Prehistoric Finds Could Affect McLean Plans

By Barbara Passero

Thousands of years ago, when the Charles River was more a tidal estuary than a river, a prehistoric people inhabited the area we now know as Belmont, Arlington, Waltham, Cambridge, and Watertown. The pristine and sometimes stark beauty of these forested hills, green valleys, fertile wetlands, gleaming ponds, and free-flowing streams was little changed until around 1600, when Europeans arrived. In 1614, the Massachuset Indians, living in twenty villages around the Boston Basin, numbered 3000. Just seventeen years later, decimated by white man’s diseases, the population dropped to 500. By 1800, no known groups survived. Yet traces of these early inhabitants remain.

The impending development of the McLean Hospital site, and the potential irrevocable loss of an important part of Belmont’s archaeological history, led Gayle Valiant, of the Belmont Citizens Forum’s Archaeology/Historic Preservation Committee, to write to the Belmont Planning Board. In April 2000, Valiant requested that the town require an archaeological impact study, including subsurface testing, before any further development of the McLean site. In her letter, she stated that “the need for the study is threefold: (1) to examine areas that have been indi-

cated as potential sites of archaeological significance, (2) to explore other areas that may be of archaeological significance, and (3) to ensure that subsequent development of these sites acknowledges, respects, preserves, and protects the integrity of any sites found.”

Valiant’s letter referred to other Indian sites in the immediate vicinity: “Indian artifacts have been found in the areas along School Street and Grove Street, as well as an Indian burial mound on property bordering Pleasant Street.” Several areas and streets

Summary: The Massachusetts Historical Commission has issued a permit for an archaeological study of the McLean Hospital property. If the land is found to be archaeologically significant, it could affect the timing or location of the development.
McLean Site May Have Been Winter Camp for

in Watertown and Belmont have been named after the Pequossette Plantation, an Indian settlement, and Trapelo Road and Mill Street were probably Indian paths. Trapelo Road is described on old maps as the “Cartway through the Pequossette Meadow.” A 1989 archaeological survey of Beaver Brook lists three prehistoric sites within the reservation there.

Ken Buckland of the Cecil Group, the town’s consultant on the McLean project, stated that Valiant’s letter “was one in a chain of requests for information” that led the town to ask for an archaeological survey. The Massachusetts Environmental Policy Act (MEPA) also stipulates that an archaeological impact study be prepared for any development project of this size.

According to Eric Johnson of the Massachusetts Historical Commission, a permit was issued last August to Public Archaeology Laboratory, Inc. (PAL), of Pawtucket, Rhode Island, to carry out an archaeological study of the site under contract from McLean Hospital. When the report is complete, McLean will be required to submit it to the Historical Commission, at which point it will be made public. But in order to protect archaeologically significant sites, the exact locations will remain restricted information.

PAL did a preliminary report on the archaeological possibilities of the McLean site about five years ago. While the peace and beauty of rural and semirural settings there were thought, during the nineteenth century, to be ideal for the “mentally disturbed and handicapped,” PAL’s report said that “this description of preferred site locations is essentially identical to those favored by early Native American populations.” The report makes reference to sites of prehistoric settlement near Spy Pond and Fresh Pond, as well
Prehistoric Native American Tribe

as “the Waverly Oaks A site located in the Beaver Brook Reservation immediately west of the McLean Hospital property.” In its recommendations, PAL said that “some areas of development may encompass specific areas of archaeological sensitivity and will need to be investigated further.” For example, PAL researchers found fragments of soapstone cooking vessels between 2500 and 3600 years old.

Finds at three sites

According to Peter Mair, project leader for PAL, researchers have discovered evidence of prehistoric activity at three locations on the McLean site. Some of the evidence consists of chipping debris from the making of sharp-edged projectiles. While no projectiles (also called diagnostics because they can be dated) have yet been found, the flakes indicate that arrowheads or spears may have been made there. Based on what researchers have found, Mair says, the McLean site may have archaeological significance that could affect development plans for the area.

When asked why the McLean site may have been important to Native Americans, Mair explained that it contains a spring, a ready source of fresh water. The Massachuset Indians may have used the area as a winter campground, and the Beaver Brook site, with its falls, for catching alewives during the spring season, he said. These Indians did make seasonal rounds, based on the availability of food and shelter. In warmer weather, they gathered in larger villages near the coast. In winter, they split into smaller groups and moved to hilly inland areas to find shelter from the wind as well as fresh water. (The name Massachusett is, in fact, an Algonquin word that means “at range of hills.”)

