4, 5:30 p.m. Join the Waltham Land Trust for a short walk to the beautiful new Blue Heron Bridge, which spans the Charles River and connects the Cheesecake Brook in Newton to woodlands in Watertown. For more information, contact Karen Patterson at 781-893-3355 or [kpatters@walthamlandtrust.org](mailto:kpatters@walthamlandtrust.org).

**Beaver Brook Reservation North Walk.** Sunday, August 13, 10 a.m. Explore the Department of Conservation and Recreation's newest reservation: 254 acres located on the grounds of the former Met State Hospital. See the old carriage paths and smaller side trails in this reservation, which is filled with upland forests, meadows, forested wetlands, emergent

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## 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  
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# Residents Protest Planned Uplands Sewers

By Sue Bass

Residents of Belmont's Little Pond area stood up at the Zoning Board of Appeals (ZBA) hearing on June 28 to report how they had suffered from sewage backing up into their basements. The ZBA is considering an application by O'Neill Properties to build a 299-unit housing complex on the Belmont Uplands at Alewife. Residents fear that the development's sewage-carrying pipes will overload the local sewer system and increase backups.

Sewage backups occur during heavy rains because rainwater gets into the sewer pipes. That water comes from cracks in the pipes, sump pumps, or roof drains that are illegally hooked up to the sanitary sewer system instead of to storm drains, often without the homeowner's knowledge. That rainwater is more than the sanitary sewer pipes can hold, and so the wastes surge back up into basements.

## Sewage Flows Through Winn Brook

Eighty percent of Belmont's sewage flows through the Winn Brook neighborhood on the way to a connection to the Massachusetts Water Resources Authority pipe at Flanders Road, near the White Hen Pantry on Brighton Street. The pipes from the proposed O'Neill development would take a particularly circuitous route: from Acorn Park Drive to Frontage Road to Lake Street to Garrison Road to Gilmore Road to Oliver Road.

The route was chosen to avoid the Little River and the Hill estates. Going under Little River would

require an easement from the state Department of Conservation and Recreation, which owns the Alewife Reservation. O'Neill might have to pay a hefty price for an easement to use the privately owned pipes on the Hill Estates, O'Neill representatives said. Carolyn Mieth of Cambridge said her city had refused to let Uplands utilities come through Cambridge, as O'Neill had originally planned.

Oliver Road residents were adamant. "It's a health hazard," said Elaine Agrillo.

"I had sewage backing up during the May storms," reported Kathleen Connolly. "Why is there no other route for the wastewater?" asked Larry Flynn.

## No Easy Answers

Sewer consultants David Albrecht of Rizzo Associates, representing O'Neill, and Justin Gould of Fay, Spofford & Thorndike, representing the town, discussed the problem at the June 28 meeting.

Bob Gallant, a Town Meeting Member representing Winn Brook, asked whether the situation would be improved by installing a pump at the point where a 15-inch pipe under Brighton Street flows into the 30-inch main running from Channing Road across Brighton to Flanders Road. Gould said such a pump would likely send the problem elsewhere. Experts have explained in the past that a surcharge – more volume than the pipes can hold – in any of the pipes running through Winn Brook can make sewage back up into all the Winn Brook pipes.

Some questions may be answered in August, after



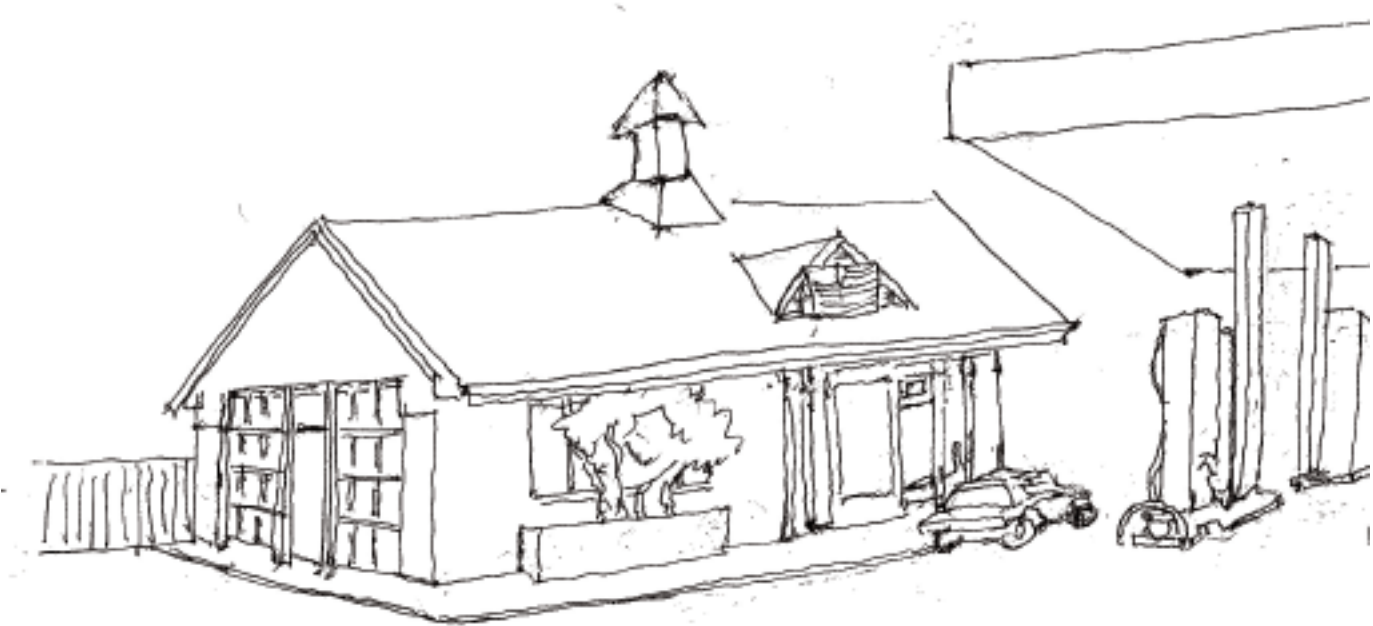
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Fay, Spofford has completed a model of Belmont's sewer infrastructure for the town, Gould said. The firm is scheduled to present that model to the Board of Selectmen on August 7. However, Fay, Spofford has not been asked to test any particular situations – like the addition of the O'Neill sewage to the system, Gould said.

