



Boxborough Conservation Trust Board of Directors



Rita Grossman, President (264-4077)
Ruth Zimmerman, Treasurer (263-3139)
Dave Bull, Secretary (263-5607)
Scott Bundy (263-5816)
Jeff Coldwell (266-2858)
Fred Dushin (263-4404)
Hugh Fortmiller (929-2552)
Jeff Fuhrer (263-3284)
Anne Gardulski (263-5716)
Jeff Glidden (263-8092)
Jeanne Kangas (263-8594)
David Koonce (263-1052)
Frances Nolde (929-2556)
Eric Tornstrom (263-2783)
Diane Torres (635-0471)

The Boxborough Conservation Trust (BCTrust) is a nonprofit, tax-exempt, 501(c)(3) corporation. Our mailing address is P.O. Box 626, Acton MA 01720-0626, Telephone: 978/263-3284
Web address: www.bctrust.org

To help us with our programs, please become a member by filling out the New Member Registration form on the back page.

Common Ground is mailed to all Boxborough residents, free of charge, as a quarterly publication of the Boxborough Conservation Trust, Boxborough, Massachusetts.

Comments and letters are welcome. Write to: Editor, **Common Ground**, P.O. Box 626, Acton, MA 01720 or send e-mail to mb,jf@verizon.net

Newsletter staff:

Michelle Brosnahan, Co-Editor
Jesse Floyd, Co-Editor
Glynis Hamel, Staff Writer
Pamela DeGemmis, Production
Hugh Fortmiller, Staff & Liaison
Ruth Zimmerman, Production Assistant
Catherine Christensen, Graphic Design

President's Letter

As many of you know, the BCTrust's board of directors comprises 15 talented and dedicated individuals who work to keep the Trust focused on its critical mission of land preservation. This year three Trust members moved on to other work--Frank Coolidge, Lisa St. Amand, and Mary Fuhrer. Frank is a charter member of the Trust, Lisa has been a valuable font of legal knowledge, and Mary has organized much of the publicity for the Trust's public events. On behalf of the Trust, I want to thank all three for their outstanding contributions to our work.

As this trio moves on, we welcome three new members to take their places on the Board. Jeff Coldwell and Fred Dushin were elected at the annual meeting, and Diane Torres was voted in by the Board at a regular meeting on April 14.

On May 19 the Board elected the following new officers: Rita Grossman, President; Ruth Zimmerman, returning as Treasurer; and David Bull, Secretary.

Lisa's departure leaves the Board with diminished legal expertise. Much of the Trust's work involves real estate transactions, and consequently it is extremely helpful for the Trust to obtain informal advice from someone with legal expertise. Of course, if and when a transaction progresses, the Trust will engage independent legal counsel to ensure everything is airtight. If you have professional experience in real estate or environmental law, and would be willing to consult the Board on an informal and *ad hoc* basis, we would be grateful for your help. Please contact one of the Trust's board members if you're willing to volunteer in this capacity.

(continued on back page)

BCT Annual Meeting

BY DAVE BULL, BCTRUST BOARD MEMBER

The BCTrust held its seventh annual meeting on Saturday, April 2 where about 50 friends and BCT members gathered at the home of Board member and treasurer, Ruth Zimmerman. Many thanks offered to Ruth for graciously offering her home to host this year's meeting.

The atmosphere, though foggy and rainy outdoors, was welcoming and comfortable inside for an evening of socializing and learning about the BCTrust's priorities during the past year and what to expect from the Trust in the coming year.

BCTrust president Jeff Fuhrer began with the traditional business meeting followed by a terrific talk on "The Geology of Boxborough" presented by Anne Gardulski, a BCTrust board member, Boxborough resident, and chairman of the Geology Department at Tufts University.

Jeff briefed the group on volunteer signups for upcoming events (such as Fifer's Day), nominations for Board member vacancies (Jeff Coldwell and Fred Dushin), BCTrust's 2004 financial summary, and a summary of Board activities during the year including land stewardship, land acquisition/conservation initiatives, and ongoing programs/publicity events the trust supports and sponsors.

