The Town of Middleton, once part of Salem, was incorporated in 1728. Middleton covers approximately 14.50 square miles. The town and other organizations have successfully managed to save approximately 700 acres of open space and conservation land for the protection of natural resources and for the enjoyment by individuals through hiking, canoeing, bicycling, photography, and education.

The "Hiking for Health & History in Middleton" is the first version produced in print for individuals as part of the *"Middleton in Motion: Moving towards better health in the community"* campaign to promote physical activity within Middleton.

With these pages you will find:

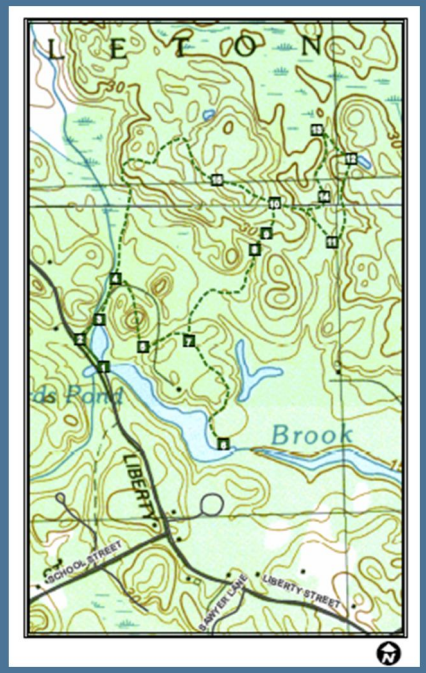
- **Trail maps with guided walks and paddles**
- **Descriptions of natural resources you may observe**
- **Pictures of natural landforms and human history places of interest that can be seen along your hikes or paddles**
- **Public Health information for increased awareness**

This Booklet was made from a partnership between the Middleton Health and Conservation Departments and partially funded by a grant from the Essex National Heritage Commission
Printed on Recycled Paper
Version 2012-1

Essex National Heritage Area

Town of Middleton
Health and Conservation Departments
195 North Main Street
Middleton, MA 01949
www.townofmiddleton.org

Hiking for Health & History in Middleton



This booklet contains a compilation of hiking trails and canoe trips that travel through beautiful areas within Middleton. As you guide your way through this booklet and trails, you will find rich points of history about the land, the environment, and our natural resource areas.

Additionally, you will find public health information that can increase your awareness on topics such as Lyme disease, the benefits of physical activity, West Nile Virus, diabetes, obesity, flu and more.

When we see land as a community to which we belong, we may begin to use it with love and respect.
-Aldo Leopold-

INTRODUCTION

This booklet is about many long used hiking trails and a few new ones in Middleton. The Middleton Council on Aging and Conservation Commission Friday morning walking group has been hiking and enjoying most since 2004. A couple trails are on parcels recently acquired by the town as open space/conservation land. In 2008 the Middleton Health and Conservation Departments won a $2500 grant from the Essex National Heritage Commission to partially pay for this guide, trail markers, and entry signs. The remainder came from the Health Director's and the Conservation Agent's in kind services. The purpose is to encourage hiking for exercise and education. The descriptions that accompany the trail maps touch on natural and cultural history.

We are very lucky in Middleton and abutting towns to have large areas that haven't yet been developed; much is protected and available for public use. In nearby Peabody, just to the south across the Ipswich River, is a new trails-to-rails path along the river. The Friday morning walking group had been walking the old rail bed for years on ties along muddy paths. Now the onetime Salem to Lowell Rail Way is paved for walkers and non-motorized vehicles. In abutting North Reading and North Andover there are the many trails of Harold Parker State Forest. Its territory along with that of Boxford State Forest and Boxford Trails Association/Boxford Land Trust (BTA/BOLT) spills over into or borders Middleton. Some of their trails are continuous with ours. To the northeast Topsfield has followed the example of Peabody and is as of this writing is building a rails-to-trails path on the old Boston and Maine line coming down from Georgetown and continuing on into Danvers. We hope to see our five-miles of once Essex Rail Way passing through town become a path welcoming walkers and bicyclists someday. Not far to the east across the Ipswich River in Danvers is the Danvers Town Forest with several fine trails. The main trail head can be accessed from Route 114. These lands, added to here and there by Essex County Greenbelt, the state, BTA/BOLT, and town open space and conservation lands, are available to us all for so-called passive recreation, i.e. no motors. Several of the Middleton trails in this booklet connect with some of on those mentioned above in surrounding towns. Our goals are fitness and learning, which know no arbitrary town bounds.