Tom Mahlstedt, of the Massachusetts Department of Environmental Management and formerly of the MDC, has carried out archaeological research on the Beaver Brook site. He pointed out that, depending on the nature of the development and what has been found, several different courses of action are possible. First, the subsoil of the area could be more thoroughly investigated. Second, the development could be moved to a different location.

Third, if the site proves to be important to both archaeologists and the developer, then a full-blown archaeological recovery project could be undertaken before anything is built on the land.

Further Reading:

Massachuset History www.dickshovel.com/massa.html

The Story of Belmont from Pequossette Plantation to the Town of Belmont, Massachusetts, 1630-1953, p. 9.


Public Archaeology Laboratory, “Context Statement and Archaeological Expectations: McLean Hospital, Belmont, Massachusetts.” Pawtucket, Rhode Island.


Barbara Passero is a free-lance writer, editor, and publications manager who lives in Belmont.
Briefs were filed last month in the Massachusetts Appeals Court on the rezoning of the McLean land. The principal issue is whether the agreements between McLean Hospital and the town of Belmont are illegal contract zoning and, more fundamentally, what exactly constitutes illegal contract zoning in Massachusetts.

Contract zoning is generally defined as a town’s agreement to rezone in a way that favors a developer in return for the developer’s providing benefits to the town. This kind of agreement is frowned upon, according to several authorities, as a “selling of the police power.” Police power refers to the town’s authority and responsibility to regulate a wide variety of matters (not just those restricted to the Police Department).

Nevertheless, some contract zoning is considered legal: for example, where a developer offers to provide money for street widening or traffic signals to mitigate the additional traffic caused by the development.

Two Massachusetts Precedents

The difficulty in Massachusetts is that the state’s highest courts have dealt with the issue of contract zoning only twice, each time in a case where the facts were different from those in Belmont. Judgments about whether particular conduct is or is not illegal contract zoning are based on the principles suggested by those two cases, or on examples from other states.

The Belmont litigation started when McLean sued the town in Land Court in July 1999, asking that the court rule that the rezoning of its land was not illegal contract zoning. The town, though technically the defendant, agreed with McLean on every point. Rather than allow the issue to go unargued, eleven Belmont property owners filed as interveners in the case. The Belmont Citizens Forum supported the interveners by raising money for the legal costs.

Last May, the Land Court judge, Mark Green, ruled that the rezoning did not constitute illegal contract zoning. In June, ten of the interveners appealed.

The appeal brief, filed by McGregor & Associates, attorneys for the interveners, said the two Massachusetts precedents limit the benefits the developer provides the town to amelioration of problems created by the development. In addition, the brief said, “the zoning change and [ameliorating] private restriction must be enacted and imposed separately and independently, and the private restriction must be imposed by the voluntary acts of the landowner.” Since the cemetery land, open space, land for affordable housing, and land to be sold to the Cosman family won’t be turned over to the town until the town has paid $1.5 million and approved concept plans for part of the development, those land transfers are clearly not independent, the appeal brief argued.

“While amelioration is proper and common, naturally, this does not mean that land use allowed by rezoning should be negotiated as a commercial transaction...,” the McGregor brief said. “It is not legal to ‘buy’ rezoning...The agreement between the Town and McLean is plainly about land transfers and cash transfers, all tied to plan approvals and permits, over time, like a joint venture. The overall process was a commercial negotiation. McLean needed to get a disclosed amount out of the deal, $45 million.”

Benefits Not Guaranteed

One concern the interveners raised in Land Court was the enforceability of the Memorandum of Agreement. Having changed the zoning to suit McLean, Belmont may not get the cemetery, open space, and other benefits it expected. Judge Green agreed: “By the very structure of the arrangements approved by the town meeting and Belmont voters, the possibility exists that all or some portion of the memorandum of agreement might be unenforceable, might be set aside (as in bankruptcy proceedings) or might not be realized for any one of a number of
other possible reasons; the rezoning amendment stands independent of all such contingencies.” That possibility, the interveners argued on appeal, was evidence that the rezoning is “against public policy” and should be overturned. If the Land Court decision is upheld, the brief argues, contract zoning will be legal in Massachusetts in virtually all circumstances.

