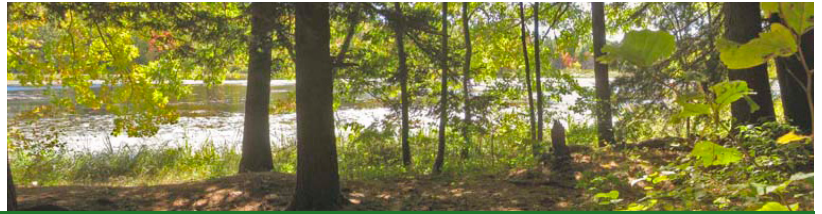


BROAD BROOK COALITION



www.broadbrookcoalition.org

Volume 27, Issue #2, Fall 2015

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About Us

Broad Brook Coalition (BBC) is a nonprofit, all-volunteer organization incorporated in 1988 with the mission of preserving open space and promoting affordable housing. Under a memorandum of understanding with the Northampton Conservation Commission, BBC is responsible for the day-to-day management of the Fitzgerald Lake Conservation Area. BBC's goals are to maintain and enhance the diversity and integrity of wildlife species and habitat at FLCA, promote outreach and education and provide public access for passive recreation that is compatible with habitat protection.

Our work in trail maintenance, stewardship, education and land preservation to expand FLCA is funded by the generous support of our members and occasional grants.

Broad Brook Coalition Annual Meeting

Sunday, November 8, 2015 • Florence Civic Center, 5 to 7 PM

Members and friends are invited to join the Broad Brook Coalition's annual meeting to celebrate 27 years of stewardship of the largest conservation area in Northampton. FLCA now comprises 852 acres.

As in past years, the meeting will include a reception featuring fall pies, a business meeting, and guest speaker.

This year's speaker is Scott Jackson, Associate Professor at the University of Massachusetts, who will give an update on the Conservation Assessment and Prioritization System (CAPS) and related Critical Linkages project. CAPS is a computer software program and an ecosystem-based approach for assessing the ecological integrity of lands and waters, subsequently prioritizing land for habitat and biodiversity conservation. Working with The Nature Conservancy and state agencies, UMass recently completed a comprehensive analysis of areas in the state where connections should be protected and restored to support biodiversity.

Mr. Jackson serves on the Whately Conservation Commission, Massachusetts Association of Conservation Commissions and the Board of Trustees of the Kestrel Land Trust.

President's Message

Bridge, Boardwalk, Dock

In the past two newsletters, we've explained the reasoning behind BBC's plan to replace the bridge, and to rehabilitate the boardwalk and dock, near the North Farms Road entrance to the FLCA. The needs are clear and we have now received some of the funding that will be necessary to complete this project.

The Bridge-over-the Brook is the western gateway to the entire trail system of the FLCA. After 20 years of constant use, it needs more and more attention as the original concrete supports have been undermined by erosion in the stream bed and have had to be replaced with wooden posts. Moreover, the two right-angle turns on the bridge are difficult for some to navigate.

The new bridge will have a significantly different design, consisting of a single, prefabricated fiberglass span, 30 feet long and six feet wide, with new wooden ramps leading up to it on both sides. The ends of the fiberglass span and the ramps will rest on Diamond Piers (Figure 1) to ensure a stable footing in the muddy areas adjacent to the brook. Diamond Piers, which require no excavation, will have less impact on the wetlands neighboring the brook than the existing concrete and wooden support posts, which will be removed. In addition, the new bridge will be in compliance with the Americans with Disabilities Act (ADA) for universal accessibility.

President's Message, continued

We expect that the new, gently curving structure will be esthetically pleasing as well.

The boardwalk and dock provide a unique opportunity for visitors to view the life of a freshwater marsh up close. The boardwalk serves a more practical purpose as well: Fitzgerald Lake is a very popular spot for recreational boating and fishing, and the dock at the end of the boardwalk provides a platform for launching kayaks and canoes. Although the boardwalk and dock are intended for use by physically handicapped persons, the height of the present curbing is too low for safe navigation by those who use wheelchairs.

To rehabilitate the boardwalk, sagging sections will be jacked up to a level height and the cross beams, which presently rest on the ground, will be bolted to vertical posts driven into the wet soil immediately adjacent to provide better support for the existing deck frame. The boardwalk also will be extended from the site of the present dock by approximately 100 feet into deeper water to facilitate boat launching and improve the view of the lake (Figure 2) This section will be supported by helical piers (Figure 1) driven into the lake bottom to achieve both stability and a minimal environmental footprint. The boardwalk extension will terminate in a viewing and boat launching platform (dock). In addition, new 4" curbing will be installed along the entire length of the boardwalk to comply with ADA standards, and benches will be placed at selected locations along the length of the structure.