Most of our trails, many rough, once the cart paths of farmers, are now used by wildlife, hikers, hunters, and in some cases ATV's. Some cross from open space/conservation land onto un-posted private property. In addition to some stretches of the mapped trails being private not all are cleared or marked. YOU GO FORTH ON THEM AT YOUR OWN RISK AND RESPONSIBILITY. We hope that someday they will be maintained and marked by a volunteer group perhaps modeled after BTA/BOLT. Until they are you must do as the Friday morning walkers do and depend on signs of use, sun or compass, and the map descriptions in this booklet. Several of the trails mapped and described are rough, steep in places, with portions wet at times. These are not for those requiring well cleared and gently graded paths such as those in parks. Please see our remarks preceding each trail description on the nature of it. If you'd like to volunteer to help maintain our trails please let us know.

We'd like to thank a few people and organizations who have helped us in this project and who allowed us to include portions of these trails in our booklet. They are Traci Mello (Middleton's Public Health Nurse), Karen Matsubara, Joan and Peter Cudhea, Ann Cote, Richardson Farms, Essex County Greenbelt Association, Massachusetts Department of Conservation and Recreation (Harold Parker- Boxford State Forests), New England Forestry Foundation, Denise Castronovo (Mapping Sustainability), and Masconomet Regional High School Art Class (Teacher: Stacy Mannheim & Logo Designer: Elizabeth Cohen), and Frances Masse. We hope to see you on one these trails soon.

Derek Fullerton and Pike Messenger
2009, Revised 2011

As you continue keep a sharp eye out to the west for Emerson Brook and Boston Brook, incoming major tributaries. They are not obvious even in the spring when the water is high. See map. Much of the high land to the east after Rachel's Rest was the Jewish Community Center land that extends almost all the way out to East Street. Camp Simchah, a children's day camp, operated there in past summers.

The next MST landing is at Peabody Street where there is a kiosk with river map and other information. The beautiful stones forming the inviting steps on the river's edge where given and placed by Middleton's Vito Mortalo. He did the stone steps to the river at Farnsworth Landing also. The fields to the east and west here were once corn, bean, and squash gardens of the Agawams. Numerous native artifacts have been found in them.

Just down past the Peabody Street Bridge on the left, on horse pasture above the hardwoods along the river, there was a large box factory 1872 to 1892. On Christmas Eve 1892 it burned leaving 42 men out of work.

The next bridge to pass under is Thunder Bridge, East Street. Be very careful as you approach when the water is high. **WARNING!** The strong current formed by the constricted water may you suck under where there is little room but down. If in doubt pull to the side and portage around this bridge.

On the down river side of Thunder Bridge is Middleton's public beach and swimming hole. The next take out beyond Thunder Bridge is the Rowley Road Bridge in Topsfield over an hour's paddle down river. Walcott Island is a place well worth a visit about a quarter mile down from Thunder Bridge on the south side where Nichols Brook joins the river. (see map) The land on the south side of the river for about 2000-ft. is protected conservation-open space land obtained by Middleton in 2006. Where the land to the south rises you'll find a low knoll dubbed Walcott Island. The beech and oak covered knolls here are surrounded by water during floods hence the "island" in its name. Stop and explore among the large oaks and beeches. Note where Nichols Brook, all the way from Danvers to the southeast, converges. See map.