In rebuttal, McLean Hospital’s brief argued that any challenge must establish that rezoning “is arbitrary and unreasonable as a matter of law.” The brief quotes approvingly Judge Green’s analysis of the issues: “First, did the undertakings incorporated in the memorandum of agreement exert improper influence on the town meeting to adopt the rezoning amendment for the benefit of McLean rather than in Belmont’s best interest? Second, does the memorandum of agreement furnish ‘extraneous consideration’ for the approval of the rezoning amendment, unrelated to the subject matter of the rezoning?” Like Land Court, McLean argues that there was no improper influence or extraneous consideration.

McLean said the Appeals Court should not be concerned with the enforceability of the benefits for the town: “Given that no breach of any element of the Memorandum of Agreement has occurred, the issue of its enforceability was not ripe for decision by the Land Court and is likewise not ripe for decision now.” The hospital urged the Appeals Court to join the Land Court in finding “that nothing in the Memorandum of Agreement ‘improperly influenced’ the Town Meeting members and the voters of Belmont to act ‘on McLean’s behalf rather than in the best interest of Belmont’ in enacting the rezoning.”

The brief filed on behalf of Belmont cites the fact that the promised benefits might not materialize as proof that the zoning decision was independent of those benefits: “As this brief is filed, the zoning by-law has taken effect yet, none of the consideration promised by McLean has been conveyed. In theory, McLean could now renege on its promises stated in the Memorandum of Agreement, yet the McLean District zoning by-law would remain in effect.”

The town concluded: “Appellants’ argument that the rezoning must be overturned as being against public policy should be rejected out of hand as an attempt to have a court substitute its judgment on public issues for that of citizens of Belmont.”

There’s a substantial backlog of undecided cases in the Appeals Court, now more than a year’s worth. No time for oral argument in this case has yet been set.

*Sue Bass is a Town Meeting Member from Precinct 3.*
McLean Construction Still A Year Away

Developers proposing to build on the McLean Hospital land still face several layers of review before construction can begin, and construction seems likely to be a year or more away, depending in part on the litigation schedule and in part on the timetable for the remaining reviews.

The first hurdle may be cleared soon. It is likely that applications to the Belmont Planning Board for site plan review from McLean and the three designated developers will be judged complete by the end of November. That will inaugurate a series of public hearings on the proposed developments. Belmont’s senior planner, Tim Higgins, predicts at least four – one on the overall project, followed by one on each development. Issues raised by the hearings may lead to additional public hearings later in 2001, before the Planning Board can complete the site plan reviews and approve the plans, Higgins said.

Meanwhile, McLean Hospital is expected to file an application soon to the state for review under the Massachusetts Environmental Policy Act (MEPA). That MEPA review could take six to nine months or longer. “If all goes well, the land transfers can occur some time next year,” said Frank Keefe, who has coordinated the development for McLean. “But that’s speculation.”

The three developers differed on whether the delays were a result of the litigation or the reviews.

Frank M. Stewart, president of Northland Residential Corp., developer of the townhouses, said, “It really does depend a great deal on the litigation.” He noted that major developments usually do involve much controversy and delay. “It’s just par for the course,” he said. Stewart anticipates that construction might start toward the end of next year or in 2002.

Frank Herold, who’s in charge of the McLean development for American Retirement Corp., developer of the senior community, predicted that construction will start no earlier than 2002 but said the litigation was not the reason. “Once we get our site plan approval – which is taking a little longer than we’d hoped – we’ve got a little over a year’s worth of marketing before we start building,” he explained.

“We’re not too focused on the litigation,” said Matthew Ross, managing partner of Belmont ValueRealty Partners, developer of the R & D complex. “We don’t really set expectations in terms of timing because a lot of it’s out of our control.”

On the timetable for the transfer of land from McLean to the town, town planner Tim Higgins said his personal guess was that it wouldn’t occur until all the litigation was settled. “I don’t see how they [McLean] can take the chance,” he said. “But it’s not my decision; it’s the lawyers’.”

—Sue Bass

Correction:

The cost of the recently completed renovations on Belmont Town Hall was incorrect in the September newsletter. The actual amount spent on the Town Hall was just under $2.5 million. An additional $300,000 has also been spent on renovating the Community Development office in the Town Hall Annex, for a total of $2.8 million.

