



**Citizens for
Lexington
Conservation**

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Eileen Entin, Chair

April, 2016

Kate Fricker, Editor

IN THIS ISSUE

CLC Annual Meeting	3
Spring Walks	3
Big Backyard	6
Benches in Memory of Rick Abrams	7
CLC and Cary Library	9
Blazing Star returns to Lexington	10
New Routes ACROSS Lexington	11
Stream Daylighting Project	13
Photo Credits	
Photo Quiz	
Answers to Photo Quiz	16



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Tulip Tree Blossom

2016 CLC Dues are Payable Now

The status of your dues payment is shown on the address label of snail-mailed newsletters or near the top of the e-mail announcing this issue. If it says Dues paid April 2015 (or earlier), it is time to renew your membership for 2016. If it says "Complimentary Copy," you are receiving a complimentary copy of our newsletter because you are a Town Meeting member or other public official in Lexington. We hope that those who receive complimentary copies will find our organization of value and will in time become dues-paying members. To join CLC or renew your membership, please send \$20.00 to Citizens for Lexington Conservation, P.O. Box 292, Lexington, MA 02420-0003. Dues can also be paid by credit card through PayPal from a link on our web site, <http://www.clclex.org>.

There is an electronic version of the CLC newsletter, sent as an email notice, with a link to the newsletter on the CLC web site. This version of the newsletter has illustrations in color and live links, it arrives much sooner than the snail mail version, it saves paper, and it costs CLC about \$1 less per copy. If you are currently receiving your newsletter by snail mail, you may convert to e-mail by contacting Judy Mello at jmacmello@comcast.net.

But Please Note: CLC receives low non-profit bulk mail postal rates as long as it follows the prescribed postal regulations. To keep these rates we must send at least 200 snail mail copies at each mailing. If everyone were to ask for the email version of the newsletter, then we wouldn't have the required 200 copies in the mailing, and it would cost us much more. For that reason, sometimes we send a paper copy to someone who expects the electronic one. If this should be the case for you, we can change you back, or you can just pick up your electronic version at [clclex.org](http://www.clclex.org)

CLC Open Positions

Newsletter Assistant Editor: Would you like to help put together the CLC Newsletter? We are looking for an individual to assist our current newsletter editor, Kate Fricker, in organizing and putting together the CLC newsletter. The editor's duties include soliciting ideas for articles, accepting submitted articles and laying them out in the newsletter, and getting the newsletter printed. We publish three newsletters each year, our Candidates Newsletter in February, a spring newsletter in April and a fall newsletter in September.

Walks Coordinator: Would you like to organize and help publicize our fall, winter, and spring walks? The coordinator's duties include contacting previous and potential walk leaders to arrange scheduling details as well as helping to publicize the walks through local media outlets and list-serves. Our current walks leader, Jane Warren, will guide you through the process initially to help you gain experience. Jane has a list of walk leaders that she can pass on.

Participation in bi-monthly Board meetings is beneficial, but is not a requirement for either position. If you are interested in further information about either of these positions, please contact Eileen Entin, eileenhome@gmail.com, 781 862-6418).

Dr. Sam Telford, Expert on Ticks, to speak at CLC's Annual Meeting

You are invited to Citizens for Lexington Conservation's annual meeting on Wednesday, April 27 at 7:00 pm. Our featured speaker will be Dr. Sam Telford, Professor of Infectious Disease and Global Health at Tufts University, who is a renowned expert on ticks. Dr. Telford is a leading researcher on vector-borne infections specializing in tick-borne infections, and has broadened his work to include mosquito-borne pathogens. He has published over 200 peer reviewed publications on the ecology and epidemiology of vector-borne diseases. Prof. Telford is strongly committed to public health in this sphere. In his talk, he will explain the life cycle of ticks, when and where they appear, and why they seem to be on the increase. He will explain how you can avoid getting bitten by ticks, and what to do if one does bite you.

Our annual meeting will be held in the large lecture room at Cary Memorial Library. The public is welcome. Refreshments will be served. Please join us to hear about CLC's upcoming activities and to learn from our knowledgeable speaker.