Continue on for a hundred more yards and you will pass under Route I-95 bridge built in the 1950's. It reduced the width of the floodplain from about 400 to 70-ft. no doubt producing considerable flooding effects up river. Check out the graffiti art on its abutments. The artists probably came from nearby Masconomet Regional School named after the Agawam's sachem Masconomo. In the early 1630's, he, probably having no idea what was he was doing, put his mark on a deed turning over much of the lower Ipswich River basin and rights to its use to Englishman John Winthrop, Jr., for 20-pounds. We hope this information doesn't spoil your trip.

As you continue, the woods to your east is Danvers' conservation/open space land. On your left, largely out sight, is a business/industrial area along Birch Road. After almost reversing your course in a great meander you will be approaching Danvers Fish and Game land to the west. You may hear gunshots from its firing range. Soon, on the right, you'll pass the fields, mostly just out of sight, of the Massachusetts' Departments of Mental Health and Food and Agriculture once those of Danvers State Hospital. Richardson Farms now plants and harvests silage corn, alfalfa, and grasses on much of it. On rounding another meander to the west are the fields below Richardson's cow barns and ice cream business. Look closely at the river's edge to your left and you may see Middleton Brook bringing in water from Middleton Pond and Swan Pond in North Reading. Look northwest at the quarry where granite ledge is being mined by a tenant contractor.

There was said to be an Indian ford crossing the river just down river from the Middleton Brook convergence. The Indians, Agawams, here were not known to have had bridges. Wild rice plants have been found growing from the water along this stretch of the river (WP 17). The number of plants is increasing each year.

The next bridge is that of Maple Street, Route 62. Just before it note the huge granite abutments of the Essex Rail Way Bridge that carried several trains a day, Salem to Lawrence and back, from 1848 to 1926. After passing under the bridge you may want stop for a spell at the MST's Maple Street Landing on your left. There are stores nearby if you need provisions. In 2010 it was named Mortalo landing after Vito Mortalo who built stone access stairways at three landings. Stop and check the kiosk for information.

About a quarter mile further down river you'll arrive at King's Pool, a sharp curve right, where generations of Middleton kids used to swim. There is a horse pasture on the left and a venerable old willow where the river turns east. Ray Farnsworth, stalwart of the Ipswich River Watershed Association, used to host clam bakes here after group canoe trips for fellow fans of the river.

Soon after Kings Pool you'll see a large mansion to the west overlooking the river. For a year around 2005 this was the home of Red Sox's center fielder Coco Crisp and family. The house was built under the rules of the Rivers Protection Act, which severely restricts planned projects within 200-ft. of the river. Houses you see built very close to the river's edge were built before the act was promulgated in 1996.

As you proceed keep an eye out for a clearing on the rivers west side where there was once a tiny house. Civic-minded Middletonites in the 1970's cleared a small area on 12-acres of conservation-open space land, as a rest stop for paddlers. The project, never completed, was resumed by the MST in 2004. Stop and find the old foundation and front steps and the lilacs once growing near the long gone outhouse. You may camp quietly overnight here if you wish. Please leave nothing behind. The Stream Team has named this stop Rachel's Rest after the famous zoologist-nature writer, Rachel Carson, who wrote Silent Spring in the early 1960's. Many of the environmental protections all creatures enjoy today can be traced to this gutsy women. Silent Spring's warnings of the dangers of manmade chemicals resulted in a firestorm of vested interest criticism against her along with a robust environmental movement.