Tony Lucchese, a member of the Zoning Board of Appeals, asked whether Gould knew of cases where construction had been banned because of sanitary sewer surcharges. Gould said he did not; in particularly bad situations, the usual remedy is to require a much larger payment from the developer to remedy the problems causing the surcharging. Those payments, known as "inflow/infiltration mitigation,"

from our sewers in storms might be about 13 to 1, based on modeling a problem downstream from Belmont at the Somerville Pumping Station, which has been averaging about seven sanitary sewer overflows per year. Brown urged the Zoning Board of Appeals not to ask for too low an I/I mitigation amount, as was done with the McLean development; McLean was asked for only 5-to-1 I/I mitigation. Brown also faulted charging McLean's only \$1.26 per gallon for I/I removal. The Massachusetts Department of Environmental Protection says the typical cost is between \$2 and \$4, with some communities getting \$10 per gallon, Brown said.

The Citizens Forum is soliciting funds to hire an independent sewer consultant to evaluate the Winn



or "I/I," can run as high as funding 10 or more gallons of I/I removal for every gallon of sewage a developer wants to add to the system, he said.

The ultimate goal is to remove enough I/I so there are no sewage surcharges. If that is not possible, then the idea is to take enough I/I out of the system so that there will be fewer surcharges. That way, even though the sewage in the system is more concentrated, the total amount of pollution spilling into local streams won't increase.

Brown suggested that an objective standard to avoid increasing the amount of pollutants that escape.

Brook situation. The consultant, Norfolk Ram, is already representing the Citizens Forum on a challenge to the sewer connection permit for American Retirement Corp.'s 399-unit "Freedom Commons" senior complex at McLean. The American Retirement Corp. challenge recently passed a screening process at the state Department of Environmental Protection and was referred to the state's Division of Administrative Law Appeals.

—Sue Bass is a director of the Belmont Citizens Forum.

# Garlic Mustard Poisons Tree Seedlings

Gardeners, landscapers, and botanists have known for a long time that garlic mustard (*Alliaria petiolata*) is an invasive weed. Now, researchers have found that this selfish plant not only hogs water and sunlight, but also stunts young trees by poisoning the soil.

Scientists at Harvard's Petersham forest and four other universities investigated garlic mustard's relationship with arbuscular mycorrhizal fungi (AMF), a soil fungus that penetrates the roots of young hardwood trees and helps nourish them. The fungus's long filaments effectively extend the trees' root system. The fungus gets energy from the tree, and the tree gets nutrients from the fungus.

After an area has been invaded by garlic mustard, the amount of AMF in the soil drastically declines, with a profound effect on tree growth. Seedlings planted in soil that had been invaded by garlic mustard grew just one-tenth as fast as seedlings planted in soil which had never hosted garlic mustard. Adding garlic mustard extract to soil also stunted tree growth. Kristina A. Stinson, a plant population biologist at the Harvard Forest,

commented in the Harvard Gazette, "By killing off native soil fungi, the appearance of this weed in an intact forest could stifle the next generation of dominant canopy trees."

For more information on controlling invasive weeds, see "Homeowners Can Control Invasive Plants," Belmont Citizens Forum Newsletter Vol.7 No.3, May 2006. More information on the Harvard study is available at <http://www.news.harvard.edu/gazette/2006/04.27/15-invasive.html>



Garlic Mustard

## Correction

The article "Gropius House Rediscovered on Belmont Hill" (Belmont Citizens Forum Newsletter Vol.7 No.1, January 2006) contained the statement:

"The Howletts occupied the house until 1960 when it was sold to Pierre du Pont IV. Pierre du Pont lived here while attending Harvard Law School and contemplated enlarging the house; however, his plans were never carried out."

