



How Can Belmont Use the McLean Barn?

By Carl Solander

How can Belmont use the McLean Barn? The Land Management Committee of Lone Tree Hill (LMC), in consultation with the Belmont Historic District Commission, is seeking ideas to give new life to this remnant of Belmont's agricultural past.

The McLean Barn, also known as the Brick Barn at Rock Meadow, was conveyed to the town in 2005 by McLean Hospital following the 1999 agreement that created the conservation land now known as Lone Tree Hill. The barn has been unused since

that time, patiently awaiting the next chapter in its long life.

In 1892, as the central McLean campus was under construction, the hospital purchased the acreage on which the barn currently stands from the Kendall family. This land was already an active dairy farm and had a small orchard. The barn was constructed circa 1915 near the original Kendall Farmhouse (since demolished) and was likely originally used as a stable. Over the next few decades, McLean purchased adjoining farmland, resulting in a working farm of more than 70 acres. According to



JEFFREY NORTH

The McLean Barn.

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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.

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historical accounts, in the years before World War II, McLean's farmland produced almost all food consumed on the property. A significant harvest of fruits and vegetables was raised along with pigs and cows. Water was sourced locally, and flowers were grown in two greenhouses. McLean made its own ice, generated its own power, and had an upholstery shop for producing clothing and linens, a blacksmith forge, and a bakery. The old brick barn is a utilitarian structure that was built to serve the essential everyday needs of this self-sufficient institution.

World War II brought about the end of the McLean Farm as a working farm.

World War II brought about the end of the McLean Farm as a working farm. Labor shortages and subsequent rising wages made the continuing operation of the farm financially impractical. According to the site's National Register of Historic Places nomination form, "The 1927 Belmont Atlas shows the [Kendall] farmhouse, two stables, a stone crusher, cow barn, dairy barn, silo, and two piggeries, with a pump house at the far west corner of Beaver Brook."

The McLean Barn is the only one of these agrarian structures that remains standing. In 1968, Belmont purchased most of the McLean Farm and created the Rock Meadow conservation area. The barn and the four and a half acres around it remained part of McLean, its use shifting from agrarian to storage and maintenance functions.

The Brick Barn's beauty

Built of concrete, steel, stone, brick and timber, with most of its original construction still intact, the barn is a fantastic living record of the various building technologies, styles, and techniques in use at the turn of the 20th century.

The barn may be a utilitarian structure, but it is a particularly robust and attractive one. The exterior is mostly composed of English bond red brick with

a random fieldstone foundation wall below the first floor. The barn features many cut and cast stone details: quoins at the corners of the fieldstone walls, window lintels and sills, and a water table course which transitions the fieldstone walls to the brick above.

The roof is composed of black slate shingles, likely sourced from the highly regarded slate quarries of Monson, Maine. Two original sheet metal louvered monitors sit atop the ridge and provide ventilation for the loft. Original wood details articulate the roof overhangs, with exposed rafter tails, a wood frieze, and overhanging rake. Original wood sash windows are still intact, although currently boarded up. One of the barn's defining features is a brick keystone arched window centered above the large sliding wood barn door facing Mill Street.

The interior features large open spaces and industrial finishes. As it is built into a slope, both the basement level and first floor can be accessed from ground level. This would have been useful for moving animals and equipment during its days as a stable and maintenance facility. In the future, this advantageous siting could allow both levels to be accessible to wheelchair users. The floors and ceilings of the barn are exposed concrete. Large

timber and steel trusses span the loft which sits under the timber-framed roof. A large hole in the first-floor ceiling once provided an opening for a vertical lift or hoist.

The Brick Barn's recent history

After its conveyance to the town in 2005, the barn remained boarded up in a state of abandonment. It suffered from break-ins, graffiti, and water damage.

In 2018, a project to repair and stabilize the barn was initiated by the Land Management Committee of Lone Tree Hill, the Office of Community Development, and the Historic District Commission. A Community Preservation Act grant was awarded by a Town Meeting vote in May 2018. The first phase of this plan, which served as the basis for the stabilization project, focused on the repairs deemed most essential to stabilize the barn and prevent its further deterioration. These repairs were focused largely on making the exterior envelope water-tight and secure against intrusion.

The stabilization work was executed during the second half of 2019, including graffiti removal, cleaning and repointing of masonry, replacement of degraded steel lintels, removal of deteriorated gutters, repair of wood trim, roof repairs, anti-graffiti coating applied to masonry, cleaning up

and regrading of the site surrounding the barn, new electrical service, installation of security cameras, and painting and replacement of plywood boarding for windows and doors.

In its current state, the barn is not move-in ready. Depending on the use, it will require new infrastructure such as lighting, heating, and plumbing. It will need landscaping, new finishes, insulation, repairs



The Brick Barn's front after cleaning, 2019.

to windows and doors, and possibly accessibility upgrades and sprinklers.

The barn's future

While the barn is looking better after this stabilization work, a lingering question remains: what will be done with it? The Lone Tree Hill conservation land, including the barn, is governed by a conservation agreement. The barn is specifically cited in the 1999 Memorandum of Agreement which led to the creation of this public open space. Attachment B-1 Conservation Restriction states: "The historically and architecturally significant Barn located at 248 Mill Street may be renovated (including new infrastructure), used, and maintained for such uses as environmental education, the storage of materials and equipment associated with management of the Premises or management of the cemetery area, and office space for staff of the cemetery and/ or the Premises." This would seem to severely limit the possible uses for the barn.

The barn also seems to offer a much larger space than these specific uses could occupy. However, there are potential avenues for loosening this restriction, should the community come to a consensus on a compatible use not specifically cited in the original agreement. In late 2019, the Land Management Committee was poised to contract with a facilitator who would initiate a community conversation about possible uses for the barn. Then, as we all recall, the world shut down for a time. This initiative, like the barn, was mothballed.

In the summer of 2023, the Land Management Committee intends once again to solicit facilitator

proposals and contract with a facilitator to initiate a public conversation about the future of the barn. The Land Management Committee looks forward to engaging with the residents of the town about the future of the barn.

Other nearby communities have successfully found new uses for town-owned historic properties that may serve as inspiration. In Lincoln, the town-owned Codman Community Farm preserves the structures of a historic working farm. These historic buildings (and additional land holdings) have facilitated a sustainable community farming operation run by a nonprofit organization. This pairing of preservation and community needs maintains a connection between the modern town and its agrarian history and has become a defining feature of Lincoln for many residents.

In downtown Arlington, the town-owned Whittemore Robbins House is a restored mansion originally constructed in 1800. The town acquired the house in the 1930s. Over the years, this mansion has housed many town offices, and in 1996, it underwent a substantial refurbishment which included accessibility upgrades. Currently the house's main function hall is available to rent for private events. Also in Arlington, the historic Jefferson Cutter House, acquired by the town, was converted to a museum to house the work of local artist Cyrus Dallin along with additional gallery and function space for temporary exhibitions and events.

The zoning for the open space district in which the barn is located and the terms of the conservation agreement suggest that appropriate uses for the barn will be non-commercial in nature and related to the functions and needs of the Lone Tree Hill conservation land or the Highland Meadow Cemetery. However, other compatible uses may be considered that relate to the historical context of the barn as part of a self-sustaining institution rooted in New England's agrarian past.

The specific context of the barn and the conservation restriction that governs it are unique challenges which will require imagination, engagement, and—above all—sources of funding and dedicated collaborators willing to invest in bringing this historic building back to life.

Carl Solander is the ex-officio Historic District Commission representative on the Land Management Committee for Lone Tree Hill.



JEFFREY NORTH

Opinion **Parking, People, and Money**

By Max Colice

A typical parking space takes up about 300 to 350 square feet. In Belmont, if you want to open a retail business or office, you'll need one parking space per 250 square feet of retail or office space. That's right: in Belmont, your parking lot will have to be bigger than your business. If you want to open a restaurant, you'll need one parking space for every two seats. Again, that's more land for parking than for people.

Providing all of this parking makes opening a business in Belmont more expensive than it should be. Consider how these requirements affect restaurants: a restaurant with 120 seats will need 60 parking spaces. If that restaurant serves lunch and dinner, six days per week, it might expect to be at full capacity for a total of five to six hours per day, or 30 to 36 hours per week. At most, those parking spaces will be completely occupied no more than 25% of the time. That restaurant will be paying for empty asphalt the rest of the week.