Ann Oteri of Waverley Terrace was misquoted in our September issue regarding potential sites for a wireless antenna monopole in town. She is not in favor of a monopole on the McLean property; in fact, she does not want to see a monopole anywhere in Belmont.
Traffic Alert

You are invited to
a regional public forum on
problems and solutions

Thursday, November 16
7:30-9:30 p.m.
All Saints Church, Belmont
Brewster Hall, Corner of Clark and Common Streets

Panel of Experts
Presentations by:
Craig Leiner, Manager, Massachusetts Central Transportation Planning Staff
David Carbonneau, Senior Civil Engineer, Department of Public Works, Lexington
Alan McClennen Jr., Director of Planning and Community Development, Arlington
Susan Clippinger, Director, Traffic, Parking and Transportation, Cambridge
Tom Gatzunis, Director of Community Development, Belmont

Questions and discussion to follow.

Hosted by the Belmont Citizens Forum
Two-Step Review Required for Mugar Parcel at Alewife

Residents of Belmont, Arlington, and Cambridge who wanted a two-stage environmental review of the proposed development on the Mugar property on Route 2 have been granted their wish. On October 26, The Secretary of Environmental Affairs, Bob Durand, wrote that both a draft and a final impact report are required. The developer had requested a one-stage process.

The Belmont Citizens Forum, the Belmont Land Trust, the Town of Belmont, and State Rep. Anne Paulsen were among the more than 170 organizations and individuals who sent comments to Durand.

In his decision, Durand noted that the development proposal includes two 150,000 square foot buildings, ten or more acres of impervious areas (buildings and paved areas), alterations to the wetlands, and 1,145 parking spaces. Durand indicated that 3,000 more new vehicle trips per day will emanate from the site. The Lake Street and Pleasant Street exits on Route 2 would end up funneling commuters from the site into the Winn Brook area of Belmont and beyond.

The development is unlikely to proceed unless the Massachusetts Highway Department allows an access permit for new entrances and exits onto Route 2 westbound across from the Susse Chalet Inn and the Lanes & Games bowling alley. Durand’s decision may give Arlington an opportunity to negotiate the purchase of the property as open space.

- Jim Graves

Walkers to Promote

Residents interested in land conservation are encouraged to participate in a group walk on November 18 through some of the area’s still pristine green spaces. The excursion, which will take between three and three and a half hours, will begin at Habitat, a Massachusetts Audubon sanctuary located at 10 Juniper Road in Belmont, and continue through the McLean Hospital land, the Rock Meadow conservation area, and the Metropolitan State Hospital and Olympus Hospital properties in Waltham and Lexington. Hikers will cross Beaver Brook, amble through upland fields, woods, and meadowlands, stop at an abandoned graveyard, and carefully make their way through open marshland. The views will be spectacular.

This is a unique opportunity to see this land, much of which is not accessible by car, and to network with others who are interested in preserving a Western Greenway, from Alewife Reservation in Cambridge and Arlington, through Belmont, Waltham, Lexington, and beyond. A similar walk on October 14 attracted thirty-five residents of Waltham, Lexington, Belmont, Arlington, Somerville, Watertown, Cambridge, and Brighton. Among the walkers were State Representative Anne Paulsen, Waltham City Councilor Mike Squillante, Waltham Conservation Commission member George Darcy, Lexington Selectmen Cathy Abbott and Jeanne Krieger, and aides from the offices of State Senators Steve Tolman and Robert Havern. Many neighborhood and civic associations were also represented: Citizens for Lexington...
Western Greenway

Conservation, Waltham’s Hardy Pond Association, the Prospect Hill Park Advocacy Group, the Waltham and Belmont Land Trusts, the McLean Open Space Alliance, and the Belmont Citizens Forum.

Those who wish to join the November walk should arrive at the parking area at Habitat by 8:45 a.m. on Saturday, November 18, wearing long pants and comfortable walking shoes. The walkers will start promptly at 9 a.m. If you have questions, please call Richard Madden at (617) 484-8465.

See Stormwater Runoff at the Source

Naturalist Stew Sanders will lead walkers on a tour of the “triple divide,” the place where three different watersheds begin: Wellington Brook, Winn Brook, and Beaver Brook. Wellington and Winn drain into the Little River and are part of the larger Mystic River watershed. Beaver Brook drains down the other side of Belmont Hill into the Charles River.