CITIZENS FOR LEXINGTON CONSERVATION 2016 SPRING WALKS

All walks are free and open to the public

Birding and Service Walks:

Saturday April 9, 8-10 am, Early Season Birding at Dunback Meadow

Early migrants will be our target, particularly Pine and Palm Warblers, but there may also be Phoebe's, several sparrows, both kinglets and thrushes. Walk will be cancelled if it rains. Meet at Allen Street entrance opposite Pitcairn Place. (Co-sponsored with the Menotomy Bird Club)

Leader: Bobbie Hodson (781-861-9421, robertahodson@comcast.net)

Saturday April 30 1-3 pm, Garlic Mustard Pull at Lincoln Park

Garlic mustard seeds can take up to 7 years to sprout, which requires repeated efforts to control and eradicate this aggressive invasive species. Come join CLC's multi-year effort to pull this year's progeny from along the pathways in Lincoln Park. Bring gardening gloves. Meet at the Fitness Path Trail entrance on Worthen Road across from the LHS playing fields.

Leader: Keith Ohmart (781-862-6216, kohmart@verizon.net)

Saturday May 7, 8-10 am, Peak Migration Birding at Dunback Meadow

We'll be on the lookout for a variety of migrants and breeding birds: warblers, swallows, vireos, and many more. Meet at Allen Street entrance opposite Pitcairn Place. (Co-sponsored with the Menotomy Bird Club)

Bobbie Hodson (781-861-9421, robertahodson@comcast.net)

Sunday May 8, 7-9 am, Warbler Walk in Lower Vine Brook

Warblers are small, beautiful tropical birds that fly north to breed. Over fifteen different species of warbler stop off in this sheltered area during their spring migration to the forests in northern New England and Canada. Depending on the weather and the foliage, you may see a dozen species in a morning. Children with adults are welcome. Wear boots if it's wet, and bring binoculars and a bird book. No dogs. More than light rain or lightning will cancel the event. If the weather is uncertain call the leader. Meet at the entrance to the Lower Vine Brook conservation area opposite 121 Vine Street.

Leader, Harry West (671-461-9500, hwest2020@gmail.com)

Wednesday May 11, 6:30-9 am, Western Greenway Bird Walk

The Western Greenway consists of over 1200 acres of interconnected open space in Waltham, Lexington, and Belmont. There has been little documentation of migratory or breeding birds in many parts of the Greenway. We will choose a section in Lexington that most likely few Menotomy Birders know or bird. Meet at Cart Path Lane, off Walnut Street in Lexington. 6:30-9:00AM (Co-sponsored with the Menotomy Bird Club)

Leader: Roger Wrubel (rwrubel@massaudubon.org)

Younger Naturalist Walks:**Sunday May 1, 1:00 pm, Children's Book Walk at Lincoln Park**

(Walk repeats on May 4. See below.)

Join us as we stroll along through some of Lexington's field, forest, and wetland spaces, reading In the Tall, Tall Grass and looking for real-life characters from the story in our surroundings. Designed for preschool and young elementary children and their care-givers we'll bring a book to life as you enjoy the great outdoors. Meet at the entrance to the Lincoln Park Fitness Path on Worthen Road across from the Lexington High playing fields. Inclement weather will cancel the walk - check CLC website or email Walk Leader.

Walk Leader: Alex Dohan, amdohan@gmail.com

Wednesday May 4, 10:30 am, Children's Book Walk at Lincoln Park

Join Cary Memorial Library for a StoryWalk(R)! We'll enjoy a walk while reading Denise Fleming's *In the Tall, Tall Grass*. The StoryWalk(R) is produced in partnership with The Citizens For Lexington Conservation and Cary Memorial Library.

Meet at the entrance to the Lincoln Park Fitness Path on Worthen Road across from the Lexington High playing fields. Inclement weather cancels.

Leader: Alissa Lauzon, alauzon@minlib.net

Saturday June 18, 10-11am, Family Nature Walk in Dunback Meadow

Bring the children and join us at the entrance to Dunback Meadow behind the Bowman School for a one-hour stroll through one of Lexington's lovely conservation properties. We will explore our surroundings and investigate whatever we find. Since it is Fathers' Day weekend, we especially invite dads and grand-dads to bring kids, but any and all family members are welcome. Inclement weather cancels. Check CLC web site, www.clclex.org.