Likewise, minimum parking requirements, or parking minimums, make building a home more expensive than it should be because Belmont's zoning bylaw requires two off-street parking spaces for every house, condominium, or apartment with two bedrooms or more and one off-street parking space for each one-bedroom and studio condominium or apartment. In addition to the building and the land for the building, the new homeowner must pay for parking spaces whether or not they plan to use them.

These parking minimums drive up the cost of housing. They also run counter to the spirit of the upcoming changes to Belmont's zoning laws, which are intended to encourage multifamily housing development near public transportation stations, pushing people off the roads and onto public transportation.

Consider how parking minimums will affect Belmont when the zoning bylaws change to allow at least 1,632 new multifamily housing units. Under Belmont's current zoning bylaw, if each of these new units has two bedrooms or more, then each unit will need two off-street parking spaces, for a total of about 22 acres of new parking.

Parking minimums are also a tremendous drag on Belmont's property tax base and its property

tax revenue. Belmont has a finite amount of land. To maximize its property tax base, Belmont should seek to promote valuable—and more profitable, from a property tax perspective—use of that land. But Belmont's zoning bylaws force property owners to build parking, which is not valuable, instead of commercial or residential buildings, which generate much more property tax revenue.

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In addition off-street parking must be served by public roads, which are expensive to build and maintain. Off-street parking also encourages driving, which in turn causes roads to wear out faster. By requiring a minimum amount of off-street parking for each new home or business, Belmont's zoning bylaws depress property tax revenue and incur unnecessary cost.

How can Belmont improve its situation?

The most radical approach would be to eliminate parking minimums by changing the zoning bylaw so that it no longer requires any off-street parking. A less drastic approach would be to amend the zoning bylaw to allow off-street parking within the same lot, adjacent shared parking lots, and nearby on-street parking spaces to count toward minimum parking requirements. Town Meeting could make these changes with a simple majority vote.

Belmont could also allow residents and their guests to park on suitable streets overnight. Boston,

Cambridge, and Somerville all allow overnight parking for residents; why not Belmont? Allowing on-street parking would free up land for residential and commercial use. It would also make streets safer by reducing traffic speeds and providing a buffer between sidewalks and moving traffic. Like Cambridge and Somerville, Belmont could even charge for annual resident parking permits—selling permits for \$25 apiece could generate hundreds of thousands of dollars of revenue every year.

Again, Town Meeting could make these changes with a simple majority vote.

Belmont's zoning bylaw requires restaurants and other businesses to provide more space for parking than for people. It also mandates a minimum amount of off-street parking for new homes. These requirements increase costs for homeowners and businesses. They also cost the public, both in terms of lost property tax revenue and higher infrastructure expenses. Ending minimum parking requirements would free land for more productive use and reduce costs for Belmont taxpayers.

Max Colice is a Belmont resident and a member of the Vision 21 Implementation Committee.

Porchfest Returns!

By Mary Bradley

Belmont's Porchfest has carved out the Saturday following Labor Day for our town-wide celebration of local talent showcasing their music and art prowess on porches and in yards throughout town and at Town Green. This year, the event will be on Saturday, September 9, 11 AM-6 PM, rain date Sunday, September 10. A schedule of performances is posted on www.belmontporchfest.org and a link to a Google map will be posted on Facebook and Instagram in September.

Mary Bradley is the founder and executive director of Belmont Porchfest.



RACHEL BEUSEE-KAUFFMAN

Belmont Will Phase Out Gas Leaf Blowers

By Marina (Goreau) Atlas and Karen Cady-Pereira

In recent years, Belmont residents have become acutely aware of the roar, fumes, and particulate dust emitted from two-stroke gas-powered leaf blowers. A new town policy will soon change the use of gas-powered leaf blowers that emit cancer-causing particulates, send out winds that can exceed Category 5 hurricanes, and stir up everything from road dust to pollen to particles left behind from Muffin and Fido's morning walk. This policy is an important step to improve our relationship with lawns and encourage healthy landscapes that enhance our quality of life.

From May 15 to September 30, using gas-powered leaf blowers for commercial uses is banned town-wide. The bylaw, also known as Article 12, was voted on and approved at a special Town Meeting session on November 29, 2022. Created with input and endorsed by residential groups, town officials, environmentalists, and landscapers, the bylaw will enact several changes now and over time to improve both air quality and quality of life in Belmont without causing undue harm to businesses that operate locally.

Gas-oil blowers will be fully sunsetted by 2026, when using gas-powered leaf blowers in Belmont will be illegal. Immediate limits include allowing no more than two units for most properties, including non-commercial users, and no more than four on larger lots (depending on size). Some people may be wondering how this policy will help residents and workers alike without causing undue burdens.

Gas leaf blowers reduce air quality

Gas-powered leaf blowers contribute to poor air quality and only last a few years. Workers are at the greatest risk of hearing loss and toxic exposure from these tools. As the machines that are currently in use start to die, options like electric tools, which improve yearly and are already used by residents in Belmont on multiple lots, are easy to replace by taking advantage of local incentives.

Town-wide acquisition of gas leaf blowers will also cease moving forward. Alternatives like rakes and no-till flowerbeds are solutions for people wishing to try a different approach to land management and yard upkeep. Electric blowers and rakes open the door to new solutions—and old

ones that are good for people, pets, and pollinators. These options will allow businesses to immediately improve the noise and air pollution aspects while minimizing burdens on landscaping service providers and improving working conditions.

Gasoline-oil-fueled two-stroke engines used in leaf blowers are incredibly dirty, emitting a toxic mix of nitrous oxides, carcinogenic hydrocarbons, and ultrafine, ultralight particulate matter.

Gasoline-oil-fueled two-stroke engines used in leaf blowers are incredibly dirty, emitting a toxic mix of nitrous oxides, carcinogenic hydrocarbons, and ultrafine, ultralight particulate matter. One study found that the amount of hydrocarbon air pollutants emitted by running a gas-powered leaf blower for 30 minutes is equivalent to driving a pickup truck at least 1,500 miles from Boston to Jacksonville, Florida, and releasing the exhaust into one location. Furthermore, the hurricane-force wind speeds of all leaf blowers loft allergens and debris like fecal matter and fine particulate matter like brake dust into the air, desertifies soil, and damages the roots of plants.

Under the new bylaw, homeowners are responsible for asking landscapers to switch to other methods. The newest electric leaf blowers are capable of powerful and quieter air movement but without the low-frequency noise that travels far and causes permanent hearing loss and other combustion-related health harms. Electric blowers also do not emit carcinogenic emissions; personal



protective equipment is typically inadequate for worker protection.

Gas-oil leaf blowers impoverish the soil

The air forced from blowers destroys the upper structure and habitat of the life that teems in our soils and makes plants thrive. This layer supports bacteria and fungi and housing for beneficial insects. Healthier soil, ecosystems, and food webs require less intervention in your garden, thus making your yard more sustainable. Easing “mowing and blowing” and encouraging the building up of new, undisturbed organic matter layers on soil surfaces improves ecological health. It can be a boon to human health too.

Two-stroke engines harm health

The two-stroke engines used by gas-powered leaf blowers emit noise pollution at magnitudes of up to 115 decibels, surpassing even rock concerts and chainsaws. You may have experienced this shroud of low-frequency noise while walking past a working crew or if using a gas-powered leaf blower yourself with no ear protection, or several houses or even blocks away without sufficient shrubbery to dampen the roar. These tools can cause permanent hearing loss for anyone nearby after even short-term uses.

For reference, the National Institute for Occupational Safety and Health lists noise at 85 decibels or above as hazardous to human health. Subsequent noise pollution is associated with both hearing loss and multiple stress-related illnesses in humans and wildlife alike. Health experts articles

in multiple medical journals provide strong evidence that high levels of noise, such as from two-stroke blowers, not only damage hearing but also lower cognitive function and impacts systemic health across age groups (memory, attention, performance, motivation, heart, lung, blood, and brain) from the mental to the physical.

A switch to old-school raking can provide even more benefits like physical activity, peaceful quiet, and zero emissions, including eliminating those that

damage the heart, lungs, brain, and circulatory systems. You can also try newer methods of land stewardship. Each step from “lawn to life” can improve garden health and make landscaping service work more interesting and free of the dust and noise that harms health while on the job.