Participants will hunt for small streams as they explore the McLean Woods and the Highland Farm area of Belmont. They will also discuss issues related to stormwater runoff, including a description of the proposed underground catch basins to be installed by developers on the McLean land.

Walkers will depart rain or shine from the Belmont Day School parking lot (at the end of Day School Lane off Concord Avenue) on Sunday, November 19, at 2 p.m. The walk is expected to last two hours. If you have questions, please call Sanders at (617) 489-3120 or, even better, email him at Ssandbird@aol.com. The walk is sponsored by the Mystic River Watershed Association.

Watershed Walk

Sunday, November 19
2-4 p.m.

Departs from
Belmont Day School
More on Cellular Antennas

By Sharon Vanderslice

Two readers of our September issue said they believed an article I wrote entitled “Cell Antennas: Coming to a Rooftop Near You” contained some misinformation. Here is further explanation on the two issues that were raised.

Q: Are there any proven health risks associated with cell phones or antennas?

Bob Gallant, a retired engineer and a Town Meeting Member in Precinct 8, wrote that “portable phones are indeed safe.” He cited an article published recently by the Institute of Electrical and Electronic Engineers, which disputed that there was any connection between cell phone usage and brain cancer. Anyone who continues to doubt the safety of these phones, he said, “can quit the use of portable phones or use an ear-plug extension, which keeps the portable antenna away from the head. However, one should not be concerned about the exposure from the radio towers.”

Gallant said that my article confused the radiation emitted by cell phone towers with the radiation emitted by the phones themselves. He wrote: “There is no question that the radiation from the cell phone towers will not cause any health problems since the exposure is about one one-hundredth to one one-thousandth from that source with a person located directly under a tower compared to the portable phone.”

“Folks have a right to be concerned about the visual effects of tower location,” he said, “but not the health effects.”

A: Reputable scientists disagree on the health effects of radio-frequency microwave radiation (RF/MW).

Current government standards are based on the premise that radiation is only a hazard if it causes heating in the body tissue. But there are many studies that show biological effects at non-thermal levels.

A New Zealand physicist, Neil Cherry, who has studied the work of over 600 researchers, concluded that health problems occur at less than 0.1 uW/cm² (microwatts per square centimeter, a measurement of power density). Last year, he wrote: “Epidemiology currently identifies the lowest observed adverse health effect level for RF/MW as 0.06 uW/cm² for cancer and reproductive effects, and 0.0004 uW/cm² for sleep disruption, learning impairment and immune system suppression.” Current FCC exposure guidelines are far higher than this.

After reviewing close to a hundred studies, Henry Lai, of the Department of BioEngineering at the University of Washington, concluded: “It is difficult to deny that RFR [radio frequency radiation] at low intensity can affect the nervous system.”

While there is no question that a person living in a building several hundred feet away from a cell antenna is exposed to radiation of a lower intensity than a person holding a cellular phone to the head, Lai found that with extremely low frequency magnetic fields, “lower intensity, longer duration exposure” can produce the same effect as a “higher intensity, shorter duration exposure.” With cell antennas, he said, “chronic exposure becomes an important factor.”

To Bob Gallant’s point, it also matters where a person is in relation to the antenna. Someone standing fifty feet beneath a directional antenna is exposed to far less radiation than a person who lives and works in the path of the beam—on an upper floor of a nearby building, for instance.

Another factor to be considered when assessing health risk is the frequency of the radiation (that is, the wavelength of the transmitted signal). Electric power lines put out very low-frequency radiation, police radios operate at a higher frequency, commercial wireless antennas are higher still, and X-rays, which everyone agrees have harmful effects, are highest. However, the way cell tissue responds to radiation can be non-linear with respect to frequency. Some frequencies, like those that approximate the human body’s own electromagnetic field, may be of more concern.

Absorption rate is another variable. Muscle
absorbs more radiation than bone. Cancerous tissue reacts more dramatically than healthy tissue. Certain prescription drugs increase absorption rates. Even different sections of the brain absorb radiation differently.

With so many variables, there is no one definitive study on the health effects of this radiation, although hundreds of studies have been done.

For now, Dr. Lai recommends “prudent usage” of this technology as a logical guideline.

Last April, the British government issued a report that said “it is not possible at present to say that exposure to RF radiation...is totally without potential adverse health effects.” The report recommended the following precautions: (1) wireless companies should avoid siting base stations near schools, such that their beam of greatest intensity falls on school property, without the agreement of the school and the parents, (2) phone companies should be discouraged from promoting the use of cellular phones by children, and (3) consumers should be provided with comparative information about specific absorption rates of mobile telephone handsets.