Leader: Alex Dohan, amdohan@gmail.com

General Nature Walks:

Friday May 13, 10-11 am, Stream Daylighting at Willards Woods

Have you been wondering about what is going on around the stream below the pond at Willard's Woods? This is your chance to hear about it from the project managers. The DPW Engineering Division has elected to open up a long culverted stream rather than simply replace the failing culvert. Town Engineers John Livsey and Dave Pavlik will explain the thought and processes that went into the project. Meet at the Willard's Woods North Street Parking Lot. Inclement weather will cancel.

Leader: Alex Dohan, amdohan@gmail.com

Saturday May 14, 10-11:30 am, Invasive Plant Identification

Plants are plants, right? Wrong! Find out why. Come on a walk in Dunback Meadow to identify some of the more common invasive plants and trees inhabiting our town and perhaps your backyard. Karen Longeteig has been studying invasive species and landscape design for 15 years, and will share some of her tips for dealing with these aliens. Park on Allen St. off of Waltham St. opposite the stone gateway lions. Rain date May 21st. Leader: Karen Longeteig (781-862-4094, karen.longeteig@gmail.com)

Tuesday May 17, 10-11:30 am, Silver Sneaker Walk

Explore walking opportunities from the new Community Center along a leisurely 2 mile loop. The walk will include a foray into Dunback Meadow and a traverse of the Cotton Farm and Upper Vine Brook Conservation properties, utilizing sidewalks, quiet streets and graded footpaths. Meet at the entrance to the Community Center, 39 Marrett Road

Leader: Keith Ohmart (781-862-6216, kohmart@verizon.net)

Sunday May 22, 1:30 – 3:30 pm, ACROSS Lexington Route E

Take a walk with us on the newest ACROSS Lexington route! This 4.3 mile loop traverses Lincoln Park and two Town conservation parcels -- the Poor Farm and Meagherville Woods, while skirting the Pine Meadow Golf Course and Parker Meadow. Learn how the Poor Farm got its name, and the histories of Lincoln Park and the 97 acre Meagherville Woods property. Meet at the bikeway behind the Lexington Depot. Heavy rain cancels.

Walk leaders: Peggy Enders peggyenders@gmail.com and Eileen Entin eileenhome@gmail.com

Monday June 6, 6-8 pm, Wild Edibles of Lexington's Waysides

Lexington is home to over 70 species of edible wild plants, both native and non-native, including plants considered to be weedy or invasive. Some are more nutritious and/or flavorful than their cultivated counterparts. Join Russ Cohen, expert forager and author of *Wild Plants I Have Known...and Eaten*, on a two-hour ramble in and around Lincoln Park to learn about eighteen or more of these species. Russ will present information on identification tips, edible portion(s), season(s) of availability and preparation methods, as well as general guidelines for safe and environmentally-responsible foraging. Meet at the Fitness Trail entrance at the crosswalk on Worthen Road across from the Lexington High playing fields. Leader: Russ Cohen eatwild@rcn.com

Thank you, Walk Leaders

CLC is grateful for the people who volunteer to lead our spring and fall walks. Our thanks to Bobbie Hodson, Tom Whelan, Bob Hausslein, Keith Ohmart, and Fran Ludwig for leading walks last fall.

Walks were arranged by Keith Ohmart, kohmart@verizon.net.

Publicity was by Cynthia John, cbj190@yahoo.com

Big Backyard Program Invites Volunteers

By Fran Ludwig

If a child is to keep alive his inborn sense of wonder, he needs the companionship of at least one adult who can share it, rediscovering with him the joy, excitement and mystery of the world we live in. Rachel Carson

Did you know that over 3000 Lexington elementary students enjoy regular nature walks on their school grounds and adjacent conservation lands? For 25 years, the Big Backyard Program has enlisted volunteer walk leaders to share their love of the natural world with small groups of K-5 students. With many pairs of young eyes observing, wonder-full things are seen—a giant cicada killer flying off with its prey, curly egg shells from hatched snapping turtles, fuzzy unfurling beech leaves, or alien-looking galls on an oak branch.