The Citizens Forum has learned that it was not the DuPonts but Donald Shively, the subsequent owner, who planned to close in the carport to create a playroom. We sincerely regret the error.

## Cushing Square *continued from page 1*

Common containing the East Cambridge Savings Bank and the E-Z Duz It Laundromat. Across Horne Road is the vacant former CVS building, which is also under intense discussion.

### Building Height is Key Issue

At three public meetings with residents and business owners this spring, members of the Planning Board and the town's Planning staff discussed some of the key issues to be regulated by the overlay district: Should buildings go to three or four stories? Could regulation be reduced and still protect the neighborhood? What about design guidelines and historic preservation? Should housing be allowed over stores? What about a parking garage?

Given the objections many residents have raised to letting buildings go as high as four stories, Jay Szklut, Belmont's planning and economic development manager, said the private reaction from businesses was that three stories was probably high

enough, if they could get the third story with less bureaucracy.

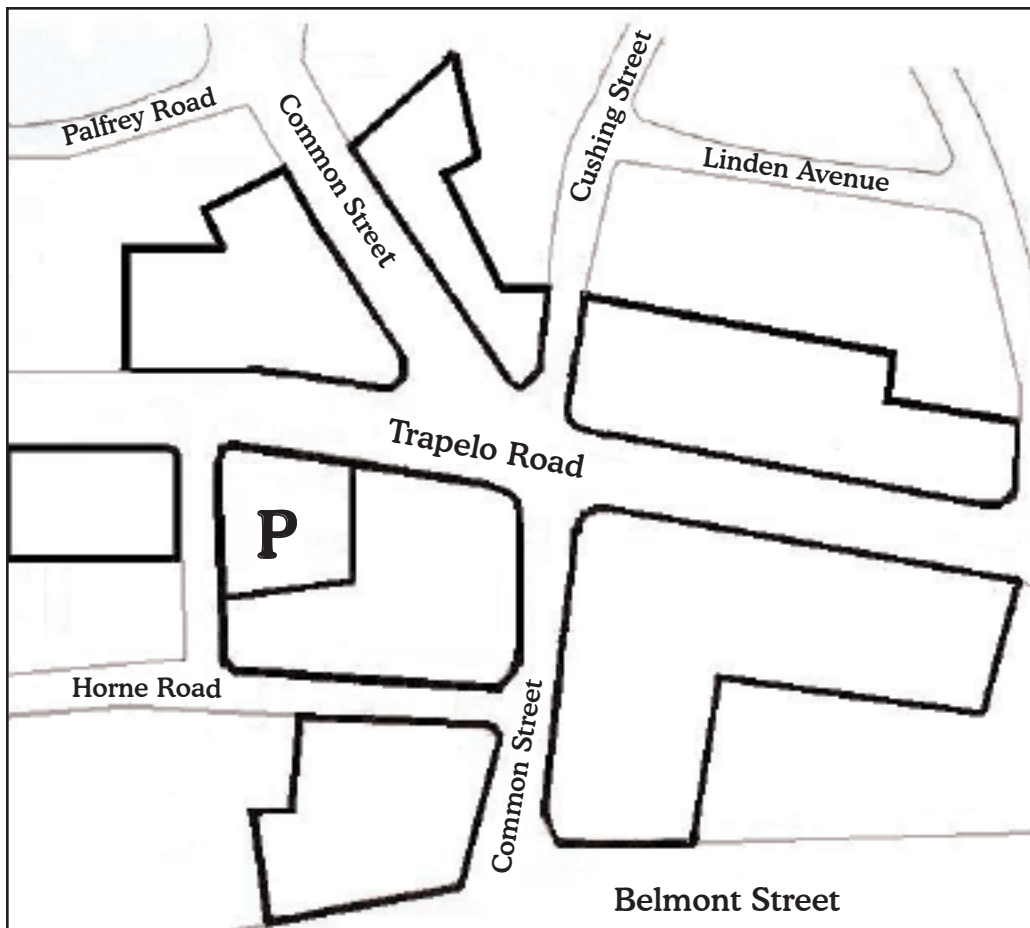
### Permitting will be Simplified

"The permitting process is too difficult, they say," Szklut reported. "To go over 5,000 square feet [for a single store,] they have to go to both the Zoning Board of Appeals and the Planning Board." Simplifying that process, Szklut said, is a major goal of the overlay district. A larger store would still require a special permit, he said; but requiring applicants to go to one board instead of two would make a considerable difference.

At a public meeting April, Joe De Stefano, owner of the former Conrad Chandler building in Cushing Square, reported that a few years ago Mohr & McPherson, a Cambridge importer of household goods, wanted to rent his whole building; but when Kevin McPherson learned what Belmont's process would involve, he decided against it.