A few weeks ago, we learned that BBC had been awarded a grant of \$50,000 from the Recreational Trails Program of the Massachusetts Department of Conservation and Recreation to support the improvements described above. Thus, we are well on our way to realizing our funding goals. Additional grant applications have been submitted to complete the necessary funding and we are optimistic that our rehabilitation plan can be carried out in the spring and summer of 2016 as foreseen.

Bob Zimmermann

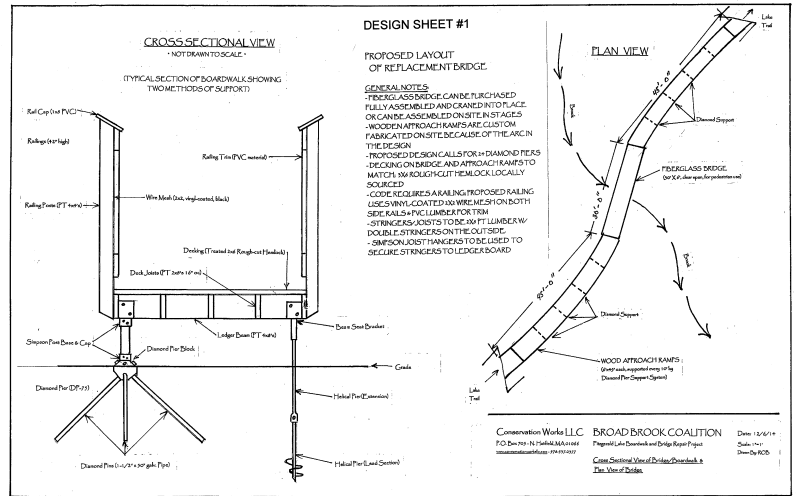


Figure 1.

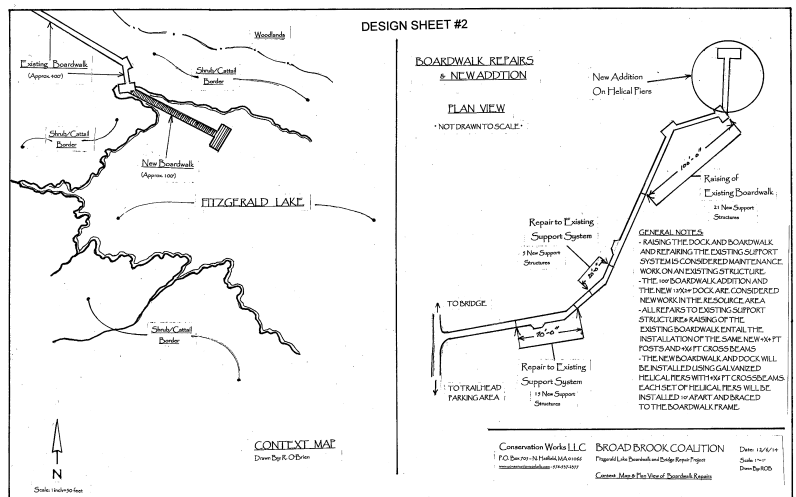


Figure 2.



Bob Zimmerman accepts grant award from Carol Sanchez, Commissioner of the Massachusetts Department of Conservation and Recreation, and Amanda Lewis, Coordinator of the Recreational Trails Program.

UMass Student Conducts Wildlife Survey at FLCA

Hello everyone! My name is Virginia Sowers and I am a senior at the University of Massachusetts-Amherst in the Natural Resource Conservation Department. My concentration is wildlife conservation with an emphasis on graduate student curriculum.



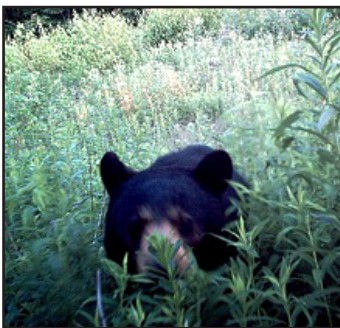
The author, Virginia Sowers, shows off a wood turtle.