Try sheet mulching with no-dig and no-till methods or more modern soil remineralization amendments which can be combined with these methods. These choices can increase soil-based carbon sequestration through biogeochemical remineralization and filter out pollutants from stormwater runoff in a new or expanded garden bed.

A small change in your gardening practices or your landscaping services can improve and build soil, highlighting existing open space. You can use your lot as a new location to store leaves (or tuck in layers of uncolored cardboard, leaf mold, and compost) and allow the breakdown products to build and feed the soil, reduce plant stress, create space for native plants, provide songbird health food, and support biodiversity that greatly bolsters our health. Other benefits of these techniques range from improved mental health from greater access to nature to improved air quality through eliminating toxic, two-stroke leaf-blower emissions, which can improve health and quality of life and increase property value.

Everyone has a right to a healthy environment

This right includes freedom from undue hazards where you live, work, and play.

Residents and landscape service providers who have experienced two-stroke blower emissions exposure and residents impacted by nearby noise, fumes, and dust will get a break from these annoyances this summer. You may soon see your neighbors talking with landscaping companies about how to take advantage of Belmont Light's rebates for the newest and most advanced electric leaf blowers without trying to talk over several leaf blowers.

You might also see residents pulling out their rakes and enjoying speaking with neighbors, making new friends, and spending time outside in their yards. Until recently, people who live or work in Belmont, particularly people like those who spend time outside, had to put up with leaf blower noise and pollution. Everyone will soon have more opportunities to breathe fresh air and enjoy peace and quiet each time they open their windows.

The bylaw will apply to everyone beyond just commercial operations in 2026. That gives homeowners and residents plenty of time to try extending a garden bed, adding more native plants to the landscape, and putting in requests with your favorite landscape service provider to boost your curb appeal, mood, and health. For reference, the town will maintain a list of landscaping companies that have agreed to adhere to the policies enacted by the bylaw.

This new policy is supported by incentives for landscapers who operate in Belmont. So if you still hear the din, roars, and hums of a leaf blower fleet making the rounds, please consider taking the opportunity to talk with your neighbor about the bylaw that improves air quality for residents and safety for landscape service providers at work.

Thank you to the Select Board members, Town Meeting members, and environmentalists, and landscaping companies for your support of this bylaw to help make Belmont cleaner, quieter, and healthier. Special thanks to Ian Todreas, Jean Devine, and members of the Healthy Lawns group at Sustainable Belmont.

Further information

You can read more at: www.belmont-ma.gov/departments-of-public-works-dpw/pages/leaf-blower-bylaw-information

The full text of the town bylaw can be found at www.belmont-ma.gov/departments-of-public-works-dpw/pages/leaf-blower-bylaw-information

Marina (Goreau) Atlas is an advocate for ecosystem regeneration and environmental health, a native plant gardening enthusiast with a background in environmental health and toxics, and a Belmont resident.

Karen Cady-Pereira is a long-time Belmont resident who works in remote sensing of the atmosphere. She would like to be able to enjoy walking around the town without the noise and pollution created by gas-powered leaf blowers.



JEFFREY NORTH

New England asters at Lone Tree Hill.

How to Get Your Garden Through Summer Heat

By Sarah Wang, Kim DeAndrade, and Jean Devine

By this point in the summer, your water barrels may be dry and you may be devoting inordinate amounts of time (and money) to watering. No matter how much you water, it cannot compare to real rain. Here are some tips to help with drought:

Mulch!

Besides retaining moisture, mulch will feed the soil and keep down the weeds.

- Avoid dyed mulch. It is unregulated and may contain shredded construction wood waste and pressure-treated wood. And, it won't do much to feed the soil.
- If you buy mulch, consider compost and leaf mold. These mulches are light enough to allow for ground-nesting bees. Please be aware of the possibility of contamination by the invasive jumping worm. Ask about management techniques at the store; has the mulch been heated to kill the eggs and do they keep bags off the ground to prevent further infestation?



Pussytoes (*Antennaria parlini*)



Barren strawberry (*Geum fragaoides*)

- You can make your own mulch: mulch in place or “chop and drop.” Deadheading and pruning materials can be cut smaller and dropped in place. Grass clippings and pulled weeds also work, but be sure to throw away any flowering potential to avoid any chance of seeding, and throw away all invasives (black swallowwort, for example). This method will feed your soil and save you the work and added expense of hauling garden waste away only to have to haul mulch back.

The more you let nature be, the healthier the habitat you build. So adopt a front to back “mullet” approach for your garden beds: all business in the front (more neat and manicured where you can see it) and party in the back, where nature can relax a little more.

Plant!

The more you plant, the less mulch you need.

- Substitute mulch with ground covers. They're more beautiful and also less work once established. Some great easy-care options include *Prunella vulgaris* (var. *lanceolata*), wild or barren strawberry, sedges, and pussytoes (*Antennaria* spp.).
- Allow volunteer groundcovers to spread. Examples are violets, and other volun-



Comon cinquefoil

teers taken for “weeds” such as cinquefoil (*Potentilla* spp.) and wood sorrel (*Oxalis*). Learn to identify these useful natives with apps like Picture This, PlantNet, iNaturalist, and Google Lens. Make those “weeds” work for you!

- Plant more densely. Roots help to absorb rain runoff and hold it in the ground. And, unlike the typical garden of plantings isolated in a sea of mulch, native plants benefit from crowding. Without competition in a rich garden soil, they grow too much and flop, unable to support the heights they were never supposed to reach. So feel free to get more plants and indulge your gardening addiction.

Plant for Drought.

Plant selection is key.

This may be hard to do if we are in the middle of the drought, but study your yard to understand where it is wetter or drier so you can move or choose plants for the right area.

- Add more native grasses, such as little and big bluestem, prairie dropseed, and switchgrass. The roots run deeper so they don't compete for water with other natives, and the blades buffer wind, smell nice, offer late-season interest, serve as host plants, and feed birds into the winter. Place them close to your flowering plants.

- For more information on drought-tolerant plants, visit the [UMass extension](#), [Tufts Pollinator Initiative](#), or the [Wild Seed Project](#).

Start making plans for the fall

Move those thirsty plants, plant more ground-covers, and buy plants (on sale), and plant them in the right place. Make those “weeds” work for you!

In the meantime, slow down. Summer is a great time to observe plant, bird, and pollinator life, and share your photographed discoveries with others through the Mystic Charles Pollinator Pathway Group (MCCPG) Facebook page and the iNaturalist app. MCCPG has an iNaturalist project page that you can join by searching for MCCPG on the iNaturalist app. Then every time you upload a photo of a plant or pollinator, it will add it to our project automatically. Joining iNaturalist will also help you create your own record of plants and pollinators you see.

For more information about MCCPG and to add your native garden to the MAP, visit our website: www.sustainablebelmont.net/mystic-charles-pollinator-pathways-group/

Sarah Wang and Jean Devine are Belmont residents and cofounders, along with Brucie Moulton, of the Mystic Charles Pollinator Pathways Group. Kim DeAndrade is on the MCCPG steering committee and lives in Medford.



Little bluestem grass in fall.

BHS Students Create Native Plant Garden

By Audrey Brenhouse

On Saturday, May 13, the Belmont High School Climate Action Club, with the help of adult and student volunteers, planted our long-anticipated

native garden in front of the school. Our goal is to grow plants native to this area to promote and support native wildlife, helping to restore the land's natural biodiversity. In the spring of 2022, we held a student-led concert where many families

kindly donated to this process. After years of approvals and fundraising, we are proud and grateful to be able to display the result of your generosity.

Over the next few years, these plants will grow and reproduce, making this patch of land flourish with a thriving ecosystem. Stop by the front of the school to see the variety of promising sprouts, including Jacob's ladder, golden Alexanders, wild bergamot, and much more!

Audrey Brenhouse is a student at Belmont High School and a leader of the BHS Climate Action Club.



Profiles in Belmont: Dean Hickman

By Elissa Ely

Before he became chair of Sustainable Belmont, before the PhD in pharmacogenetics, before moving to the United States, certainly before any awareness of the environmental needs of a Massachusetts town next to Cambridge, Dean Hickman was picking up litter.

“Have been picking up trash anywhere I go since I could walk,” his Instagram says. Growing up in farm country west of London, traveling the footpath systems, Dean took the “Keep Britain Tidy” campaign of the 1960s to heart.