Historic preservation is also likely to be an element. "If you look at the histories of buildings, people lament the loss of the Olive Block" in Belmont Center, where the Belmont Savings Bank is now, commented Karl Haglund, chairman of the Planning Board, at a meeting with Cushing Square residents on June 1. Sonia Guterman of Oakley Road called the former S. S. Pierce building at the corner of Trapelo Road and Common Street "a treasure." Others noted that the building had been designed in a residential style – Dutch colonial – to fit into the area's residential neighborhood.

Having 24-hour use by people living in the square would also help, said architect David Johnson, a Precinct 6 Town Meeting Member, at the June 1 meeting. Condominiums or



*A schematic map of one proposal for the overlay district; the district has not been finalized. The capital letter P marks the municipal parking lot.*

apartments over stores would make the square less dead at night, and the residents would be customers for nearby shops.

### **Parking Garage Likely**

Szklut said the idea of a garage appears to be gaining acceptance from the area residents. Technically, a garage could be built through one of several mechanisms, he said. The quickest way would probably be for the town to lease the municipal lot to a private developer. The town could also float bonds to build the garage under a plan called district improvement financing. Property taxes would increase on businesses in the designated district, with the extra money dedicated to paying off the bonds.

A proposal for a garage on the S.S. Pierce block was put forward about five years ago by former Selectman Bill Skelley. Skelley suggested a multi-story parking garage on the site of the parking lot, with stores on the ground floor along Common Street. Other business officials – like a regional manager of the Starbucks, which also has a parking lot – have expressed interest in the concept. Combining several properties to build a garage through a joint venture has advantages. No matter how large a garage is, it requires only one set of ramps between floors. If it extends through the block, the entrance and exit can be on different streets, reducing traffic congestion.

Skelley himself was later denied permission to expand his Cushing Square office building, in part for lack of parking space. He moved his principal business to New Hampshire, complaining of the bureaucratic hurdles he faced in Belmont. He has now sold his Cushing Square building but said he remains interested in working on a parking garage there. “Nothing is going to develop without effective parking to attract people to the stores,” he said in an interview.

In June, Starr agreed to wait until late fall 2006 to rebuild on the Tops Cleaners site, to see if an overlay district passes Town Meeting. He accepted that delay as a condition of the Planning Board’s approval of his application for a waiver of some parking spaces. Property owners in the area have been



discussing what they might do if the overlay zoning district is approved by Town Meeting, Starr said. “My interest is to seize the opportunity for a development that would be beneficial to the character of Cushing Square and the residents and businesses,” he said. “People want to see amenities – that grocery store they can walk to, that boutique – but those things don’t automatically appear.”

A number of possibilities for a parking garage have been bandied about, he said. It might even involve a land swap, Starr said, because it makes more sense to have stores on Trapelo Road and a garage fronting on Common Street.

Tops Cleaners is expected to move in mid-July to a new location now under construction in Watertown, and the jeweler and tailor will also move this summer to space owned by Jenkins-Starr on Trapelo Road near Brigham’s, Starr said. The building will come down soon afterward.

For more information, check the town web page: [http://www.town.belmont.ma.us/Public\\_Documents/BelmontMA\\_BComm/planning/Cushing%20Square%20Revitalization](http://www.town.belmont.ma.us/Public_Documents/BelmontMA_BComm/planning/Cushing%20Square%20Revitalization).

— Sue Bass is a director of the Belmont Citizens Forum and chair of its Planning/Zoning Committee.



*Frank Curro salutes market-goers*



*Farmers' Market committee members stand with Belmont Selections*

## ***Farmers' Market Opens***

*By Jeff Bairstow*

Well, the Belmont Farmers' Market finally came to town in a municipal parking lot behind Leonard Street. You just had to

The inaugural Belmont Farmers' Market was an out-and-about working committee under the firm hand of Heli Tomford, with a tip of my tifter to all the courageous vendors who showed up

What a series of luscious spreads the organic vendors laid out were crisp veggies ripped from the soil only hours before the candy that surely would prove eminently persuasive with a loaf almond biscotti that just cried out (mamma mia!) for a bottle

Well, there's always next time. The Belmont Farmers' Market runs from 2 p.m. and 6:30 p.m. until October 26, with a variety of organic products. Visit [www.belmontfarmersmarket.org](http://www.belmontfarmersmarket.org) for more information. Mangia!

— Jeff Bairstow is a member of the Belmont Citizens Forum and was used with the kind permission of Channel 8's Belmont Focus





*ectmen on opening day.*

## *ns in Belmont Center*

on Thursday, June 15, tucked away in the back corner of the be at this haven of organic victuals or be square.

out, knockdown, drag-out success. Kudos to the hard- man about town and majordomo of the whole shebang. And up for this premier production.

out for immediate purchase and gustatory delight! There market opened. There was a mountain of mouthwatering ved one of your choice. There were deliciously crunchy of vin santo or a rich cappuccino for dunking purposes. rket will be open every Thursday between the hours of 2 e foods and native nosh. See the market's web site at ia, mangia!

newsletter committee. Photos by Ed Yee and Jeff Bairstow, and jbproductions.