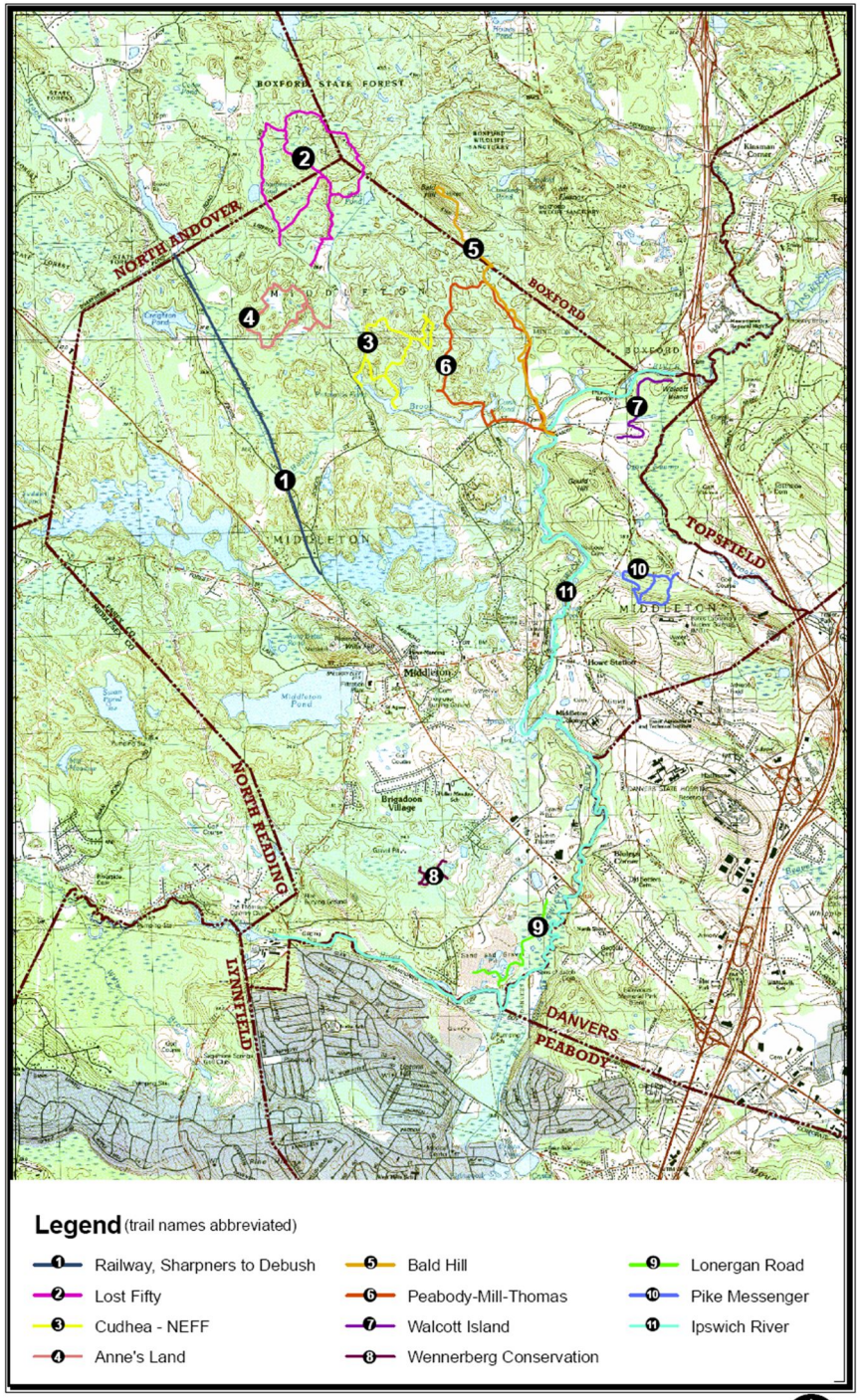


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This trail booklet and all maps are available for viewing and downloading on the Town of Middleton's website within the Health Department webpage under the link, "*Middleton in Motion*"

http://www.townofmiddleton.org

Like us on Facebook at 'Middleton in Motion"

Like us on Facebook

Trees, despite the absence of topsoil, have grown up quickly since. Look for signs of the old gravel pits on your left. By the way, since departing Boston Street you've been paddling the mid-river line between Middleton and Peabody. Soon you'll come to a fork in the river, turn left, north, in the natural channel. The south branch here is a manmade canal leading to a pumping station in Peabody. During the cold months when the river is high, water is pumped from there to provide Peabody and Lynn.