Jeff and the Board expressed special thanks to departing Board member Frank Coolidge, the Trust's founding member and the heart and soul to the Trust for many years (you will be missed and never

(continued on back page)

The Geology of Boxborough: Presented by Anne Gardulski, BCT Board Member and Chair, Department of Geology, Tufts University

BY DAVE BULL, BCTRUST BOARD MEMBER

Anne Gardulski, gave a wonderful presentation (in layman's terms we should stress!) about the geology of Boxborough, complete with visuals, rock samples and microscopes! The talk was informative and interactive with Anne answering many good questions from the audience about Boxborough's geology and its importance as a natural resource to the town. Anne stressed that not only do Boxborough's geologic features contribute to the varied topography we see and enjoy in town (hills, swamps, and wetlands), but they also have provided a source of economic benefit (construction materials like sand and gravel), and perhaps most important from a conservation perspective, they are vital to sustaining Boxborough's water supply.

Anne began her talk by describing what makes up our land in Boxborough. The underlying bedrock in our town and surrounding towns is cut by huge faults (vertical and horizontal breaks or fissures in the rocks). None are earthquake active, fortunately for us, but these faults and other fractures are crucial from a water resources standpoint (more on that later).

At the land surface, Boxborough has sedimentary materials and glacial sediments. Below the surface, the bedrock is comprised primarily of what is known as the Nashoba Formation. This rock type is a classic example of metamorphic rock, which is formed under tremendous heat and pressure. The Nashoba Formation contains other rock types as well, including 412 million year-old granites ("Andover Granite"). The Andover Granite is an example of an igneous rock, which cooled from molten rock deep in the earth. This particular granite intruded, or moved into, the preexisting Nashoba Formation. An excellent example of all of these rock types can be seen at the rock outcropping located in Boxborough on the westbound side of Route 111 right after you cross over the Route 495 overpass.

The rocks of Boxborough also contain various minerals such as garnet and sillimanite, which are indicative of the very high temperature and pressure conditions associated with the formation of igneous and metamorphic rocks. There are other common minerals in the surrounding rock as well, such as quartz, feldspar and biotite mica. We also have some unusual minerals, such as copper oxides, that locally coat fracture surfaces in the rock. This indicates that water that carried dissolved copper moved through these breaks in the rock at some time in the past. Samples of many of these rocks and minerals were available at the exhibit tables set up during the meeting for everyone to touch and see firsthand.

So how did Boxborough get all of these rocks? In a nutshell, two major causes. Through tectonics, the earth's crustal plates move and collide causing mountains to rise, volcanoes to form and other geologic disturbances to occur, such as earthquakes. The Nashoba Formation and granite we see today in Boxborough are the result of continental plate tectonic activity that took place 450 million years ago!

The other primary source of rocks in Town is the result of more recent geologic events. The various sedimentary deposits at the surface, such as drumlins and eskers, were left behind 18,000 years ago as a result of mile-thick the glaciers that covered the land from New England south to Long Island. A spectacular and noticeable example of this is Boxborough's esker on the west side of Town near Cisco's complex (off Swanson Road). This is the largest preserved esker in this part of Massachusetts. Eskers formed as subglacial "tunnels" that filled with sediments as the ice sheet melted away. We are lucky our esker in Boxborough is preserved. Some eskers are good sources for sand and gravel; so many others have been mined into extinction.

Before taking questions from the group, Anne concluded her talk by

explaining why Boxborough's geology, its interrelationship with the landscape and how we use the land are critically important for properly managing our water resources. The fractured nature of the bedrock in Boxborough provides a subsurface aquifer which supplies much of our water needs in town. Without it, we would have serious challenges sustaining the town as it exists today. Glacial deposits are thin or discontinuous, and while there is some surface water in town, there is not enough to support the demand. The multiple fractures throughout the bedrock aquifer are what enable us to tap into subsurface water for our private home wells and other wells in Boxborough.

The interconnection of these geologic conditions with the landscape (the assemblage of ecosystems, wetland habitats, streams, and watershed areas), how we decide to use our land in town (development, public use, disposal, etc.), and the manner in which we draw water from these areas has significant implications on the present and future volume and quality of water. Although we may not often think about it directly, for these reasons it's in everyone's best interest to protect this vital resource as part of responsible planning and land management in Boxborough.