*Sarah Brownsberger, Market Elf*



*Leslie Wolf takes a break from baking*

# Biofuels Reduce Gas Use, Help Farmers

By Emily Huhn

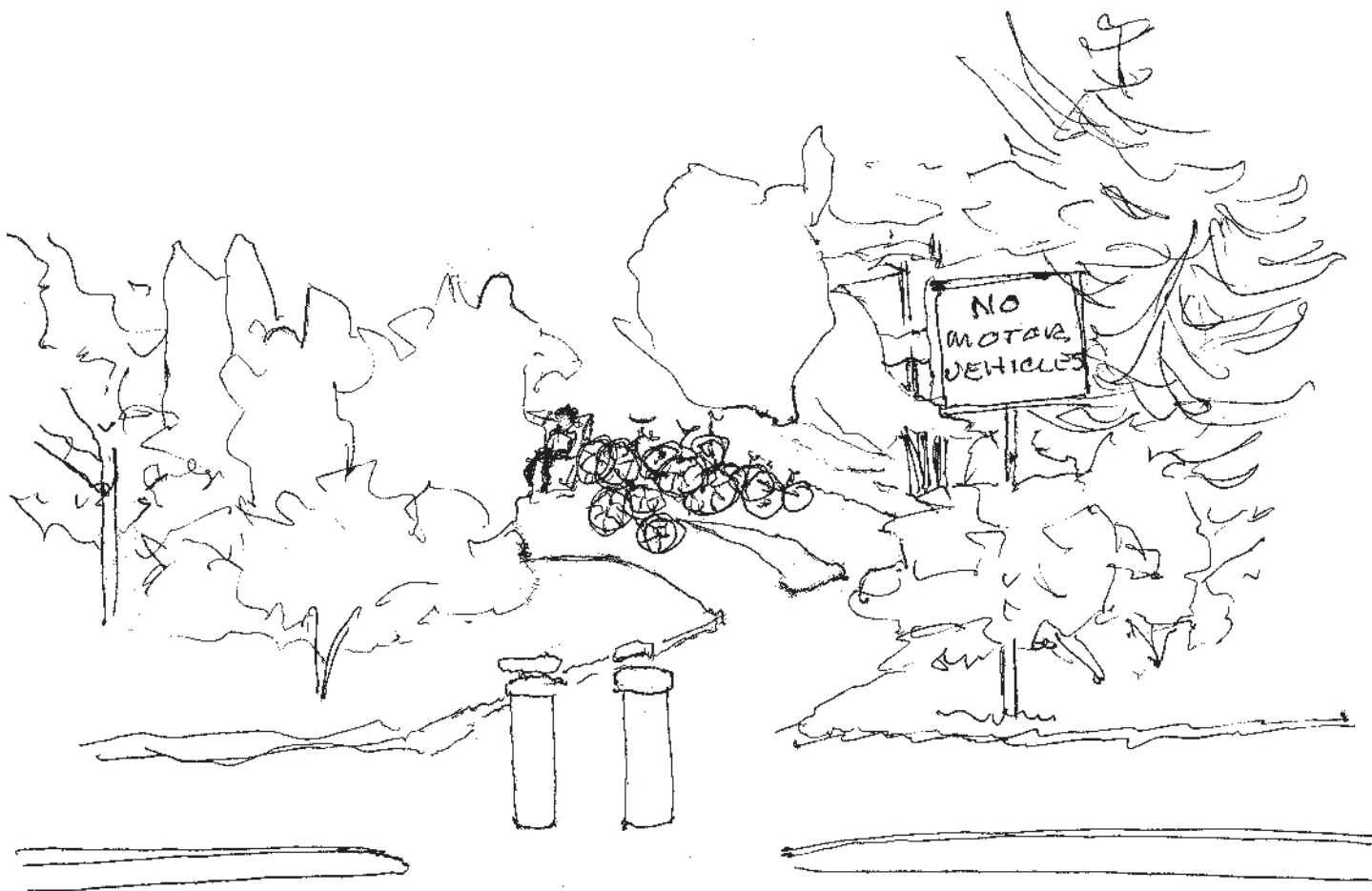
Is your car less than 10 years old? If so, you might be able to fill up your tank with biofuels instead of gasoline. A flexible-fuel vehicle is a car that can run on gasoline or on E85 biofuel (a mix of 85 percent ethanol and 15 percent gasoline). Manufacturers began making flexible E85/gasoline engines a standard feature on some cars as early as 1997. According to a recent Boston Globe article, there are about 250,000 flexible-fuel vehicles in Massachusetts, but many drivers of these cars do not realize that their automobiles can run on an alternate fuel.