I am also contributing officer in the UMass Chapter of the Wildlife Society. I have spent the last summer enjoying the beautiful scenery at the Fitzgerald Lake Conservation Area while conducting a mammal wildlife survey for the Broad Brook Coalition.

As a student and Wildlife Society student officer, I am intensely interested in pursuing outside field training and community service. After inquiring with faculty last winter about field projects, I was put in contact with Bob Zimmermann, a professor emeritus at UMass. I had learned he was interested in having a study done at FLCA to better understand the wildlife dynamics of the property. Upon meeting with Mr. Zimmermann, I offered my services and the campus resources. My goal was to perform the wildlife survey as both a learning experience for me and an opportunity to produce results for Mr. Zimmermann and BBC.

"The species that were documented show that FLCA is teeming with activity."

On April 19, I placed my first set of trail cameras. The goal was to document as many mammal species (not including voles, moles, shrews, or bats) as possible given the timeframe



A black bear peers through the wildflowers in Cooke's Pasture.



A white-tailed deer was caught on camera in South Pasture.

of five months. The study used nine trail cameras that were moved to new locations on average every 24 days. This required hiking into the center of the conservation area and collecting cameras, downloading data, and then deploying the cameras to new locations. Because we were purposely trying to photograph a wide variety of species, artificial carnivore lure and non-random placement techniques were used. As a result, 42 different sites within the 852-acre conservation land were monitored and 12 different wildlife species (excluding humans) were documented. The results that I am the most pleased with are the documentation of bobcats (*Lynx rufus*) and coyotes (*Canis latrans*) in the area.



This raccoon was photographed near the wetlands at the North Farms Road entrance.

Bobcat and coyote are notoriously hard to track during the summer months and can be elusive with a wide home-range radius. In the Northeast, bobcat and coyote are considered apex predators; which can be interpreted as a positive sign for the ecological system of the area.

An apex predator population typically only appears if there are resources to sustain the population. While we can't conclude the existence of a population within FLCA, which is unlikely given home-range requirements, we can see that FLCA is contributing to wildlife connectivity of Massachusetts. Surprisingly, I was unable to document the American beaver (*Castor canadensis*) on my trail camera after purposely placing cameras around fresh beaver chews and tracks areas. Yet, I was able to capture a swimming beaver with my cell phone! There were also numerous other species that were not documented, but should have been present based on locality and habitat preference.

Red and gray fox, rabbit, fisher, weasel, and opossum are just a few species that I was disappointed not to have documented in the area. This follows the wildlife camera trapping rule of thumb: just because you don't get a picture of something doesn't mean it doesn't occur there. We all know there are beavers at FLCA! Regardless, the species that were documented show that FLCA is teeming with activity.

continued

Wildlife Survey at FLCA, continued

With such a small data set, it is hard to draw definite conclusions, but with the information that was obtained it appears that if you are planning an outing at the park during the daylight hours you are more likely to “run into” a gray squirrel, Eastern chipmunk, black bear, porcupine, coyote, or human and domestic dog! During the night the activity is lead by the white tailed deer and raccoon.

I thoroughly enjoyed all of the wonderful hiking and beautiful scenery I experienced while hiking through the Fitzgerald Lake Conservation Area this last summer. I hope to continue to interact with both the wonderful people and exquisite wildlife that treasure this gem of Northampton.



Volunteers start work in a section of the Beaver Brook/Broad Brook Conservation Area . From left: Matt Verson, Jason Johnson and Deb Jacobs of the Leeds Civic Association and David Pritchard of BBC. (Bob Zimmermann)

All species documented at FLCA. Total groups of photos with minimum half hour intervals per species; with distinction between daytime and nighttime photos determined by sunrise and sunset times.

Species Photographed				
Common Name	Scientific Name	Day	Night	Total Events
American Robin	<i>Turdus migratorius</i>	1	0	1
Bird spp. (Other)	<i>Aves</i>	3	0	3
Black Bear	<i>Ursus americanus</i>	3	0	3
Bobcat	<i>Lynx rufus</i>	1	1	2
Crow	<i>Corvus brachyrhynchos</i>	1	0	1
Coyote	<i>Canis latrans</i>	3	2	5
Dog, Domestic spp.	<i>Canis lupus familiaris</i>	5	0	5
Eastern Chipmunk	<i>Tamias striatus</i>	11	0	11
Gray Squirrel	<i>Sciurus carolinensis</i>	38	0	38
Human	<i>Homo sapien</i>	17	1	18
Deer Mouse	<i>Peromyscus maniculatus</i>	0	1	1
Porcupine	<i>Erethizon dorsatum</i>	2	0	2
Raccoon	<i>Procyon lotor</i>	1	13	14
White-Tailed Deer	<i>Odocoileus virginianus</i>	17	25	42
Unknown Large Mammal		3	0	3
Unknown Medium Mammal		1	0	1
Total		110	43	153