At an international symposium on this subject in 1998, many well-known scientists endorsed the Vienna EMF Resolution, which stated that “biological effects from low-intensity exposure are scientifically established” and public participation in the limiting and siting of base stations “should be enabled.”

Some activists in the Boston area are urging towns to adopt the “Precautionary Principle” when writing their zoning bylaws. Don Maisch of the EM Facts Information Service defines this as follows:

“The precautionary principle should guide decision-makers when confronted by potential threats to human health. The lack of full scientific certainty should not be used as a reason for postponing measures to prevent exposure to these potential threats. If measures generally reducing exposure can be taken at reasonable expense and with reasonable consequences in all other respects, an effort should be made to reduce exposures to a level below that which evidence indicates may be harmful to health.”

More detailed information on wireless technology and its effects is available on the Web.

**Further reading:**


*Continued on Page 12*
Cellular Antennas, continued from page 11


Q:  Are cellular antennas considered public utilities?

A:  Earlier this year, The Boston Globe ran an article about an Appeals Court case involving Nextel and the Town of Franklin, with a headline that read “Ruling declares wireless phone carrier not public utility.”

Public utilities are exempt from certain local zoning regulations, so the answer to this question is important.  Certainly EMS antennas used in the 911 system are public.  But what about commercial wireless antennas?  It’s not entirely clear.

Here is some background on the legal status of these facilities.  In 1996, the U. S. Congress passed the Telecommunications Act, which made it easier for wireless carriers to establish national antenna networks.  The Act made it illegal for a municipality to ban cell antennas within its borders or to favor one wireless carrier over another, but it did allow a municipality to put some restrictions on where these antennas could be placed.  Concerns about health risks, according to the Act, could not be used as a reason to deny an application, as long as the installation complied with FCC guidelines for emissions.

In January 1998, local zoning boards in Massachusetts lost some control when the state’s Department of Telecommunications and Energy (DTE) declared wireless companies to be public service corporations.  Now, if a wireless company has an application denied by a municipality, it may appeal the decision to the DTE.  The DTE then has the power to (1) find that local restrictions were misapplied and allow the installation to proceed or (2) overturn the local zoning ordinances all together.

Earlier this year, State Senator Susan Fargo proposed an amendment to the budget bill that would have reversed this 1998 order and restored power to the municipalities.  The amendment was passed by the State Legislature, but was vetoed by Governor Paul Cellucci.

As it stands now, each town in the state can pass its own bylaws regarding antenna placement, but which bylaws will be upheld and which will not is uncertain.  As one DTE employee said, “The law around wireless is really evolving.  There are a lot of gray areas.”

Last spring, Nextel was required to remove a 120-foot tower it had erected on a private parcel in Franklin when townspeople objected.  The tower exceeded the town’s 35-foot height limit for a residential neighborhood.  The town argued that the wireless company was not a public utility and was therefore subject to municipal zoning regulations.  The state Appeals Court found in favor of the town.  Other cases remain undecided.  The town of Concord, for instance, has been sued by a wireless company over zoning regulations the company considers too restrictive.

At the federal level, the Telecommunications Act of 1996 is being contested.  A national coalition of grass-roots groups has filed a brief with the U. S. Supreme Court, challenging the FCC’s jurisdiction over health issues.  For the latest on this case, check http://www.EMRNNetwork.org and click on Action Alert.

Pleasant Street ReDesign Project

The Massachusetts Highway Department will conduct a public hearing to present and discuss this project.

Tuesday, November 21
7 p.m.
Town Hall Auditorium
New Regulations Drafted for Biotech Research

By Lynne Cook Polcari

On Tuesday, November 14, the Belmont Biotechnology Advisory Committee, a subcommittee of the Board of Health, will hold a public hearing to present its new regulations to the town citizenry.

Knowing that the town may soon have 150,000 square feet of commercial research and development space on the McLean land, committee members were charged with creating a new set of rules dealing with the biotechnology industry. Belmont currently has only minimal regulations, and the Board of Health believes it prudent to update them.