Many decades later, on a late rainy afternoon when he could have been enjoying a mug of tea, we are circumnavigating Clay Pit Pond. He is carrying a bag of trash, periodically filled and periodically emptied into one of the DPW bins. On his own walks, he often brings the bag home to his garbage can. “Plenty of room,” he says.

This is where the Parry brothers quarried their clay in the late 1800s for bricks. Now the pond holds stormwater from Wellington Brook, slowing its eventual journey to Alewife Brook and the Mystic River. It’s also one endpoint for whatever refuse flows into Belmont storm drains and through its culverts, floating on the pond’s surface and lining its shore. “99% of what you see here comes from storm drains,” Dean explains.

Ranging through topics—why man-made chemicals don’t disappear; how Rachel Carson’s *Silent Spring* was formative in adolescence; what the invisible impact of burning gasoline is; how, without his family, he might well retreat to a yurt—he is also bending for plastic straws and plastic bottle caps, and reaching for a shredded plastic bag snagged on a branch. Left unpicked, they break down into the microplastics absorbed by fish and animals, and sometimes, eventually, by us. He finds a crushed soda can, a rectangle of duct tape, a thick strip of red DANGER tape some workman left after a project. “Litter is not safe,” he says mildly, with the expertise of a biochemist to back it up. “There are so many things to worry about. But we all have choice.”

Dean made some of his first environmental choices as a teenager, when unexplained food additives on labels began to intrigue him. He wrote to consumer advocate groups, and they sent dire



Dean Hickman

photostats about carcinogenesis. He wrote to food companies, and they sent soothing brochures that didn’t address safety. What he needed to understand was more complex, hovering somewhere in between. Reading scientific literature was a start. This led to a degree in biochemistry, a year in agrochemical research on the metabolism of pesticides in soil, and eventually, a PhD.

As a child, he had wanted to become a veterinarian. He didn’t, in part, because seven years seemed an endless education. But life is a process with humor; the entirety of Dean’s education between undergraduate and postdoctoral work took closer to 10. Moving to the United States for a series of jobs, he landed finally in an energy-efficient house in Belmont. Before the pandemic he biked to work; now the home office commute is shorter.

His full-time job is with a nonprofit, discovering and developing affordable medications for tuberculosis treatment. Then there is Sustainable Belmont, whose programs, initiatives, and website encourage

residents towards a more sustainable community. The www.sustainablebelmont.net site opens onto a serene Lone Tree Hill vista. Drop-down categories are like metaphorical vistas: energy, home, climate, action, biodiversity, all part of what he calls “humanity”—which is to say, opportunities for community. Advocacy is politely welcomed. Complicated issues are explained and personalized to Belmont.

Civility is key. For instance, who among us has not seen a stranger toss garbage onto the street? Here is the Sustainable Belmont Clean Green FAQ



Dean Hickman

advice: “It is okay simply to pick up the litter (if it is safe to do so) and say nicely, “I’ll take care of that for you.” It’s a response so peaceable and productive that readers might need to blink twice. “You have to play the long game,” Dean says. “Offer a little education, provide a platform, give people agency, aim for reasonable compromise and engage community in any way you can.” Environmental reform is a patient process.

And environmental reform is a personal process. One of his great satisfactions is when strangers pull invasive weeds together on a plot of land, or pick up trash as part of a project; for a while, those who might live across barbed political fences come purposefully together. “It’s the interconnectedness of all things,” he says. “We want a simple solution, but most of the time it’s complicated. There IS a simple remedy, though. It comes in one word: respect.”

In 2022, Sustainable Belmont respectfully highlighted solar power, electric cars, and other local electric interventions. It hosted presentations on the dangers of per- and polyfluoroalkyl substances (PFAS) and the benefits of native planting, offered information about rain barrels and healthy lawns, educated on the hazards of gas leaf blowers. And, of course, there were invitations to pick up trash with others.

“Overall, I think you have to stay hopeful,” Dean says. It helps to hear this in times when dire environmental facts let in so much light they can feel blinding (one reason why so many of us choose to live in the environmental dark). But Dean is not overwhelmed. “Things can change,” he points out. “In Massachusetts, we have a climate chief now. It’s something that gives you hope. Climate change will have a seat at the table of every state-agency decision.” How useful it could be, he adds, if we also had a sustainability director at the Belmont town level.

And yet, not long ago in Cushing Square, a little boy and his father noticed a man running by, breaking his pace every now and then to pick up a piece of trash from the sidewalk or street. He had a bag with him, or maybe it was his nabber grabber. “What’s that man doing?” the boy asked. “Picking up trash,” his father said. The little boy thought for a few seconds. “Can I do it, too?” he asked.

Elissa Ely is a community psychiatrist.

Wild Play is Parenting in the Great Outdoors

By David Sobel

Are you concerned about the academification, indoorification, and digitalization of your child's life? Especially now, post-pandemic, when most children were forced to be indoors and plopped down in front of screens for much of their schooling?

I felt the same way, even a couple of decades ago when I was raising my children in rural New Hampshire. As a family, we avoided television until my children were about eight years old, though we did borrow DVDs from the library for family viewing. And I am thankful that my wife and I didn't have to deal with the cell phone problem when my children were growing up.

Instead of being seduced by digital devices, I wanted the local landscape mapped out on the backs of my children's hands. I wanted them to grow up blueberry-stained, trail-weary, watershed-saturated, and with some apple cider—pressed from the apple trees in their backyard—flowing in their blood. That's a fancy way of saying I wanted my children to connect to and bond with nature. That's what *Wild Play: Parenting Adventures in the Great Outdoors* is about. I think it's more relevant now than when it was originally published in 2011.

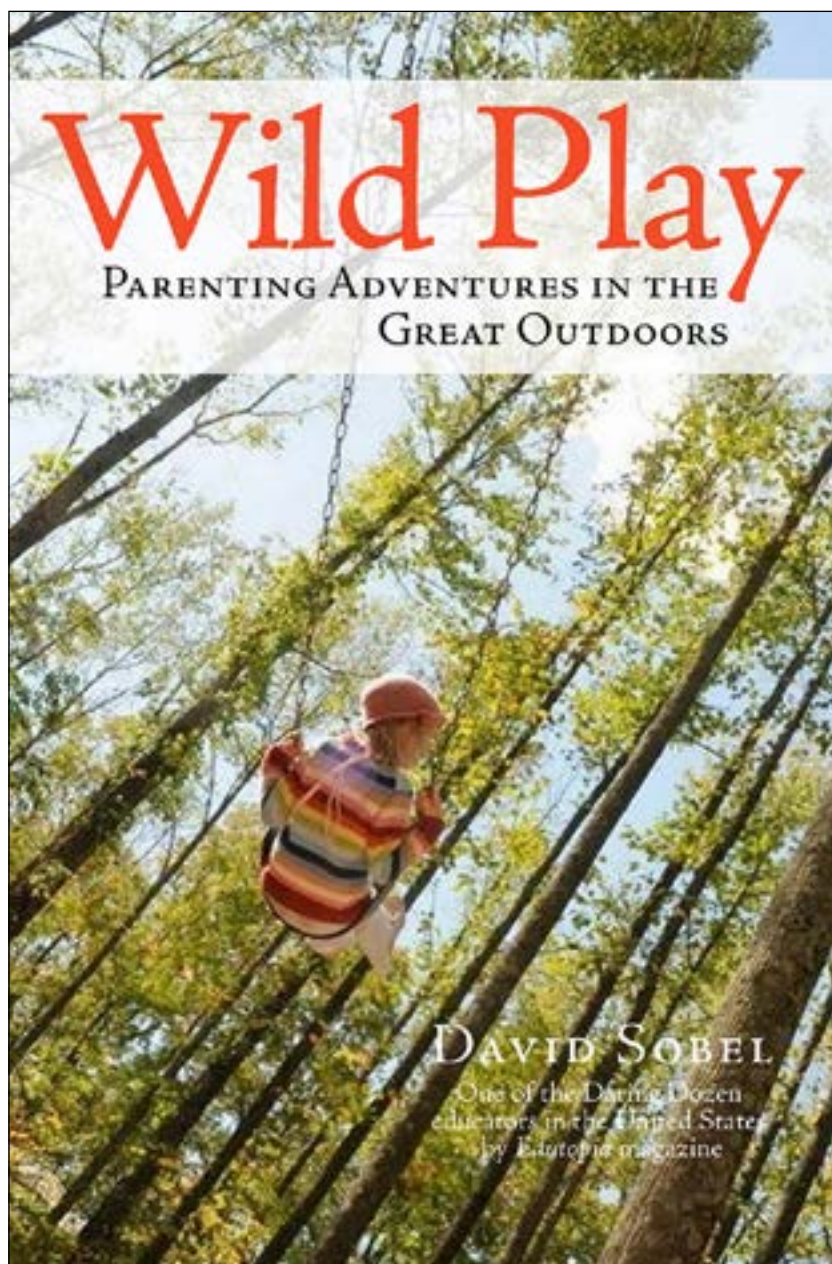
First, a bit of clarification. The “wild” in *Wild Play* doesn't mean out-of-control play. It means play in wild places. We had a lot of wild places nearby—the apple trees in the backyard, the frog pond next door, the pine grove over behind the Putnams' house. In progressively wider circles, we played with our children outdoors, had them help with outdoor chores, and gradually let them explore independently. I slowly let them become “free-range children.”