The BCTrust Board of Directors noted that many of the entries by Blanchard students in the BCTrust's 2004-05 writing contest mentioned trees and their importance to animal and human habitat. To honor these young writers the BCTrust has donated a crab apple tree to be planted in the patio of the new Sargent Memorial Library.



Conservation Options for Landowners

BY HUGH FORTMILLER, BCTRUST BOARD MEMBER

“Explore conservation options” was the repeated advice given to close to 40 landowners and other Boxborough townspeople at the Boxborough Conservation Trust’s “Conservation Options Forum” at Town Hall last March.

The evening included a discussion of tax advantages, estate planning, and other considerations for landowners interested in preserving Boxborough’s open spaces, a central mission of the BCTrust.

Bob Wilber, director of land protection for the Massachusetts Audubon Society, explained; “Landowners have many options,” from giving an outright gift of undeveloped land, to retaining ownership while restricting the land’s use to forestry, agriculture, or open space.” Massachusetts was the first state to conserve land for public use by establishing Boston Common in the early 1600s. Wilber added, “Today, the Commonwealth has the largest number of conservation trusts in the country.” BCTrust is one of 150 trusts in Massachusetts.

Wilber argued that land conservation preserves Boxborough’s rural character and beauty, provides recreation for townspeople, contributes to water resources, becomes part of the town’s growth management plan and protects native species. He then said, “Between ’82 and ’97, Massachusetts led the nation in forest land lost to development. We’re running out of time” to protect remaining open land in the commonwealth and in Boxborough.

In describing the implications of various land use choices, Wilber showed landowners how conserving land might produce income and lower property and estate taxes, whether one gives up ownership or retains it for family use.

According to Wilber, a landowner choosing to maintain ownership may reduce taxes on designated forest, agricultural, or open land. To reduce taxes by an average of 90 percent, the landowner must enroll the property in a “current use,” preferential tax assessment program with the local assessor.

A landowner who does not want to keep undeveloped land will find tax advantages in giving it to the town or a nonprofit land trust. The landowner could also sell it as restricted conservation land or

make it part of “planned giving” to a charitable organization.

If the land has appreciated in value, gifting part of the land may reduce capital gains taxes. Wilber pointed out that a charitable sale “can end up with the same result [financially] as selling to a developer.”

A landowner may place a conservation restriction” on land to permanently protect the land from development and to accrue financial benefit, while maintaining ownership. Under the Taxpayer Relief Act of 1997, these benefits may include direct payment for the restriction, income tax deductions, gift or estate tax savings, and property tax reduction.

Wilber outlined many combinations of conservation options in which a landowner or a land trust might set aside conservation land while developing a portion of the land or while allowing the landowner to retain a portion for private or family use.

A special guest at the forum, Jean Lynch of Stow, explained how she and Sudbury Valley Trustees created such a combination of land uses with Shelburne Farm, the 111-acre working farm she owned in Stow (where she and Wilber are directors of the Stow Conservation Trust). Mrs. Lynch decided she wanted to retain some income from the farm while creating “peace of mind” by taking care of both her own children and the town. She says she is very happy to retain eight acres for herself and her family, while about half of the remainder is preserved as productive agricultural land (managed by her son), and the other half has become forest and meadowland for the town. Lynch said that creating conservation land “is one of the decisions that can become more significant in time,” particularly as a “legacy to the community.”

Another forum guest, Jon Panek, echoed Lynch’s viewpoint, as he explained why he and his wife decided to help the BCTrust acquire the Paneks’ 55 acres (plus a neighbor’s parcel) to become part of Patch Hill, one of Boxborough’s largest and most beautiful wooded conservation tracts.

A resident of Harvard and a board member of Massachusetts Audubon, Mr. Panek and his wife called the property “the sanctuary,” a special place where they could

hike, cross country ski, and enjoy the wonders of the forest, birds and animals in the middle of a town which was rapidly becoming built up with development.

The Paneks were grateful to the BCTrust for convincing the town’s voters to support the conservation project with town money, supplemented by grants from the state and donations raised by the BCTrust itself. Mr. Panek concluded his remarks with further encouragement to Boxborough landowners to explore conservation options.