The group began work in April of this year, and has spent the ensuing seven months creating a document that regulates the use of Recombinant DNA Molecule Technology and Non-Recombinant Infectious Agents. The new rules apply to any activities associated with constructing, propagation, handling, synthesizing, or storing recombinant DNA (rDNA) or RNA (rRNA) molecules; any plants, animals, bacteria, or viruses containing rDNA or rRNA molecules; and other non-recombinant infectious agents.

The Biotechnology Advisory Committee grappled with many issues during the process of writing these regulations. Of primary importance was the need to protect the citizens’ health and welfare, while creating regulations that were fair and reasonable.

The major issue was what levels of research to allow in Belmont. Biotechnology research is classified as Bio-levels 1, 2, 3, 4, as defined by the National Institute of Health. Levels 1 and 2 are generally considered to be low-risk, while 3 and 4 permit work with more dangerous pathogens. Opinion was divided at various points as the group considered the pros and cons from all angles. Ultimately, the decision was made to restrict research in Belmont to Levels 1 and 2.

The new rules are considered more restrictive than those of surrounding towns. This is because they also regulate infectious agents. Many of the surrounding communities have regulations that deal only with Recombinant DNA molecule technology. The Biotechnology Advisory Committee felt it was important for the town to know exactly when infectious agent research is to be performed in Belmont, and make sure that the companies are in compliance with our safety standards.

The members of the committee are Michael Baram, Linda Wolfe, Christine Blazynski, James MacIsaac, Mariana Nacht, and Stephen Hale. Donna Moultrup of the Board of Health serves as clerk.

This group has taken great pains to create regulations that are comprehensive and that, first and foremost, protect the health and welfare of Belmont residents.

Lynne Cook Polcari is a Town Meeting Member from Precinct 8.
Sewers, continued from page 16

Road. The construction workers ran into terrible ledge—rock that would have required extensive blasting—and stopped. That seemed to be the end of Belmont’s plans to extend its sewer lines.

The decision left several hundred households without sewers, a number that has been gradually reduced as people within reach of sewer mains connect up. Some have even gotten easements to lay pipe through neighbors’ property to reach a main. However, about 175 Belmont households are still not connected, many of them within the 100-foot buffer zone of a brook or wetland.

Sometimes the cost is the problem. A Kendall Gardens woman who asked not to be named has a town sewer line running past her house, which abuts conservation land, but she cannot afford the cost of running a pipe from her house to the street. Since she’s not hooked up, she also avoids paying sewer charges, which are high to cover the Massachusetts Water Resources Authority’s new treatment system to clean up Boston Harbor. She said she pays about $60 a quarter for water and $75 to $100 once a year to have her septic tank pumped out. In comparison, she said, other families are paying over $200 a quarter in water and sewer charges.

The woman said she was confident her septic system wasn’t polluting the conservation land. “It’s tested once a year [when the tank is pumped out,] so I know it’s OK so far,” she said.

Others within the wetlands buffer zone say Belmont officials have made no effort to encourage them to switch to public sewers. Jerome Kagan, who teaches psychology at Harvard, has a town sewer line running past his Clifton Street house. “The town has never approached me to hook up,” he said. If it did, he probably would, because his septic system is an old one. “It’s ready to go,” he said.

However, only about 30 of the 175 households without sewer connections could easily hook up to the town’s gravity sewer system, estimates Tom Gatzunis, director of Community Development. The rest can’t use a gravity system, he said. For example, the houses on one side of Marsh Street are higher than the road and can use gravity to get down to the sewer main in the street; but the houses on the other side are lower than the road, he said. They must use a pump to force the sewage up to the main.

Even Snake Hill Road, which you’d think would certainly be able to use gravity, cannot. Where the slope is too great, the liquid flows faster than the solid material, leaving it behind. A gravity system on Snake Hill would require many switchbacks along the street to slow down the liquid. But Glenn Clancy, assistant director of Community Development, said Snake Hill could use a pump and force main because those can be designed to pump down hill.

For those in urgent need of sewer connections, there’s now another possibility, a grinder pump system, which works something like a garbage disposal. The material that flows out of the grinder and is pumped into the sewer pipe has the consistency of mud.

“These systems have inch and a half pipes which can be run up hills, around ledge, and generally in a much more shallow trench than a standard gravity system,” explained Health director Donna Moultrup. A contractor has signed up a number of households to share the cost of running a pipe down the unsewered part of Concord Avenue, at no expense to the town.