That meant I had to accept a certain amount of anxiety about what they were doing and where they were going. I moved away from a “risk assessment” mindset to a “risk-benefit analysis.” In other words, developing a balanced understanding of

the risks and benefits of a free-range childhood was important.

All play, including nature play, involves some risk, but that's part of the value: learning to measure the risk and behave appropriately. The riskiness of play is, to a certain extent, its benefit. Take all the risk out of the situation, and it's no fun—and not beneficial.

The book is a collection of essays I wrote from when my children were just toddlers until their early adulthood. I had good raw material for writing these reflective essays on parenting because I was a conscientious journaler. I captured their language



development, their made-up games, and my emotional ups and downs.

As I looked at all these essays, I conceptualized three stages in the development of bonding with nature. The first stage was being together with children in the early childhood meadow. The second stage was exploring the woods, parents and children together, and then easing them into exploring by themselves in the middle childhood forest.

In the third stage I let them engage in moderately risky outdoor pursuits on the adolescent rocky ridge. An example of the rocky ridge was when I took my son for a rite of passage ski experience in Tuckerman Ravine. He was an accomplished skier before this, but this was a test of his mettle. And it reflects the necessary risk-benefit mindset of parenting in adolescence. Later, when I asked him to write about what the experience meant to him, he wrote:

‘It was always something I wanted to do when I was younger like it was the guy thing to do. So I felt I had really done something big like I had conquered it. And mentally, I think it made me a better skier since it helped me manage my fear. Last

summer, when I hiked those peaks around Zealand with my class, I used that same backpack Bo lent me. When I’d start to feel tired, I’d think, well, this backpack went up Tuckerman, and this isn’t nearly as hard, so I knew I could do it. After Tuckerman, I knew I could be more adventurous and take on bigger challenges because I knew I was strong.”

For Eli, it was the right challenge at the right time, and that’s what I was after all along. How do I challenge my children in developmentally appropriate ways that lead to personal growth and a sense of inner strength?

I hope you’ll find that this is a good book for young parents, educators, and grandparents. As I’m now in grandparenting mode, it’s fun to see the patterns I saw in my children’s development, re-unfolding in the grandchildren. And being a grandparent helps me be young again. As Tom Robbins said, “It’s never too late to have a happy childhood.”

David Sobel is a professor emeritus in the education department at Antioch University New England in Keene, New Hampshire. He’s written 10 books, mostly about children, nature, and education.

UMass Field Station Update

By John Dieckmann

In the January/February issue of the Belmont Citizens Forum *Newsletter*, there was a brief article on the status of the UMass Field Station on Beaver Street in Waltham. The city of Waltham acquired the property from UMass last year. The city planned to issue four requests for proposals (RFPs) covering different parts of the property for potential users to respond to.

To date, one of these RFPs was issued in February, covering about 13 acres of farm land, the main building, and several outbuildings. According to Stacey Daley, executive director of the Waltham Fields Community Farm (WFCF), the only proposal was submitted by the WFCF. The WFCF has operated on the site since the mid-90s. To date the city hasn’t responded to their proposal.

In the meantime, WFCF has proceeded to plant this season’s crops and has recently harvested the first output, which is being supplied to community supported agriculture shareholders and is being sold in the farm stand on site. WFCF has been proceeding at risk, since the RFP and their proposal, to date, hasn’t resulted in an agreement with the city.

Several nonprofits, in addition to WFCF, have rented office space in the main building for many years. Given the uncertain status, several, including the Waltham Land Trust, have opted to move their office to other locations. The Waltham Land Trust office is now located at 8 Common Street in Waltham. This is just off of Main Street across from the end of Moody Street.

John Dieckmann is a director of the Belmont Citizens Forum.

Ottavio Forte, Renaissance Man

By Fred Bouchard

Tireless energy, intelligence, and curiosity mark the life and times of Ottavio Forte. Now in his 80s, he has enjoyed success in a colorful array of careers and hobbies: electrical engineer, beekeeper, sculptor, winemaker, distiller, gardener, and homespun philosopher.

Born in Formia (near Naples) in 1940, Forte came to New York at 14, the eighth child of illiterate, hard-working parents. As a high school senior, he claimed second prize in the Brooklyn Science Fair for a model of a vacuum tube. Forte graduated from City College of New York in 1961 in

engineering. MIT hired him in 1963 to work on the Apollo Program, in human factors and simulation. He studied and taught at MIT, and was married in Eero Saarinen's magnificent cylindrical brick chapel. "The bronze metal altarpiece was made by Italian-born sculptor Harry Bertioia," he notes with pride.

When Draper Labs was designing the guidance system for Trident missiles, Forte was responsible for an innovative two-way communication system (analog to digital interface, aka ADDAC) between guidance and autopilot.

In retirement, he taught spectroscopy and edited books at Boston College, and dug in with his many hobbies. He's since logged seven years teaching craft shops (metal, welding, woodworking, automotive) at Minuteman Tech in Lexington, and sub-teaching a wide range of classes at Lexington High School.

Affable, jocular, and hospitable, Forte marches to his own drum, at a quick-step pace. Feverishly busy, he handles several projects with effortless relish, more so since recently retiring from teaching at Minuteman. He's incurably inquisitive: when I first rang his bell he was tinkering with an opened Dell laptop, manipulating tiny Phillips screws with a toothpick screwdriver and no visual aids.

Apiculture

Forte has kept three or four beehives in his Winn Street yard since 1991, and is thus a nominal godfather to the town's honey-harvesting consortium. His bees are of Italian stock, typically the best for honey. "They're industrious, social, non-aggressive, and productive—just like the Italians!" he quips, seated at a picnic table in his shady, bird-frequented yard. Last year, his bees produced 180 pounds of honey, which he bottles and sells with his homemade label, "Belmont Flowers." Fellow beekeeper Phil Thomas adds: "Ottavio is a recognized, knowledgeable beekeeper, who's liked and admired in the local beekeeping community. He is creative, a bit eclectic at times, a lovable person!"



Ottavio Forte.

BCF

What attracts you to keep bees?

Forte

Once I explained it: “Bees are my pets. Many people have dogs for pets. Bees make honey; what do dogs make?” Each hive can hold up to 60,000 bees. But these bees are never purebred. I hosted a gathering of the Middlesex Beekeepers Association last summer, and will host one again in August. I show and tell and lecture; they love it.

Metal sculptor

Forte’s Winn Street yard looks like a mini De Cordova sculpture park. He’s gradually forested his back and front yards with a fascinating array of original painted steel and aluminum sculptures: mobiles, chimes, ingenious images of nail-finned fishes, birds and bees with whirling wings. He offers a tour with professorial enthusiasm, wielding a pointer to emphasize the structural niceties of complex engineering problems solved with techniques like surface-mounted bases (for easy transportation) and pin-point spot-welding. Some

are brushpainted white or silver, and most have accents of primary colors. Each work has its name and back-story.

“Pompous Pompeo,” a six-foot Emperor Penguin with a glass eye and big pink feet, is named after the Roman general who dared to cross Julius Caesar.

“Miss Big-heart,” a perfectly symmetrical 10-foot human form with pigtails and arms in a heart-shaped embrace, was created by fellow welding students at Minuteman High School.