You are entering beaver territory as you proceed on north. The dead trees you encounter on either side are the result of beavers raising the water levels from the beginning of this millennium. The noble swamp white oaks, ashes, large willows, and red maples you find dead or in various stages of distress are all water-loving trees that can only take so much. The beavers have raised the water a little with the dams you will soon pass over. The higher water year round is killing many bushes and trees. A whole new sun-flooded wetland of shorter herbaceous aquatic plants is forming. Previously the floodplain here was a forest-shrub swamp. Keep your eyes, and ears, out for beavers and their lodges and dams.

Don't be anxious in the summer if the river seems to be closing in on you. Just stay with the narrow channel as it meanders in great loops back and forth. The large old prostrate trees you pass now and then are dying willows. The dense stands of grass rising up out of the surrounding water are of reed-canary grass an invasive species that seems to be competing well with purple loosestrife another invasive along the river. You'll pass plenty of both. You are now in rich bird, muskrat, beaver, otter, mink, and deer habitat. Keep a sharp eye out. Stop talking, paddle gently.

When you get to Farnsworth Landing, on your left just before the Route 114 Bridge, stop awhile to rest and check out the river map in the MST kiosk. The park here is named after the late Raymond Farnsworth champion of the river and longtime Middleton Conservation Commission chairman. Visit his stone with bronze plaque a few feet away and say hello. The Middleton Stream Team (MST) made this park on an abandoned commercial stone yard lot.

Proceed under South Main Street, Route 114, with care. The current is sometimes strong and there is a steel beam hanging down from above waiting to snag you. Two old timers were flipped over in 2003 by it into cold Patriots Day water. Note the record May 15, 2006 flood level marker on the Route 114 bridge abutment to the east. The flood stopped traffic on this major route for several days.

You are now on the Danvers-Middleton line and have been for sometime. After a couple more meanders you'll come to the Logbridge Road Landing made with much volunteer help by aspiring Eagle Scout Xavier Chambers whose project was sponsored by the MST. Check out the map on his kiosk. Read the basics of the bridge's 300-year history on the stone mounted bronze plaque. The bridge is gone, only the great stones of its abutments are left. Close your eyes and listen, you may hear steel tired ox and horse carts crossing a wooden bridge.

IPSWICH RIVER FROM NORTH READING TO TOPSFIELD

(Nature of route: on water in canoe or kayak, only a couple hundred feet of mild white water at start, almost all the rest with slow flow, some meandering parts with encroaching vegetation from mid-summer on, leisurely four to six hours depending on the rate of flow, several beavers dams to slide over when water low)

The Ipswich River in Middleton flows generally southwest to northeast for about nine miles. It can be paddled in several sections: Pine Road across from Bostik to Farnsworth Landing, a leisurely 2 hours; Farnsworth to Logbridge Road Landing, less than ½ hour; Logbridge to Maple Street Landing about 1 hour; Maple Street to Peabody Street Landing a leisurely 1 ½ hours; Peabody Street to Thunder Bridge, East Street, less than ½ hour; and Thunder Bridge to Rowley Bridge Road in Topsfield a leisurely 1 ½ hours. (There are places to put in and take out at each of these sites.) These times depend on depth, fallen trees, beaver dams, and rates of flow. See river maps in Middleton Stream Team (MST) kiosks at Farnsworth, Logbridge, Maple St., Thunderbridge, and Peabody landings. You must carry a life jacket for each person and wear them September 15 to May 15. Persons 12 or under must wear one whenever underway. When the water and air are cold we recommend you carry spare sets of clothing in waterproof containers.

The following are a few of the things you might look out for as you proceed down river going with the flow from Pine Road (WP 4) near North Reading, across from Bostik, to Route I-95 bordering Topsfield. The launch off Pine Road takes you right into mild white water; but before you put in walk up river on Pine Road to the historic Paper Mill-Boston Blacking Chemical- Bostik dam (WP 3). From its north abutment you can view the old and new mill buildings and the millpond stretching back up into North Reading. The sluiceways of this dam powered a well-known paper mill in earlier times.