While the seasonal grade level nature walks are designed to integrate content from science and social studies curricula, the skills of careful observation, asking good questions, and problem solving are emphasized throughout the program. While each walk has a theme, sometimes the most memorable experiences are ones that are unexpected—a pair of hawks circling in the sun, a fox poised at the edge of the woods, or red striped salamanders scurrying under a log.

You can see more about the Big Backyard Program here:

<http://lps.lexingtonma.org/Page/2304> To see an introductory video click “ [here](#) ” on the web page. Each school lists specific grade level walk guides, and contact information for the volunteer coordinator for that school. Early grades have 3 walks a year and Grades 4 and 5 have 1-2 walks per year. Unlike the rest of the BBY walks, grade 4 BBY experiences are away from school grounds: Whipple Hill is a geology field trip to Lexington’s “highest peak; another Grade 4 trip is a visit to the Old Res to study crayfish habitat. Even “competition” from electronic screens can be transformed into a Big Backyard experience, as some students observe and report on their first spring robin, the status of monarch butterflies, or the arrival of red winged blackbirds, on the web site Journey North:

<https://www.learner.org/jnorth/>

Not only does the Big Backyard Program enhance the K-5 science, social studies, literacy and art programs, it provides the basis for an appreciation and respect for the ecosystems we depend on for survival. “If we want children to flourish,” says Antioch New England

educator David Sobel, “we need to give them time to connect with nature and love the Earth before we ask them to save it.” In addition, an expanding body of scientific evidence links human experience in the natural world to better physical and mental health, enhanced cognitive abilities, and a deeper environmentalism according to Richard Louv, author of Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder.

Big Backyard walks are great fun for kids and volunteer guides. Would you like to participate? No previous experience is necessary and commitments are flexible. Approximately 2 hours total per walk include a training session and time with the children. (Note: All school volunteers need to complete a CORI form for a background check.) If you enjoy children and nature and are available during the school day, this is for you! If you have questions or would like to volunteer, contact Fran Ludwig, fludwig12@yahoo.com or 781-861-7231.



Benches in Memory of Rick Abrams in Dunback Meadow

By Susan Kenyon

Soon after my husband, Rick Abrams, died in June 2014, members of his book group asked our family about creating a physical memorial for Rick. It was obvious from the initial discussions that the memorial should be somewhere along ACROSS Lexington: The Rick Abrams Memorial Trail Network. Rick was a founding member of the Greenways Corridor Committee (GCC), which has been charged by the Board of Selectmen with developing the ACROSS route system. Rick was instrumental in all phases of the early development of the ACROSS system and energetic in promoting its use widely.

A couple of months before Rick died, we were out walking on Route B in Dunback Meadow, and as we passed a spot with a boulder and a stunning view, he commented that it would be great to have a bench there. As soon as the book group asked me about a

location for a memorial, this location came to mind. We knew that Rick would want this memorial to be modest and to blend into the setting. Rick's book group, former work colleagues from Tom Snyder Productions, an education technology company, and neighbors raised funds for the cost of the memorial benches.



Over the course of 2015, members of the book group and I worked with the GCC, the Lexington Conservation Commission, David Williams, a Trustee of the Rick Abrams ACROSS Lexington Trust, and Charlie Ronchetti, a Lexington mason, to develop a plan to install benches with minimal impact on the conservation land. The Conservation Commission approved the placement of the benches in November 2015.

David Williams, Charlie Ronchetti and I located two curved pieces of granite from Rockport, Massachusetts, which were quarried sometime during the 1800's and were hand tooled. The grain of the granite is a coastal salt and pepper, the same type of granite being used to restore the Longfellow Bridge in Cambridge, Massachusetts. We felt that this granite would complement the boulder at the Dunback Meadow location. The book group created the plaque for the benches, and Charlie Ronchetti installed the benches in December 2015.

The benches look out over Dunback Meadow and provide an excellent spot to contemplate nature. A map with the location of Rick's Benches marked will be available online at <http://www.lexingtonma.gov/across-lexington> or in paper form at many locations around Lexington, including the Tourism Office and Carey Library.