“Standing Tall,” a gracefully angled tree artfully composed of large and small acute white triangles, is topped with a wispy crown of wire. Forte painstakingly replaced its original blue wire with yellow, an aesthetic decision that improved its visibility by day and night.

Commanding the backyard stands a tall multi-armed mobile made up of concentric steel circles, precision-cut by machine from computer files, balanced on swivel bearings to maximize wind motion, and Rustoleum-painted with Italy’s *tricolore* flag colors of green, white, red.

Forte’s sculptures delineate history, both that of his own family, and the wider world. A spray of metal flowers with whirling color-coded blossoms called “Family Flowers” depicts his nuclear family as a bouquet: his



FRED BOUCHARD

Miss Big-heart.

ex-wife, his two children—Carla’s a professional artist and Paolo’s an electrical engineer —and two grandchildren. By his front door a newly created bell chime with blue-over-yellow circles commemorates the Ukrainian nation’s recent call to arms.

BCF

Does your sculptural style owe influence to classicists like Calder or Moore?

Forte

Not really. But I’ve sculpted two of Picasso’s famous drawings: a white dove with olive branch and a yellow steel bull.(Both 5-foot wire forms grace the facade of his Claflin Street frontage. The bull, [1945, final state] sports a frequent Forte hallmark: a jaunty red bow tie.)

Gardener

Forte’s corner property boasts two vegetable gardens. He tended flats of spring seedlings in pots: San Marzano tomato, zucchini, sunflowers, basil. He then planted two 5 x 20’ rabbit-proof chicken-wired plots with several vegetables. He explains, “I start from seeds: basil, pepper, pumpkin, parsley, and then give some away on Facebook Green Belmont. I gave up on flowers. Everything’s fenced in from the rabbits. I’ll post pea and bean trellises this week. Buy seeds? No! I pot peas and beans that I eat.”

BCF

You’re into cooking, too?

Forte

Monday I fried fish and potatoes with my son. I haven’t bought a loaf of bread in years: I bake my own. For big parties in my back yard, I used to make pizza pomodoro with fresh garden tomatoes baked in an outdoor electric oven.

Cellarmaster

Nurturing a lifelong appreciation for fine beverages, Forte vinifies his own house ‘Chianti’ from traditional Sangiovese grapes. He uses the leftover pomace (and that of friend and fellow-winemaker Joe Magno) to distill liqueurs in his cellar. Some of them are: dandelion aperitif, limoncello, amaretto, “Bel-mint,” and a mead brandy with honey from his yard hives. He also distills a pleasing (35%) grappa from grape must, lightly flavored with rue.



FRED BOUCHARD

Forte and his grappa.

BCF

You remember your early years as an immigrant vividly, and with pride. What do you have to say to today’s new wave arriving at the borders?

Forte

Today’s new arrivals, as a distinguishable class of their own, are equipped with the same drive to move up from zero as previous generations. All I have to do is lock eyes with them, tell them that I am an immigrant too, and they know what to do!

On the board of Belmont Media Center, Forte has made several videos about beekeeping and distillation in their archive: www.belmontmedia.org/search/node/beekeeping.

Fred Bouchard is a Belmont resident and member of the Belmont Citizens Forum Newsletter committee.

Do We Underestimate Bees?

By Fred Bouchard

Sit in your backyard by the flowers and watch the bees go about their busy business. Notice their different sizes, colors, and flight patterns. Chubby, buzzy bumble bees—yellow-striped, black-bottomed—cram into white roses. Slender, darting honeybees—tawny orange, pinstriped—slip in and out of pink weigela. (Smaller, faster bees have eluded my view, for now.)

Are these garden denizens simply honey-gathering, pollen-spreading automatons? Not so, says author Stephen Buchmann in *What a Bee Knows*:

“Watch closer: she may be using olfactory tools to give her a 3-D map of her surroundings. She may gather information from the movements of other hive members. If she takes a milli-second ‘bud-break’, she may even dream. What goes on in poppy-seed-sized bee brains is far more advanced than we ever imagined. In their unending quest to feed their hives and store honey, they navigate complex landscapes, choose suitably ripe flower beds, react to climate shifts.”

“Bees have a memory of a few weeks,” says Belmont beekeeper Ottavio Forte. “But if I move a hive, they will soon reorient to it. The CIA uses them as drug-sniffers; bees are less troublesome and easier to maintain than dogs.” Nobel Prize winner Karl von Frisch explained the complexities of honeybees’ “waggle dance” that precisely communicates, in intricate figure-eight movements, the location of (say) a nectar source to hive members.

Sophisticated pheromones aid inter-communication within the hive. Honeybees have recently been found to adjust their spatial maneuvers strategically to effectively “social distance” themselves from the incursions of parasitic mites.

Tireless workhorses in pollinating 40% of our nuts, fruits, and legumes (not to mention sustaining the universe of flora), bees have become victims, decimated

by diseases and commercial agricultural practices. Current research is scrutinizing brutal methods employed in industrial hive management; in one egregious example, we’re learning that millions of bees die annually in the pollination, production, and harvesting of California almonds.

What can home gardeners do to help the bees? The “No Mow May” non-movement has caught on. Leave your mower in the garage and/or use it less frequently and with a high (4- or 5-inch) blade setting; leave most clippings for natural mulch and compost the rest. Multiple benefits of this hands-off approach include pop-ups of clover, buttercup, dandelion, and daisy; extra nectar for bees; prosperity for the healthy underworld of bugs, microorganisms, and the silken carpet of the mysterious mycological network.

Fred Bouchard is a Belmont resident and member of the Belmont Citizens Forum Newsletter committee.



Rock Meadow bees, March 2023.

PHIL THOMAS

Local Activists Testify to Limit Rat Poisons

By Allison V. Lenk

The morning we arrived to rally in front of the State House, we noticed two hawks circling the Boston Common. People excitedly pointed out when one of the hawks landed on the weathervane atop the Golden Dome of the State House. We optimistically decided it was a sign that the day's testimony would make a positive difference in the cause to limit the use of second generation anticoagulant rodenticides (SGARs) which not only kill their intended target, but also sicken or kill birds of prey, other wildlife, pets, and even threaten the health of children. (See ["Join New Belmont Group Protecting Raptors,"](#) BCF Newsletter, March/April 2023.)

On May 10, the Joint Committee on Environment and Natural Resources held a hearing for four pesticide bills, including several that impact rodenticides. Laura Kiesel, an environmental journalist and founder of Save Arlington Wildlife, rallied the crowd and spoke with the media (the *Boston Globe* and WBZ) about the importance of passing Arlington's Home Rule petition (H.804 & H.814), which would allow the town to ban SGARs on private property.

These rodenticides killed MK the eagle, her offspring C25, and a family of great horned owls at Menotomy Rocks Park in Arlington. Raptors and rodents aren't aware of where one locality begins and ends. Kiesel also stressed the importance of passing the Local Control Bill (S.504) which would empower other towns/cities to restrict pesticides like SGARs.

In her testimony, Kiesel said that wildlife rehabbers report hundreds of cases of poisoned wildlife, and MSPCA veterinarians report numerous poisoned cats and dogs in their practice.



Activists at the State House.

While the EPA previously banned SGARs from over-the-counter sales because thousands of children had been poisoned, they're still available online, and the poison-filled black boxes are the first line of defense by pest control companies. The fourth bill (H.825) put forth by State Representative Jim Hawkins, would require these companies to keep digitized records of the locations of black boxes containing SGARs. Currently, these records are handwritten and stored in boxes and aren't accessible to residents attempting to gather this information.

ALISON V. LENK



Great Horned Owl fledglings at Habitat, 2016.

Kiesel also pointed out that the data don't indicate that SGARs are effective in controlling rat population. In fact, rodents' numbers have increased with the use of SGARs. Ironically, these poisons are decimating the natural predators that would control the rodents. As the Friends of Menotomy Park lawn sign with the image of the owl states: "PLEASE DON'T POISON OUR FOOD—We'll Control the Rodents!"

Many other people also testified in support of the bills, citing the importance of utilizing mitigation methods to control rodents such as securing trash, putting mothballs in nests, and locating/closing holes. They pointed out that there are alternatives (electrical shock, birth control, dry ice, etc.) to the use of SGARs. Evidently, pest control companies prefer poison because it is potentially easier and less expensive. In fact, the only testimony in opposition to the Local Control Bill came from two representatives from a pest control conglomerate who stated that towns/cities adopting different laws would be too onerous, and that elected officials shouldn't be responsible for making these decisions as then it would be up to "whoever shouts the loudest."