New Collaboration Among Conservation Organizations

Stewardship of Northampton conservation areas and greenways is splintered among a number of volunteer organizations, each responsible for keeping up trails, combating invasive plants and providing information about their own area. Until now there has been little coordination among these groups, but this changed in May when representatives from the Friends of Mineral Hills, Meadow City Conservation Coalition, Leeds Civic Association, Mill River Greenway Initiative and Broad Brook Coalition met informally to discuss topics of common interest, the potential for mutual assistance, and possibilities for joint projects. The idea behind the meeting evidently struck a positive chord as the group, provisionally known as the Northampton Conservation Alliance, decided to meet again this fall and twice yearly thereafter.

While the first meeting touched on many subjects and was intended to test the waters for continued interaction, future meetings will be devoted to specific topics that are of general relevance to all of the conservation areas. The upcoming fall meeting, for instance, will focus on best practices for controlling invasive plants and will feature two well-known experts in this field, Cynthia Boettner (US Fish & Wildlife Service) and Chris Polatin (Polatin Ecological Services). At least one collaboration has already emerged from last spring’s gathering: several members of the Leeds Civic Association and the Broad Brook Coalition have begun work on an action plan for managing a section of the Beaver Brook/Broad Brook Conservation Area on Route 9 near the Williamsburg town line with an eye to developing it for recreation and wildlife viewing.

Living Memorial to Late Board Member Frank Olbris

Friends and family members of Frank Olbris, a founding member of the Broad Brook Coalition who died in 2013, gathered at Look Memorial Park last



Linda Olbris, sister of the late Frank Olbris, opens the dedication of the dogwood planted at Look Park in Frank's memory. (Bob Zimmermann)

spring to dedicate a small dogwood in his memory. The tree was donated by the UMass University Staff Association. The union was one of several causes to which Frank dedicated much of his life. He was also an activist for single-payer health care and for land preservation. He served on the BBC board of directors from its founding until his death two years ago. Visitors to the park can see the dogwood across the road from the Dow Pavilion. "Honoring our union brother," the plaque at the base of the tree states, "A defender of the people and of the earth."

Aquatic Plant Guide Available

You are probably familiar with the water lilies you see on Fitzgerald Lake during the summer, but do you know what other types of aquatic vegetation are in the lake? The Broad Brook Coalition Stewardship Committee was interested in what was growing there and wanted to ensure that no invasive species were present, other than water chestnut which we have been controlling for the past few years. Accordingly, BBC asked Matt Hickler, a botanist and ecologist, to identify the aquatic plant life in the lake. Matt surveyed the lake by kayak and took samples of the vegetation growing there. Fourteen species were identified, and other than water chestnut, no other invasive species were found.

The most visible plants in the lake are water lily and watershield, which has a similar leaf but only produces small red flowers, unlike the prolific white water lily blooms. You may have also noticed patches of small roundish green vegetation about the size of a pinhead floating on the surface. They are Brazilian watermeal and greater duckweed. Many of the other species of aquatic plants are largely submerged and difficult to see from the shore.

BBC has prepared a guide, Aquatic Plants of Fitzgerald Lake, which pictures the various species, their ranges, descriptions as well as habitat and culture. A link to the electronic version of the guide can be found on the BBC website home page, www.broadbrookcoalition.org, under "New: Fitzgerald Lake Aquatic Plants." The board plans to develop other guides to show the variety of plant and animal life found in this conservation area.

Bill Williams

Call for Volunteers: We Need Your Help!

Members' donations are crucial to our organization, enabling us to maintain trails and improve wildlife habitat and to contribute to land purchases to expand the conservation area. We could also use your time and labor!

As an all-volunteer organization, BBC relies on members who are willing to contribute a few hours here and there to boost the work of various committees. Please consider joining the Trails or Stewardships Committees, signing on as a steward to keep an eye on a particular trail, or assisting with our new goal to expand our education outreach. We especially want to reach out to schools and youth and student groups to

facilitate projects that promote science and environmental education.