Rick's family is so grateful to all the members of the Lexington community who assisted in installing the benches. We hope that all will find time to sit on Rick's Benches and enjoy the view.



CLC Begins Cooperative Venture with Cary Library

By Meagan Parker

Cary Memorial Library is excited to announce the beginning of a new cooperative venture with Citizens for Lexington Conservation (CLC) to expand educational opportunities involving Lexington's natural resources. The first offerings will debut in May with a display in the library about bird migration and the scheduling of a series of Book Walks exploring some of the beautiful natural resources of the conservation lands of Lexington.

For adults and families, a display of birding books and maps will be available on the main floor. This display will feature books from the Cary Library collection, along with maps of local migratory birds and their migration patterns. In partnership with CLC member Keith Ohmart, a one page guide to migrating birds will be available for patrons to take with them. This identification guide will provide small photos of birds likely to be seen in Lexington during the spring migration, along with a brief description of the bird and where they can be found. Along with the larger bird guides available for checkout, we hope that these will encourage the citizens of Lexington to explore the conservation lands and appreciate the wildlife that shares our community. This display will be up throughout May.

Of a more general nature, the Children's department will be working with members of the CLC to coordinate a series of Book Walks in early May. A book walk is a guided tour of the conservation lands where particular spots along the walk correspond to pages in a storybook. At these resting spots, the next page of the story will be read. These Book Walks will take place on May 1 at 1 pm and on May 4 at 10:30 am. Meet at the Fitness Path entrance to Lincoln Park at the crosswalk on Worthen Road across from the Lexington High playing fields. Please check with the Children's Librarian for further information about these events. Staff from the Children's department will also be happy to help you find other books about nature, birds, and the environment for your children. In addition, the library is working for the third year in a row with the Bike, Walk, N Bus Week Committee to celebrate sustainable modes of transportation. During this week, the library will host an interactive board asking town residents to explain their preferred mode of transit and what can improve their biking or walking experience to the library. Please stop by and contribute your thoughts. The library has bike racks at each entrance and encourages you to bring your bike! We are very close to the Minuteman Bike Trail, and also on the route for several Across Lexington routes. More information on these trails can be found at the Cary Library main desk. Look for a special article in the Lexington Minuteman detailing the attempt of a library employee to try bike commuting for the first time.



Bluets



New England Blazing Star returns to Lexington

By Jordan McCarron

New England Blazing Star, a state-listed "species of special concern" under the Massachusetts Endangered Species Act, was once widespread throughout Metro West

Boston. Adapted to fire-prone grasslands and heathlands, the sandplain wildflower provided important native forage for pollinators and a dazzling purple display in late summer. New England Wildflower Society records show the wildflower occurring throughout the towns of Metro West.

This summer, the Lexington Conservation Division and Grassroots Wildlife Conservation (GWC)—a Concord-based non-profit organization dedicated to rare species conservation—will be working together to bring the New England Blazing Star back to Lexington. GWC has plans to re-establish the wildflower at the summit area of Whipple Hill and throughout Joyce Miller’s Meadow.



Blazing Star

“Over the past few decades, the development of suitable sandplain habitat, fire suppression and resulting encroachment of woody vegetation, introduced invasive plant species, destructive mowing regimes, overuse of herbicides, and increased deer grazing pressure have resulted in a large decrease in both the abundance and distribution of the New England Blazing Star,” says Bryan Windmiller, Executive Director of GWC.

At Whipple Hill, GWC has teamed up with the Lexington Girl Scouts to re-establish New England Blazing Star as well as a variety of other declining sandplain forb species. At Joyce Miller’s Meadow, GWC will re-introduce the species as part of a larger meadow habitat restoration project coordinated by the Conservation Division to begin this coming summer.

The suite of sandplain wildflower species proposed for this restoration work includes wild lupine, yellow wild indigo, wild bergamot, and butterfly milkweed. Along with New England Blazing Star, these species require low-nutrient sandy soils and open and dry conditions to thrive; both the summit area of Whipple Hill and Joyce Miller’s Meadow provide this type of habitat.