Precinct 8 Town Meeting member Melissa MacIntyre shared her love of birds and how SGARs are significantly more potent than first-generation compounds. Rodents, the intended target, became so resistant to the first poison that a second, stronger one was created, and there's evidence that rodents are building a resistance to SGARs. Will an even more lethal version of rodenticide be attempted?

MacIntyre pointed out that each raptor could be eating a rodent a day, yet instead they are dying. State Representative Dave Rogers called this a "terrible and painful paradox."

One particularly moving testimony was shared by a girl from Billerica, her Girl Scout vest festooned with badges, feet swinging under the chair as she presented. She stated that it wasn't "fair" that we were poisoning the wildlife's food. They should be able to eat without getting sick, or worse. The girl implored the Joint Committee members to pass the bills as she wants to still be able to see the wildlife when she grows up.

The Joint Committee on Environment and Natural Resources is expected to make their recommendations soon. We hope their decision will reflect the powerful testimony shared on May 10 and will reflect respect for all living creatures.

Allison V. Lenk is a Precinct 8 Town Meeting member and an avid birdwatcher.



A New Weekly Voice for Belmont

By Sue Bass

Once upon a time, Belmont had a real newspaper. Indeed, within living memory, it had two: *The Belmont Citizen* (1944–1988) and the *Belmont Herald* (1931–1988.) By the time Henry and I moved here in 1995, the merged *Citizen-Herald* was an acceptable but not great source of information. Still, I seem to recall that at one time it employed an editor, a reporter, and at least one stringer who might attend Planning Board or other committee meetings.

Then it got worse, and worse, and worse. No coverage of school sports. No more police log. No more school lunch menus. By May 2022, it had no more local reporters. The last local columns vanished in September 2022. The *Belmont Citizen-Herald* had nothing much about Belmont.

Fortunately, an indefatigable band of volunteers aims to change that. The Belmont News Foundation incorporated on April 10 and filed on May 2 with the IRS requesting 501(c)(3) status, in the expectation that contributions would be tax-deductible.

The foundation now has pledges of more than \$190,000. The goal is to raise \$500,000—approximately one year's expenses—by the fall of 2023. The group hopes to start publishing the *Belmont Voice* in October.

Though most people's first assumption was that the *Voice* would be solely digital, consultations with other local newspapers overturned that assumption. It turns out that a primarily print newspaper, unlike a purely digital one, can gain revenue.

The *Concord Bridge*, less than a year old, is thick with display ads, paid legal notices, paid obituaries. Though it raised money before it started, it has barely used its nest egg.

Nevertheless, the *Voice* does not plan to hire staff until it can guarantee their salaries. So you can expect to be asked for startup funds and after that for an annual donation: The *Voice* will be supported by readers like you.

In its business plan, being circulated to possible donors, the foundation states, "We plan to mail a printed newspaper to each home and business in Belmont weekly and to maintain a website and a social media presence for breaking news and engaging content . . . A high-quality newspaper, delivered weekly to every home and business in

town, will allow us to charge significantly higher rates for print advertising than for digital ads. And we believe that the physical paper itself, discovered in a neighbor's kitchen or at a local café, will serve as a form of advertising, thereby increasing both public awareness of the paper and individuals' interest in donating." It's expected that revenue from advertising, etc., will cover the costs of printing and mailing the paper; donations will be needed for staff.

By May 2022, it had no more local reporters. The last local columns vanished in September 2022. The *Belmont Citizen-Herald* had nothing much about Belmont.

The foundation board includes Jane Sherwin, president; Victoria Fici, treasurer; Lucia Arno-Bernson, secretary/clerk; Anne Donohue, chair of the Editorial Advisory Group; and Bob Rifkin. Along with Donohue, who has recently retired as journalism professor from Boston University, the Editorial Advisory Group includes Jane Clayson Johnson, Dick Lehr, Stephanie Leydon, Cosmo Macero, Karyn Miller-Medzon, John Rudolph, and Ben Schrekinger. For information, visit www.belmontvoice.org/contact-us.

Sue Bass is a member of the Belmont Citizens Forum Newsletter Committee and a volunteer for the forthcoming the Belmont Voice.

Letter To the Editor

To the Editor

Regarding your feature piece in the May/June issue [“Why is There So Much Plane Noise Over Belmont?” BCF Newsletter, May/June 2023], it is good to see attention to the issue. However, the author decided to use valuable print largely to explain simply what is, and not the effects, other than “disturbing” or “too much” noise.

Imagine if all that ink was used for describing epidemiological evidence that points to negative health outcomes, instead of rote retelling of recent events and history, easily conveyed with a link or two. People end up in hospitals more often as a result of exposure and proximity to elevated levels of aircraft noise. This piece propagates the responses of “get used to it” or “it’s just noise,” exactly the opposite of what you should be doing.

The FAA recently stated that the mitigation options proposed by MIT to increase dispersion, toward an approximation of pre-NextGen, were rejected because they were unpopular with the public. Other than for the single one identified, which represented a re-creation of new or modified sacrifice zones, this was a fabrication. Why not mention this? Note: MIT’s study did not find it “cumbersome and confusing” to use alternative methods; the FAA did so.

Would the reader like to know that as a result of NextGen, Arlington Heights and parts of Somerville, Cambridge, Upper Allston, and Malden now have zero flyovers? That would be zero for them, because we were chosen by the FAA as the statistical sacrifice populations to eliminate shared burden of departures. Any return to such sharing would require that those communities to, in effect, grant permission to do so. Wouldn’t that be relevant?

The author doesn’t mention the utterly absurd metric that is used for (conventional) noise assessment, called “65 DNL.” The use of this metric by the FAA is a cornerstone of the joke of FAA/NextGen’s “Finding Of No Significant Impact,” yet it is ignored in the piece.

All noise measurement criteria used by the FAA ignore low and ultralow frequencies, by design and specification. When your house shakes or rumbles, or you feel it in your chest, that is fully ignored by the FAA/NextGen. The author ignores this while

evidence shows it is associated with specific health effects.

Epidemiology says that cardiovascular incidents/hospital admissions are increased where populations are exposed to elevated and ongoing noise of this type. Research by Mariana Alves Pereira, Jonathan Levy, and Junenette Peters, among many others, demonstrates this.

You spend over half a page asking readers to act, but you don’t tell them that they may be at increased risk of cardiovascular disease if they live in a sacrifice zone, nor the absurdities behind “No Significant Impact.”

Myron Kassaraba made it clear: the FAA works for the benefit of the airline industry, while the public can take a hike. We pay the FAA to help airlines make more money, hugely profitable as they already are, while making people sick.

Bill Trabilcy

Rachelle Reinhart responds:

Dear Mr. Trabilcy,

Thank you for your comments on the article, which is focused primarily on the Belmont community.

The environmental effects of low-flying aircraft are real but occur at altitudes below 3,000 feet. Given this, Belmont residents are most affected by aircraft noise, not environmental pollution.

You make an important point about the stress and health risks associated with airplane noise. The FAA is conducting a formal review of its noise policy and metrics, with the public comment period ending July 31, 2023. Ideally, the 65 DNL threshold would be lowered to reflect more realistic assumptions based on current research.

The article was not in any way intended to mitigate the noise impact on our everyday lives or suggest Belmont residents “get used to it.” Quite the opposite. I live under two flight paths on the Watertown side and feel the effects whenever 33L is in use. Our goal is to find a viable solution to the problem, with help from the Belmont community.

Rachelle Reinhart

MBTA Rethinks Tunnel Construction

By Vincent Stanton, Jr.

The MBTA recently changed its position regarding the preferred construction method for the new tunnel under the Fitchburg Commuter Rail Line at Alexander Avenue. Now the plan is to use “cut and cover” construction rather than tunnel jacking. The change will lower the cost of constructing the Belmont Community Path by an estimated \$5 million, shorten the construction timeline, reduce the construction footprint, and be less disruptive for nearby residents, the Belmont middle-high school community, and Fitchburg Line riders.

The cut and cover approach will also permit a wider tunnel, which is preferable given the anticipated heavy use at school opening and closing times. This change in the construction method is ultimately a win-win for Belmont, MassDOT, and the MBTA, albeit it will delay the completion of project design by a few months because for the past two years a different construction method was planned.