About 50 volunteers in the community give their time to help BBC manage FLCA, with work that ranges from scheduled work days in the late spring and summer, routine trail maintenance and special projects like building or repairing bog bridges.

If you would like to join our corps of volunteers, just check off one of the categories in the membership renewal form and provide a phone number or email address. We will get in touch with you. A willingness to help is the only requirement.

Margaret Russell

The Beaver Challenge

You have to hand it to beavers. Over the past decade, (at least!), they've been trying to plug up the outlet drain at the Fitzgerald Lake dam for reasons known only to themselves. Maybe it's just their idea of how to spend a pleasant afternoon in the lake. After breaching a wire fence a few years ago, the installation of a new chain-link fence in 2013 was supposed to be their Waterloo. But alas, they soon found a way to burrow under the fence and once again packed the drain with sticks, mud and other debris. Each iteration of this process led to a rise in water level of 12-18 inches, inevitably flooding the dock and boardwalk at the opposite end of the lake. So why not trap the troublesome rodents and be done with them? Not a very palatable solution as the FLCA is, after all, a conservation area and, besides, beaver expert Mike Callahan, whose company Beaver Solutions is devoted to finding peaceful accommodation between beavers and humans, predicted they'd be back in a couple of years.

Then Mike hit on an ingenious solution: pack the bottom of the chain link fence with a wall of rock to seal the gap between the fence and the lake floor. Accordingly, the City had 20 tons of trap rock (yes, really) dumped on the dam



A big pile of rock was delivered to the edge of the dam, ready to be moved by hand to the fence around the drain. (Bob Zimmermann)

above the drain. On August 14, Mike and a team of 10 brave souls began distributing the rock around the chain-link fence by hand, aided by two technologically advanced pieces of equipment specifically designed for the task: a chute to get the rock to the edge of the lake and a float to deliver the rock to the outer reaches of the fence. After only 10 tons of rock had been put in place, Mike declared the job done and to this day, the beavers have not found a way to evade the new barrier to their favorite pastime, though we suppose they've been thinking about it feverishly ever since. And what about the other 10 tons of trap rock? We're keeping them in reserve, just in case.

Bob Zimmerman



Innovation was required for the task of moving 10 tons of rock. Volunteers built a wooden chute to get the rocks to the water's edge and a float to move them around the perimeter of the fence. (Bob Zimmermann)



The rock-moving team - happy to be finished! From left: Jim Reis, Dave Pritchard, Steve Harding, Dick Wynne, Dave Herships, Mike Murphy, Mike Callahan, Brigid Glackin, Virginia Sowers. (Bob Zimmermann)

Restoring South Pasture

Bob Zimmermann

Goldenrod and Joe-Pye weed flourished this summer after South Pasture was cleared in the spring. (Bob Zimmermann)

Though the FLCA is rich in wetlands and upland forest, there is very little of two other important habitats, fields and shrublands. Cooke's Pasture, a seven-acre parcel in the center of the FLCA, has been consistently maintained as early successional shrubland through periodic mowing, and a sustained effort has been made to control invasive plants such as glossy buckthorn and spotted knapweed, which had proliferated there a decade ago. South Pasture, however, just south of the western portion of Fitzgerald Lake, has not received much attention in recent years owing to its relative inaccessibility and, until this spring, had become overgrown with autumn olive, speckled alder and multiflora rose. Last fall, a crew of nine BBC volunteers and board members cleared a section by hand, but it was evident that a more aggressive approach would be needed to clear the whole area.

Through the generosity of Rick Fitzgerald, owner of land to the south who opened an old woods road for our use, we were able to arrange for the mowing of South Pasture in May for the first time in seven years--a first step in restoring this three-acre parcel to grassland. Owing to the extensive growth, Richard Jaescke, proprietor of RCW Landscape Construction, decided to use a skid steer fitted with a powerful rotary mower for the job. This piece of equipment is awesome to watch in action as it can easily plow through thick underbrush and small trees, cutting them down to the ground and chopping them into small fragments. By summer, native plants such as goldenrod and Joe-Pye weed were thriving. South Pasture will now be mowed regularly and we will investigate the possibility of expanding the cleared



Left/ Dick Wynne cuts down small trees that sprouted over the last years in South Pasture. (Bob Zimmermann)

Below/ The South Pasture work crew takes a break: from left, Al Shane, Bob Zimmermann, Alan Marvelli, Ivan Oransky, Steve Harding, Dave Herships, Rufus Chafee, and Christian Smith-Ahearn.



area since this kind of habitat is greatly valued by a variety of animals and birds such as deer, turtles, woodcock and ruffed grouse.