Unfortunately, even if they did know, it wouldn't do them much good. You can fill up with E85 in 38 states, but not in Massachusetts. There isn't a single E85 pump in all of New England. The Massachusetts state government purchased a fleet of flexible-fuel

vehicles in order to meet the requirements of the Energy Policy Act of 1992, but since E85 isn't available in Massachusetts, these cars run on gasoline instead.

Every year, our cars and trucks use 137 billion gallons of gasoline. As oil prices continue to rise and climate change becomes an increasingly urgent issue, it is becoming clear that our current energy system is not sustainable. Biofuels are getting serious attention because they emit fewer greenhouse gases (gases that absorb and trap solar energy, thereby contributing to the warming of the atmosphere). The three major greenhouse gases emitted by motor vehicles are carbon dioxide, nitrous oxide, and methane.

Both ethanol and biodiesel are considered biofuels. Fuel ethanol, or ethyl alcohol, is made by fermenting and distilling simple sugars, and it is the same compound found in alcoholic beverages. About 90 percent of the ethanol made in the United States



## **Biofuels** *continued from page 10*

today comes from corn. However, ethanol can also be produced from cellulose-based materials such as switchgrass, sugar cane, and paper sludge.

### **Biodiesel Can Heat Homes, Fuel Cars**

Biodiesel (derived primarily from soybean oil) is currently available in Massachusetts and is used for heating homes and by some motorists since it can be used in conventional diesel engines. Otis Air Force Base, Harvard University, NStar, the cities of Medford and of Cambridge, and the town of Brookline are also currently using biodiesel for either transport or heating. Thirty-one billion gallons of conventional diesel are used in the U.S. each year, but only 30 to 60 million gallons of biodiesel are produced. However, biodiesel is not as practical on a large scale as ethanol, because soy costs more and produces a lot less energy per acre than corn, according to Lee Lynd, a bio-fuels expert and Dartmouth College professor.

### **The Goal: Get as Much Out As You Put In**

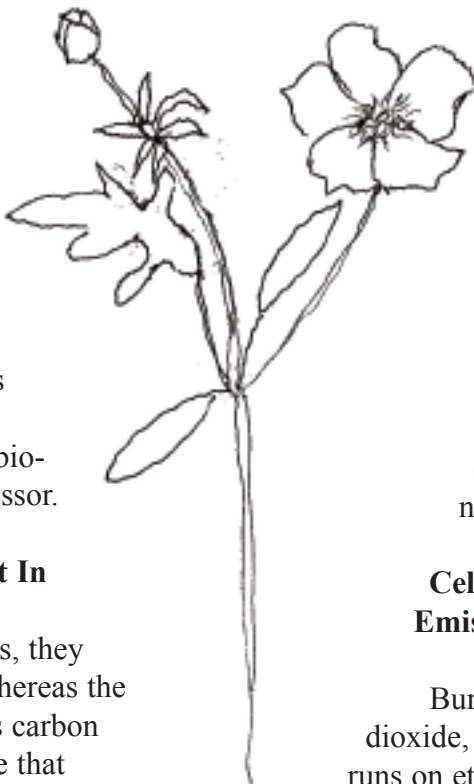
Because biofuels are made from plants, they have the potential to be carbon neutral. Whereas the combustion of fossil fuels simply releases carbon dioxide into the atmosphere from a source that originated underground, the carbon emissions from combustion of biofuels could be completely offset by the carbon dioxide captured by growing plants. Photosynthesis (the process by which plants convert light into chemical energy) takes carbon dioxide from the atmosphere. After photosynthesis, plants can be converted to liquid fuels and burned, returning carbon dioxide to the atmosphere. Theoretically, this means that the same amount of carbon dioxide would come out of a biofuels system as would go back into it.

Brazil, the world's leading producer of ethanol, has come closest to achieving such a system. Sugar cane is the country's main ethanol-producing crop. When juice is squeezed out of sugar cane, an energy-rich residue called bagasse remains. Bagasse is used to fuel the ethanol-production process. No external

fuels power Brazilian ethanol plants; all the processing energy comes from the sugar cane.

By contrast, U.S. corn-based ethanol production uses fossil fuels. Growing, harvesting, producing, and distributing biofuels requires fossil-fuel energy in the form of fertilizers and pesticides as well as gas and oil to power farm equipment and trucks for transporting the ethanol. Still, corn-based E85 made with current technology leads to a 40 percent reduction in fossil-fuel energy use when accounting for the entire production and distribution system, according to a study by the Argonne National Laboratory.

There is concern that as demand rises to meet federal policy requirements, production facilities may fall into environmentally unfriendly production practices. For example, one new corn-based ethanol plant in Iowa burns 300 tons of coal a day instead of using cleaner-burning natural gas.



### **Cellulose-Based Fuel Lowers Emissions**

Burning ethanol produces carbon dioxide, a greenhouse gas. Is a car that runs on ethanol-based fuel better or worse for the environment than one that runs on gasoline?