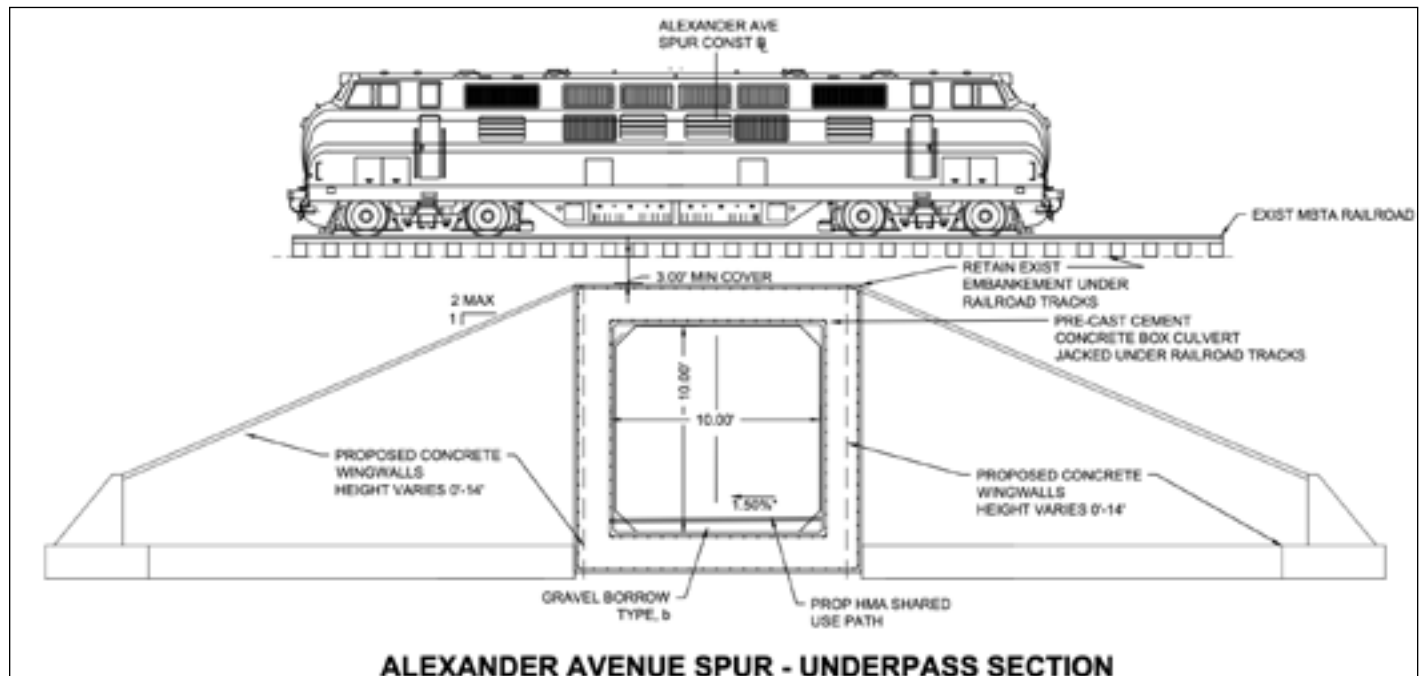
In February 2020, Nitsch Engineering, the firm Belmont hired to design Phase I of the Belmont Community Path, submitted a Conceptual Design Report (CDR) to MassDOT. The CDR outlined design options along the path, and provided Nitsch

Engineering’s recommendations for each segment. In March 2020 the Nitsch team, together with Belmont town engineer Glenn Clancy, met with senior MBTA management to review the design options impacting MBTA property.

In the CDR, Nitsch and its subcontractor GZA GeoEnvironmental, a tunnel specialist, recommended that the Alexander Avenue underpass be built using the cut and cover method (also referred to as open excavation). That method entails removing the tracks over the future tunnel, stopping train service, then digging a trench to the depth of the tunnel bottom, dropping a prefabricated tunnel into the trench, then reassembling the layers above.

In the CDR, Nitsch wrote, “open excavation construction offers many advantages over tunnel jacking. Construction costs would be significantly less, as would the amount of land required for construction and staging activities [and it] would lessen impacts to adjacent properties.”

Nonetheless, in March 2020 the MBTA’s chief of railroad operations indicated a strong preference for tunnel jacking as the construction method. According to Nitsch project manager John Michalak’s meeting notes, the MBTA was particularly concerned that imperfect soil compaction over the tunnel following cut and cover construction might lead to future settling of the tracks.



Alexander Avenue tunnel plans.

Nitsch of course had to defer to the MBTA's preferences. Accordingly, 25% design work proceeded on the assumption that the tunnel would be jacked under the tracks, and GZA developed detailed plans for jacking.

Briefly, tunnel jacking would entail excavating two large pits; a jacking pit on the high school side and a receiving pit on the Channing Road side. Powerful hydraulic pumps (jacks) would then be installed in the jacking pit and used to push a prefabricated tunnel into place under the tracks, towards the receiving pit, where displaced earth would be removed. Ideally jacking could be accomplished without disrupting the surface above, so trains could keep running. That is likely what the MBTA had in mind in February 2020.

In November 2021, Nitsch Engineering (on behalf of Belmont) submitted the 25% design package for Phase I of the Community Path to MassDOT, which formally reviews projects at the completion of 25% and 75% design. The review ensures that projects meet the standards necessary to be eligible for state and federal funding via the Transportation Improvement Program (TIP). Following MassDOT sign-off on 25% and 75% designs, the agency holds a public hearing on the project.

In reviewing Belmont's 25% design, MassDOT noticed, and questioned, the choice of tunnel jacking. That prompted a deeper review of the two construction methods by Nitsch and GZA, including a detailed comparison of the project scope and costs in view of new information about subsoil composition and its implications for each method.

The resulting analysis showed that:

1. Because the soil layer between the top of the tunnel and the tracks would only be about 3 feet deep, and the earth below is silty clay, the tracks would not be stable enough to use during conventional tunnel jacking;
2. To alleviate that problem would require building a temporary bridge (a "jump span") over the the tunnel zone,
3. Pushing the tunnel into place via hydraulic jacking, then
4. Removing the temporary bridge and placing the tracks, ties, and ballast back in their original location.

As a result, railroad service would have to be interrupted twice (vs. only once with the cut and cover method). More important, the cost of jacking was estimated by GZA Geoenvironmental to be

about \$5 million higher, due in large part to the cost of driving 54 steel piles deep into the ground on either side of the tunnel to support the jump spans for east- and west- bound tracks. GZA estimated that one pile could be driven into the ground each night after the end of Fitchburg Line service (1 AM), so just driving the piles would take two months while producing a nighttime racket for residents!

In view of the new analysis, the MBTA had little choice but to change its position on constructing the underpass—indeed, the original rationale for tunnel jacking evaporated with the requirement for the jump span. At a meeting in April 2023, the MBTA agreed to build the underpass using the cut and cover method, and proposed a four-day Thanksgiving weekend for the project (year to be determined).

Nitsch, GZA, and yet another subcontractor with expertise in project scheduling, WSP, are now finalizing detailed plans for cut and cover construction. This change in plans is expected to delay MassDOT review of the Belmont Community Path 25% design by about two months. While unfortunate, that delay is only one of many—including COVID-19 associated delays—that have pushed back the project development timeline by about 18 months.

Meanwhile, as reported in the January/February 2023 BCF Newsletter, the Boston Region Metropolitan Planning Organization (MPO) voted to fund the Belmont Community Path in federal fiscal year 2026, which starts October 1, 2025. So, while the delays have been aggravating to those involved in the project, Nitsch Engineering has assured the Belmont Community Path Project Committee that there is more than enough time to complete 100% design well before construction funding is available in late 2025.

On balance, the final resolution of the underpass construction method is a positive development for all concerned, not only because it will save an estimated \$5 million, but also because it will permit construction of a wider tunnel (14 feet instead of 10 feet with tunnel jacking) better able to accommodate anticipated pedestrian and bicycle traffic, and it will be much less disruptive to residents.

Vincent Stanton, Jr. is a director of the Belmont Citizens Forum. Opinions expressed in this writing are his own.



"Cut and cover" tunnel construction.

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