Rich Jaescke's work-horse equipment, a skid-steer mower, was required to clear the thick growth in South Pasture. (Bob Zimmermann)





The bridge-builders take a break. From left: Dave Ruderman, Keith Davis, Dave Herships, Steve Harding, Jim Reis, Hannah Mower. (Bob Zimmermann)

New, Sturdy Bridge for Halfway Brook Trail

After a long, snowy and cold winter, Broad Brook Coalition volunteers and Trails Committee members began in May to build a new footbridge across the small stream that runs under the Halfway Brook Trail some 600 feet in from the Coles Meadow Road trailhead near Laurel Park. The new bridge replaced the old bog bridge whose foundations had been undermined by the stream and was deemed unsafe.

While the problems with the failing bog bridge were identified last December, by the time the Trails Committee visited the site to evaluate the situation, circulated photos to various parties, and set up a site visit with Pete Westover of Conservation Works, LLC, a professional trail and bridge builder, it was January and the snow was falling. The decision was made to postpone construction until spring.

Alex Ghiselin, a former Northampton builder and retired city councilor, donated his services to design the 16-foot long bridge. Because the west side of the stream is some 16" higher than the east side, the east end of the bridge had to be raised to make it level, and two large steps were added for easy access.

Because of the 600-foot distance from the road, the construction materials were trucked into the site thanks to the generosity of Broad Brook Coalition board member Dick Wynne who lives on the adjoining land. (Special thanks to BBC Trails Committee member Steve Harding, who volunteered the use of his truck). On the day the bridge was built, notwithstanding a particularly determined swarm of hungry mosquitoes, the work went quickly and most of the

work was accomplished by noon. The BBC thanks volunteers Jim Reis, Steve Harding, George Kohout, Hannah Mower, David Ruderman, Rufus Chaffee, Keith Davis, John Sass and Alex Ghiselin.

Dave Herships

FLCA Boundaries Are Now Official

The boundary lines of undeveloped property are often very informal, sometimes even described in a deed as along a stone wall or a certain number of feet from a brook. Such was the case with the expansion of the Fitzgerald Lake Conservation Area. Land was added piece by piece, in most cases, with only the deed descriptions to define the property lines.

That has changed, thanks to a survey of the entire Fitzgerald Lake Conservation Area commissioned by the City's Department of Planning and Sustainability. The boundaries are partially marked. The surveyor, Northeast Survey Consultants of Easthampton, will complete installation of the markers once leaves are off the trees.

"It was a massive undertaking, but it will make our management and future acquisitions much easier," said Wayne Feiden, Director of Planning and Sustainability.

Funding for the project came from recent land acquisitions, with purchases now including monies for tasks like this, Community Preservation Act, and undesignated land funds, Mr. Feiden said.

The survey has been recorded and is available on line on the Hampshire Registry of Deeds website (Plan book 235, Page 15).



Naturalist Laurie Sanders addresses participants of one of BBC's Walks and Talks last spring. Laurie and her husband, Fred Morrison, led the guided walk on the geological and natural history of the Spring Grove Cemetery and nearby conservation area. (Bob Zimmermann)

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To receive occasional email alerts regarding BBC Walks and Talks and Volunteer Work Days, go to the website and look for "join the listserv" under the events tab at the top of the page.

Already a member? Consider passing this page on to a friend!

Please Join Us!

If you're not already a member, please complete this form and return it with a check to:

Broad Brook Coalition, P.O. Box 60566, Florence, MA 01062

\$25 for Individual membership \$35 for Family membership. *All contributions are tax deductible.*

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Please sign me up for a paperless newsletter (email address required).

I prefer to receive a printed newsletter by mail.

I've included an additional tax-deductible contribution to the Land Preservation/Stewardship Fund.

Please do not include my name on any listing of contributors to BBC.

Broad Brook Coalition needs your help, too!

We appreciate membership dues, but want you know that you can contribute in other ways.

Members and friends are needed to help carry out our goals.

Please consider one or more of the following volunteer opportunities:

Trail Committee or Trail Steward Stewardship Committee Occasional Work Days

Clerical Help Newsletter Writer Walks and Talks Fundraising Campaigns