Once the wildflowers are established, they will require periodic disturbance to prevent encroachment of invasive species and other woody vegetation. Both sites, classified as sandplain grassland or shrubland by the Natural Heritage and Endangered Species Program, evolved through a regime of periodic fire and boast abundant populations of little blue stem grass, scrub oak, bayberry and lowbush blueberry; the Conservation Division is currently researching the practicality and potential for using prescribed fire to manage both sites.

In the meantime, the Lexington Conservation Stewards and Conservation Division staff will manage the wildflower populations at the summit of Whipple Hill through annual monitoring to remove any encroaching vegetation by hand. At Joyce Miller's Meadow, where the Conservation Division plans to clear the meadow of invasive woody growth and restore grassland habitat this summer, the meadow will be mowed on an annual basis.

At both sites, GWC plans to experiment with various germination, site preparation, and planting methods as a means to increase the likelihood of future successful reintroduction and management methods for these species. "Our proposal for the small-scale reintroduction of New England Blazing Star in Lexington is part of what we hope will be continued efforts at other eastern Massachusetts sites to establish new occurrences of the plant and other declining sandplain grassland wildflower species in years to come," Windmiller says.



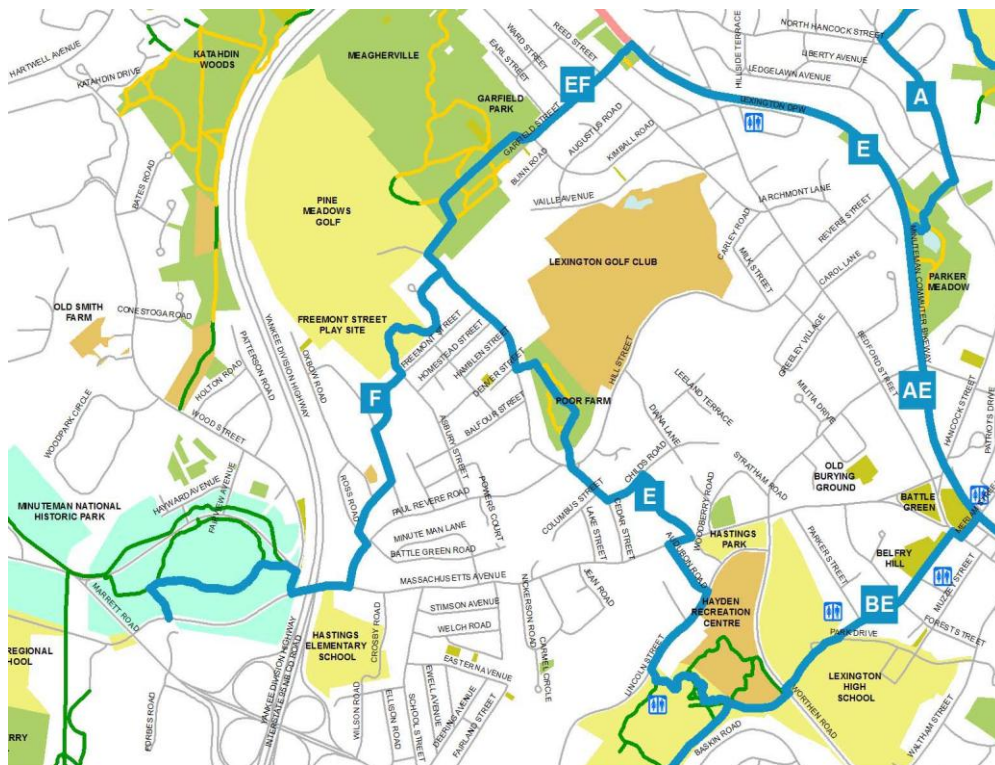
ACROSS Lexington Inaugurates New Routes

By Keith Ohmart

ACROSS Lexington: The Rick Abrams Memorial Trail Network, a project of the Greenways Corridor Committee, saw the completion of one new route and part of a second late last fall in its ongoing efforts to expand the trail network throughout the Lexington community. Route E, a 4.3 mile loop that incorporates portions of existing routes A and B, extends along the Minuteman Bikeway from Meriam Street past Parker Meadow before turning south through Poplar Park and then via Garfield Street enters the Meagherville Conservation property. Exiting the Meagherville property opposite the Pine Meadows Golf Club, the route then continues along Cedar Street before entering and traversing the length of the Poor Farm before exiting at the intersection of Cedar and Hill Streets. The route then continues via Cedar Street, Childs and Hastings Roads, crosses Massachusetts Avenue and then down Audubon Road to Lincoln Street before arriving at the entrance to Lincoln Park. The route then follows a meandering series of paths through the attractively landscaped portion of Lincoln Park before joining ACROSS route B, which takes you back to the starting point at Meriam Street in the Center.