After Wilber answered a number of questions from townspeople about land conservation, the evening’s moderator, BCTrust President Jeff Fuhrer, encouraged landowners to get in touch with anyone on the BCTrust board for further, confidential help in looking at conservation options for their property.

Information can also be found in “Land Conservation Options, A Guide for Massachusetts Landowners,” published by The Trustees of Reservations headquartered in Beverly (www.the-trustees.org). Another such guide is published by Land Trust Alliance, with headquarters in Washington, DC (www.lta.org).

2005 T-Shirt Design Contest

This year’s winner of our annual fourth grade T-shirt design contest is Moira Harrison. Moira’s white ink sketch of a mother duck and ducklings waddles intently across the front of a colorful jade cotton T-shirt. The 1st and 2nd runners up are Elise Grape and Stephanie Lin. Our five judges had a difficult time choosing one design from the many talented 4th grade artists’ entries as evidenced by the many honorable mentions: Joseph Christmas, Olivia Desrochers, Jason Ku, Ryan La Forrest, Amanda Sidwell and Cory Small. The BCTrust gratefully acknowledges the work of all these students! This year’s and last year’s (Blue Heron) T-shirts will be on sale for \$15.00 each at Fifer’s Day in adult and children’s sizes.





New Member Registration

BCTrust welcomes new members to join in the effort of preserving and protecting Boxborough's undeveloped land. Anyone may join. Voting members must be 18 years of age or older and residents of Boxborough. All others are nonvoting members. Membership is on an annual basis. There are several giving levels. Please indicate the level of your tax-deductible contribution.

Name(s) _____ Date _____
Address _____
Telephone _____ Email _____

- \$25 - Individual
- \$50 - Family
- \$75 - Friend
- \$100 - Associate
- \$250 - Patron
- \$500 - Sustaining
- \$1000 - Sponsor
- \$2500 - Preservationist
- _____ Other

Please make your check payable to: The Boxborough Conservation Trust, and mail, with this form to: Treasurer, BCTrust, 110 Barteau Lane, Boxborough, MA 01719. An acknowledgment of your tax-deductible contribution will be mailed to you. Please contact your employer to see if matching funds are available. The BCTrust does not release information about members to third parties.

President's Letter *(cont. from p.1)*

Last but not least, the snow has melted and the days are stretching out, and that can mean only one thing: Time for the annual Red Sox ticket raffle! Once again this year, Scott Bundy has obtained two superb Sox tickets for Sat., August. 13 (time TBA) against the White Sox, who are pretty hot just now. Look for Trust members selling tickets at the Transfer Station, or come to Fifer's day on June 25th for your last chance to buy tickets before the winner is announced that evening. All of the proceeds go to the Trust.

Jeffrey C. Fuhrer

Annual Meeting *(cont. from p.1)*

forgotten Frank!). The Board also thanked departing members Mary Fuhrer and Lisa St. Amand for their dedicated service and valued contributions as Board members during their service terms. Jeff also recognized Tara Zantow and presented her with a gift in thanks for her outstanding efforts as editor with the development and growth of Common Ground in the past few years. The BCTrust is grateful to Co-Editors Jesse Floyd and Michelle Brosnahan for taking Tara's place for the March and June issues of **Common Ground**.

Fifer's Day Raffle & T-shirt Sales

The BCTrust will be selling raffle tickets to win a pair of Red Sox tickets to the game on August 13th against the White Sox. Raffle tickets are \$2.00 apiece or 3 for \$5.00. Buy them at the Transfer Station on Saturdays: June 11th and June 18th or at our booth on Fifer's Day, June 25th.

The BCTrust will be selling the 2005 (Duck & ducklings) and 2004 (Great Blue Heron) T-shirts; sweatshirts and T-Shirts with the BCT logo; and a new offering: a Boxborough Conservation Trust baseball cap!



P.O. Box 626, Acton, MA 01720

Non-Profit Org.
U.S. Postage
PAID
Permit No. 156
Acton, MA 01720

Resident
Boxborough, MA 01719