Studies show that overall, greenhouse-gas emissions from producing and burning corn-based E85 are 10 to 20 percent lower than emissions from producing and burning gasoline. However, cellulose-based E85 made from switchgrass, sugar cane, or paper sludge can reduce greenhouse-gas emissions by 67 to 89 percent. These materials require less fertilizer and fewer herbicides and pesticides than corn, wheat, and soybeans, which in turn means that less fossil fuel is used.

Cellulosic biofuels can also reduce ethanol-production costs. In the U.S., ethanol is more

*continued on page 12*

## Biofuels *continued from page 11*

expensive on an energy-equivalent basis than gasoline, largely due to the cost of the materials (corn). High-cellulose materials are cheaper. Less-expensive alternatives include waste products such as recycled paper, corn stalks and rice husks, and crops like switchgrass (a native prairie grass), or fast-growing poplar trees. Switchgrass can also prevent soil erosion and provide habitat for native wildlife.

Another advantage of cellulose-based crops is that they can grow on land that cannot support food crops. They can be raised over a much wider geographical area than corn or soybeans. With more local ethanol crops, places like Massachusetts would benefit from lower transport costs; currently, the closest ethanol-production plant is in Indiana. Fuel-ethanol crops produced locally would also increase local agricultural income, helping farmers stay in business.

### Federal Government Endorses Biofuels

In his 2006 State of the Union Address, President Bush talked about expanding biofuels research at the Department of Energy and set a six-year goal of

making cellulosic ethanol practical and competitive, with a potential of reducing Middle East oil imports 75 percent by 2025. An increase in ethanol production to 60 billion gallons, up from 3.5 billion gallons in 2004, would be required to meet this goal.

The main problem with cellulosic ethanol is that cellulose is fibrous and cannot be directly fermented. It must first be broken down into simpler molecules—an expensive process. However, a Natural Resources Defense Council report states that with mature technology, advanced ethanol-production facilities could produce significant amounts of fuel by 2012 at a price that is competitive with Energy Information Administration projections for gasoline.

Is it possible to make the switch and lessen our dependence on fossil-fuel products? Will we have to give up land dedicated to food in order to grow our fuel? The answer will depend in part on how many people are driving, how fuel-efficient their cars are, and how efficiently land is used to produce energy.

New Englanders may not yet have a choice of biofuels at their fingertips, but we should care about what they mean for our collective future. As Professor Lynd stated at a recent lecture for U.S. congressional staff, “Plant biomass is the only foreseeable source of food, organic fuels, and organic materials and thus an essential part of a sustainable world.”

*Emily Huhn is a staff member at the Center for Health and the Global Environment at Harvard Medical School.*



**Environmental Events** *continued from page 2*

marshes, and wet meadows with certified vernal pools. Sponsored by the Waltham Land Trust. Meet at the Elsie Turner Field, 421 Trapelo Road, Waltham. For more information, contact Karen Patterson at 781-893-3355 or [kpatters@walthamlandtrust.org](mailto:kpatters@walthamlandtrust.org).

**Sustainable Belmont Meeting.** Wednesday, September 5, 7 p.m.–9 p.m. Located in the Flett Room of the Belmont Public Library. Open to the public.

**Celebration of the Acquisition of Smith Point.** Sunday, September 10, 1 p.m.–3 p.m. (tentative time). Join the Waltham Land Trust on the shore of Hardy Pond to celebrate the organization's first land

purchase. There will be a re-enactment of the deed transfer, games, refreshments, music, and kayaking. Meet near the Lazazero Playground (Lake Street at Shore Road) in Waltham. Co-sponsored by the Hardy Pond Association. For more information, please call 781-899-2844.

**CRWA Brown Bag Lunch Series: Index Stream Flows.** Tuesday, September 12, 12:30 p.m.–1:30 p.m. Join the Charles River Watershed Association and Ralph Abele of the U.S. Environmental Protection Agency for an informal, in-depth discussion of index stream flows and the Charles River. Bring your lunch to CRWA's office at 190 Park Road, Weston (at the DCR Leo J. Martin Golf Course). Please RSVP to Rebecca Scibek at [rscibek@crwa.org](mailto:rscibek@crwa.org) or at 781-788-0007 x200.



## Sampling Little Pond *continued from page 16*

This time, more angry than disgusted, I decided to head upwind to look for the source. Next I noticed brown chunks floating in the water. Then I found a pipe pouring sewage into the Charles in front of MIT. I made some phone calls and talked to the Charles River Watershed Association. They appreciated my information and encouraged me to keep looking. The problem got fixed, and I appreciated that. They trained me on the proper techniques for taking water samples, and I systematically looked for and documented problems on the Charles River. Then I started sampling with the Mystic River Watershed Association.

**BCF:** What use is made of these water samples?

**Frymire:** The Mystic River Watershed Association gives water-quality data to the local towns. Our data helps towns to find and correct problems. Take this culvert, for example. It brings



*Roger Frymire sampling Little Pond. Photo by Sumner Brown.*

water from Spy Pond under Route 2. For years, the water flowing out here had toilet paper in it, along with high concentrations of bacteria. The water flowing into this culvert at Spy Pond was clean. There was clearly something wrong with Belmont's sewers in the short distance traversed by this culvert. Belmont found and fixed a broken sanitary sewer pipe. The bacteria count went down but was still high, and there was still toilet paper. Then Belmont found at least one illegal sewer connection. At least one house was using this culvert for discharging sewage. That was corrected recently. This sample should verify that the problems are fixed.