Well over half of the route, including the portion along the Minuteman Bikeway, is off road. For those choosing bicycling as their mode of transport and wishing to make a longer day of it, the outer reaches of ACROSS routes A, B and E can be traversed in a continuous loop totaling over 12 miles in length and touching parts of 11 different Conservation and Town open space properties.

Route F is a work in progress, a portion of which has been completed, with further route development planned. The portion that is completed begins where Route E departs from the Minuteman Bikeway, runs concurrent with Route E through Meagherville and then departs from Route E at the intersection of Cedar and Martingale Street. It follows



ACROSS LEXINGTON, Routes E and F

Martingale Street over to a short diversion through a previously inaccessible wooded property known as the Fremont Street Play Area before continuing on via town streets to Massachusetts Avenue. It then crosses Route 128 along Massachusetts Avenue before turning onto Wood Street where the route presently ends at the Minuteman Historical Park. Future development of this route is intended to follow the Fiske Hill trail loop through the Park over to the Aloft and Element Hotels, across Marrett Road and then via the One Cranberry Hill office park drive to reach the Cranberry Hill Conservation property and points beyond.

Route F from the Minuteman Bikeway over to the entrance to the Minuteman National Historical Park provides the most direct access for bicyclists to reach the Park from the Bikeway. A unique feature of this route is a diversion for bicyclists at the Martingale Street entrance to the Freeman Street Play Area. Bicyclists are prohibited from crossing the property at the Martingale Street entrance to the Freeman Street Play and instead should continue along Martingale and then Freeman Streets to where the pedestrian portion of Route through the Freeman Street Play Area emerges onto Freeman Street opposite Bellflower Street. Pedestrian and bicycle routes are clearly marked with appropriate logos. The completion of these two routes adds over 4 new route miles to the ACROSS Lexington system, bringing the system route mile total to just over 20 miles at this point. Work will continue this spring on extending Route F to the Aloft and Element hotels and establishing a new Route G that will link Route A in the Lower Vine Brook Conservation property with the Shaker Glen Conservation property off of Lowell Street.





Willard's Woods Stream Daylighting Project

By Alex Dohan

Lexington has many streams. We have Simonds Brook, Kiln Brook, Mill Brook, and Hobbs Brook which you may or may not have heard of. And there's Vine Brook, which everyone should be familiar with, from the street name if not the stream itself, and which runs right through the Center of Lexington, underneath Massachusetts Avenue between Waltham Street and Woburn Street. Another curious fact about streams in Lexington is



that none flow into Lexington from surrounding towns. All the water in Lexington originates here and is on its way out, crossing into Woburn or Burlington or Bedford or Waltham or Lincoln or Belmont or Arlington. (There is a small stream that runs into Lexington from Arlington at Whipple Hill, but it runs right back out again.) In addition, Lexington sits in three different watersheds, meaning that our water flows to three different rivers on its way to the Atlantic Ocean. The northern section of town is in the Shawsheen River watershed, and this is where most of our streams flow, but the southeastern part of town is in the Mystic River watershed and the remainder, the southwest portion of town, lies in the Charles River watershed. (Here below is a link to the Town watershed map:

http://www.lexingtonma.gov/sites/lexingtonma/files/uploads/lexington_watersheds_major1.pdf

Many of our streams are, like Vine Brook, culverted under roads and wrapped out of sight. This might be convenient for human transport around town, but is less healthy for the streams and the flora and fauna that call them home. In an effort to improve stream health in the Town of Lexington, the Engineering Division has taken on the task of “daylighting” streams whenever it is appropriate and feasible. Daylighting is the process of taking a stream that has been culverted - forced to run through a pipe - and opening it up to the sky again. It can be a big project and is almost never so simple as removing the pipe and letting the stream “go free” on its own. The stream bank gradients need to be recreated in order to prevent collapse and flooding, and the bottom of the stream bed may need to be re-laid.