Mike Phillips, the former owner of 653 Concord Avenue, was forced to become a prime mover in bringing this system to Belmont after the cess pools for his house and an adjoining one failed inspection. “A septic system didn’t seem cost effective,” he said. “If you look at the cost of everyone fixing their septic systems it would be much more than just putting in a sewer.”

— Sue Bass

Sewer Separation Project To Be Discussed

Those concerned about water quality and flood control around Alewife Brook may want to attend two public meetings on Combined Sewer Overflow (CSO) in the area. The City of Cambridge and the Massachusetts Water Resources Authority (MWRA) are sponsoring the meetings to discuss revisions to the sewer separation project, which has disrupted traffic flow at the Fresh Pond Rotary for months.

Apparently, so much stormwater has been running through the old pipes that sewage has been
We need you.

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

I can devote time to:

- Archaeology & Historic Preservation
- Environmental Protection
- Planning & Zoning
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Sewer Separation, from page 14

overflows into Fresh Pond, which holds drinking water for the City of Cambridge. To prevent this, Cambridge and the MWRA want to run an additional pipe to drain stormwater into Alewife Brook. Plans call for the water to be filtered and dispersed gradually.

Additional flows in the area may actually help river herring to thrive there, says Belmont naturalist Stew Sanders. But some, concerned about flooding, are skeptical of the plans. Stormwater may contain oil that has leaked from cars, roadside litter, garbage from restaurant dumpsters, lawn pesticides, and other contaminants.

The meetings will be held November 15 and November 30 from 7 to 9 p.m. at the Best Western Homestead Inn, 220 Alewife Brook Parkway (at the Fresh Pond Rotary). Free parking is available at the hotel.

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Forum Team Sputters in Charity Spelling Bee

The spelling team of the Belmont Citizens Forum resolved to study harder next year after stumbling over a couple of rarely heard words at the Foundation for Belmont Education’s annual spelling bee on November 3. The team members also planned to get team T-shirts for the next bee, as many of this year’s entrants had, until they noticed that the winning Burt Family team didn’t wear them.

The Burts — Carol, Frank, and John — beat out the Belmont High School PTO Orthographers in the final round by correctly spelling the word *nystagmus*, the involuntary oscillation of the eyeball. Painfully, the Forum team, by then sitting in the audience, also spelled the word correctly.

The Forum team was out after misspelling *tardigrade*, slow in pace or movement, and *kaumographer*, a word sensibly omitted from my unabridged dictionary because virtually no one ever uses it.

The team, already hard at work studying new word lists, is Cary Lord, a political philosopher who studied Greek and Latin; Eva Patalas, a pathologist who can spell *formaldehyde* because she uses it by the gallon; and Gerry Polcari, a tax lawyer with a major in government gobbledygook. Better luck next year!

- Sue Bass
People Are Asking

Why Isn’t All of Belmont Served by Sewers?

On my morning walks, I often go up Somerset Street to Habitat, and every spring and summer for the past few years, I’ve seen people building septic systems. One year it’s these two or three houses; the next year it’s another two or three houses. Wouldn’t it be easier, cheaper, and better for the environment if instead the town simply put in a sewer line for all these houses? The property owners would have to pay for it, of course; but if they knew a sewer was coming they wouldn’t have to invest in an expensive septic system, costing $20,000 to $50,000 and sometimes much more.

One year I watched construction on Howells Road, a block away from Somerset, where a property owner had to tunnel under a brook to reach a sewer line on Fletcher Road. It seemed crazy to put a sewer line under a brook. And the only reason it was necessary is that there’s no sewer main along Somerset. If a main did run on Somerset, it could easily be extended out Howells Road, catching all the people along that street.

All these new septic systems and extraordinary efforts to reach sewer lines are a result of a major revision in the state’s sanitary codes, effective in 1995, designed to stop leaking cess pools and septic systems from polluting Massachusetts’ brooks, rivers, and harbors. The law, known as Title V, requires inspection of cess pools and septic systems at various times, including whenever the house is sold. If a system doesn’t pass the stringent new rules, the property owner must install a new septic system or connect to a public sewer system.

You’d think an older town like Belmont would be 100 percent sewered. Until about 15 years ago, that goal seemed in sight. But the town’s last sewer main was built in 1985, on Mill Street. Shortly afterward, the town tried extending the sewer main that runs up Concord Avenue, which stops less than two blocks up the hill, before reaching Old Concord

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