**BCF:** How often do you sample?

**Frymire:** That depends on what is happening. If a source is clean, one sample a year is adequate. If samples are dirty and a town is working to fix the problem, then more frequent samples are appropriate to tell if the work was successful.

**BCF:** How do you test the samples?

**Frymire:** This YSI-85 electronic meter tests for temperature, salinity, and dissolved oxygen. These measurements sometimes give some clues. If the temperature is elevated, then maybe someone is taking a hot shower and the shower water is leaking into a storm drain. The heart of testing is measuring bacteria concentrations. Labs do that. If just anyone wants a sample done, it will cost between \$25 and \$40 per sample. The Mystic River Watershed Association gets some of its lab work donated by the EPA lab in Chelmsford. Also, the association recently bought lab equipment that is at Tufts University, so we can now do our own lab work. This will allow us to expand our monitoring.

**BCF:** Where do you sample?

**Frymire:** I sample in the Charles, Mystic River, and Saugus River watersheds. This covers a lot of ground. I have sampled from hundreds of pipes.

**BCF:** Do local communities appreciate the information you provide?

**Frymire:** Yes and no. No one likes to be told that they have an expensive problem, but they appreciate documentation that verifies that they are fixing problems.

**BCF:** Why should someone who drive his SUVs directly into his garage, without setting foot on the ground, care about water quality?

**Frymire:** Belmont, like many local communities, is under legal pressure from the U.S. Environmental Protection Agency and the state Department of

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*If you have questions, please call (617) 484-1844.*

Environmental Protection to reduce the amount of sewage that gets into what should be clean water. This is an expensive problem. This is a problem that cannot be ignored, because of state and federal threats of legal action. We provide information that helps communities do what they must do. I hope that the information we provide saves Belmont money by helping Belmont make informed infrastructure decisions.



This is a persuasive argument for a Belmont taxpayer. At the May 2006 Town Meeting, Ralph Jones, chair of the Warrant Committee, said that the town urgently needs to spend \$14 million on our sanitary sewers. He was not joking.

We sample from only two pipes this day. Both samples look clean. Another pipe is underwater and thus flooded with lake water. Another pipe is dry. While we are there, Roger Wrubel, director of the Habitat sanctuary, and Doug Matson sample the Winn's Brook outflow as a coordinated part of the Mystic River Watershed Association (MyRWA) monitoring activities. Wrubel and Matson are members of the Belmont Uplands Advisory Committee and do sampling for MyRWA.

MyRWA sends water-sample results to local

communities first, for town officials to consider in private. Then, a month later, the results are released to the public.

But this time I get a sneak preview of the lab results. The water from the Spy Pond culvert that runs under Route 2 is excellent—clean enough for swimming. The other sample Roger took is not so clean: due to the presence of coliform bacteria, the water does not quite meet the Massachusetts standard for boating. This near miss is a considerable improvement over the previous sample from that location, though, which contained about 200 times as much bacteria. Between the samplings, Belmont's Department of Public Works repaired a collapsed sewer pipe nearby. Apparently, though, another sewer pipe is still leaking. The Winn's Brook water collected by Roger Wrubel and Doug Matson did not look good to me at the time, and the lab testing confirmed that it does not meet the state's standard for boating.

To find out more about the Mystic River Watershed Association, including old data, visit [www.mysticriver.org](http://www.mysticriver.org).

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

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*People Are Asking*

## Who Samples the Water in Little Pond?

*By Sumner Brown*

*Wednesday, June 14, a few minutes before 6 a.m.—*

I meet Roger Frymire near Little Pond, for a canoe ride. Roger is a volunteer who checks the quality of local bodies of water for the Mystic River Watershed Association. This morning, Roger has business on Little Pond. We put the boat in where Winn's Brook emerges from a culvert that runs beneath the Winn Brook neighborhood.

**BCF:** What is the plan?

**Roger Frymire:** We are going to paddle around the edge of the pond, and I am going to take water

samples wherever I see water entering the pond from pipes. But first, look at this! Carp gone wild! Today is carp-spawning day in Little Pond. Carp orgies only last about a day... The females are stuffed with eggs and are emitting pheromones. It drives the males wild. Here they are, splashing about with each other next to shore. I have had aroused carp jump into my boat and then flop out again...

**BCF:** Back to water sampling, why are you doing this?

**Frymire:** The Mystic River Watershed Association wants to clean up the water.

**BCF:** How did you get started?

**Frymire:** I was kayaking on the Charles River one day in the late nineties. At one point I smelled sewage, which was an all too common occurrence.

*continued on page 14*