Spillway from Pond to New Stream

The stream at Willard's Woods was culverted for many years where it leaves the old farm pond. When the culvert began to show signs of collapse by 2012, an opportunity presented itself for daylighting. The Town had contracted with Woodard & Curran, a consulting firm, for Stream Management Plans

for all three watersheds. One of the suggestions in their report was to remove the culvert, which was made of granite chunks, and create a natural, open stream bed where the stream runs between Willard's Pond and North Street.

The simplest fix would have been to simply remove the old granite culvert and drop in a new concrete pipe, but Town Engineers John Livsey and Dave Pavlik took on the task of restoring the stream to a natural state. In the long term, this will mean less work for the Department of Public Works because an open stream bed will not typically clog with debris, the way a pipe can, nor will it collapse. In the short term, however, it was a huge project involving dozens of people and several Town departments, and it is not quite finished yet, as final plantings will go in this spring along the newly created stream bank.

If you walked through the North Street segment of Willard's Woods in the summer of 2014 you might have barely noticed the stream that ran off the pond through a small spillway. If you walked through the same area in the late summer of 2015 you might have wondered what on earth was going on. It looked pretty messy for a while, but it was all part of the plan. And it was clearly a team effort. John and Dave said that “any contractor can cut down trees and lay a pipe” but they worked hard to find a contractor that could and would

work to the environmental as well as the engineering specifications of this project. This was done through strict experience requirements defined in the bid specifications. Sum Co Eco Contracting had the experience to make the project work well, and came in with the lowest bid.

A great deal of research went in to figuring out how to recreate the stream that had been long buried. Project staff spent hours researching the relatively unaltered lower reaches of the stream on the north side of North Street to determine which plants and what size rocks and pebbles should be used in the rebuilding. Whenever possible, materials already on the site were redistributed, rather than bringing in foreign materials. There is a lovely riffle just below the new footbridge that was created from a large rock unearthed during the construction. This tiny waterfall serves to adjust the grade of the stream and slow the water flow, as well as create a visually attractive element at the site.

During the construction a temporary stream bed was created so the water could keep flowing while the work was ongoing. This was to minimize erosion and sediment movement while the new stream bed was built. Today you can still clearly see the erosion control blankets that are on the new stream banks, also to prevent erosion and sedimentation while the area regrows and becomes accustomed to its new shape.



Riffle as Seen from Bridge

These artificial elements will disappear over time. At the bottom of the stream you will notice many rocks of all sizes, typical of a natural stream around this area. These rocks were carefully chosen, not one by one, but batch by batch, for size and shape to make sure that the new stream is as natural and stable as possible from the outset, and will not take hundreds or thousands of years to look and act complete.

So the stream daylighting project at Willard's Woods is a triumph of conservation, restoration, and engineering. We can be proud to live in a Town that takes the time, effort, and money to improve the environment in such an aesthetically pleasing way, and also a Town that cares, through the work of many employees, to improve our natural resources and recreation areas.



Lexington Alive

Spring is a good time to get outdoors and look at all the living things around us, especially when accompanied by children. For \$6 you can purchase a durable Pocket Naturalist Guide with 78 beautiful colored pictures of species found in this area. It is available at the

Conservation Office, located on the ground floor of the Town Office Building, It can also be found at the Visitor Center.

Photo Credits

Kate Fricker, page 1, 9, 16

Charlie Ronchetti, page 7

Susan Kenyon, page 8

john@easywildflowers.com, page 10

Alex Dohan, page 13, 14, 15

Answer to Photo Quiz

A Red Pine Tree



Do you have ideas about conservation issues in Lexington?

CLC welcomes submissions for our newsletter. If you would like to submit an article, or an idea for an article, please be in touch with our Newsletter Editor, Kate Fricker, kfricker1010@gmail.com, for guidelines. If there is a topic you would like to see covered in our newsletter, please submit your suggestions to our website, clclex.org, or send them to our Newsletter Editor.