Soon after departure, just down river about 800-ft., look for a small building on the south bank with a vertical measuring stick below it going into the river. This is the South Middleton USGS gauge that every couple of hours or so monitors the rivers depth and sends data to satellite then USGS computer. If you want to watch the river's fluctuations, depths and rates of flows there, visit: http://waterdata.usgs.gov/ma/nwis/uv/?Site_no=01101500& PARAmeter_cd=00065,00060 Just above the gauge you'll see the abandoned RR bed, now a paved public path for walkers and non-motorized vehicles.

Shortly you'll cross under the high-tension New England Power Company lines and over the Maritimes Northeast pipeline, 30-in. diameter pipe 600-miles down from Sable Island in the ocean off Nova Scotia. Don't dig down looking for it. The natural gas, which proceeds under Boston Harbor, is under 80-atmospheres pressure! Soon you'll pass a house right close to the river at the end of Hilldale Avenue (WP 8) that was built before the Massachusetts River Protection Act was promulgated in 1996. This Act restricts activity within 200-ft. of rivers and perennial streams.

You are now approaching, on your left to the north, the Middleton Transfer Station, formerly, and still to many, "The Dump". Much of the upland, largely good gravel, on the north side of the river all the way out to Route 114 was hauled off to Logan Airport for its runways in the 1940's, '50's and '60s.



This logo is on aluminum trail markers posted periodically along the trails in this booklet.

Logo design was created by Eliza Cohen as an art project in her graphic design course at Masconomet Regional High School in association with the development of this trail booklet project. Under direction of her teacher, Stacy Mannheim, Eliza and her fellow students developed many versions of trail logos. All the logos submitted were very good and each student explained the design thoughts and logic behind their artwork. It was a tough decision to choose one in particular, but it was decided that Eliza's logo represented the trail project of "Hiking for Health and History" in Middleton best. Many citizens and town officials helped us judge.

We want to thank the Masconomet art students and teacher, Stacy Mannheim, for their assistance in creating an image for hikers to help guide them in their travels.

During your hikes you may not see markers along the entire route as you may have entered another jurisdiction of land ownership, such as, Essex County Greenbelt Land, Boxford Land Trust, or others where signage may already exist. It's good that our lifestyles and symbols intermix even along the trail!

WAY POINTS
RAILWAY, SHARPNERS TO DEBUSH* (or vice versa)
(Approx Length=2.3 Miles / Relatively Flat)

1 Start: Sharpners Pond Road
RR bed is just east of Essex Street

2 Stone abutments of RR bridge where channel of Boston Brook crosses east to west

3 Richardson Farm stone/barbed wire barricade, which is easily crossed, pasture south for a mile or so

4 Road crossing to Richardson Farm pasture fields in woods south of Watkins and Silas Meriam Ways

5 Stone abutments of RR bridge where east and west floodplains of Boston Brook are connected,water flows east to west. South of here look for a choked brook coming in from Creighton Pond.

6 Road crossing from Richardson Farm fields on Essex Street, there is an interesting woodland trial to east that will take you to North Liberty Street

7 Pass from shade of white pines into wetlands and flood plain

8 Farmers ancient road crossing, beaver dam 2007

9 Farmers ancient road crossing, cause way to east leads to gravel pit probably used for RR fill in 1846-1848

10 Stone abutments of RR bridge (crude wooden bridge now) where Boston Brook channel flows back from west to east across RR bed

(RR bed becomes Essex Street about 1/10 mile south of waypoint 10. Old Essex Street loops to east about 1/10 mile and rejoins Essex Street and buried RR bed which leaves Essex Street and continues south between blasted ledge to Debush Ave.)

11 Debush Avenue, dance studio is on corner of it and RR

12 Essex Street, Emerson Brook, and RR intersect

*We often start hiking this trail in reverse at waypoint 11.



WAYPOINTS - IPSWICH RIVER

(Length of river "trail" = 9.3 miles)

Start Bostik, Pine Road side



3 Bostik Dam, north side

4 Start below dam

5 Just down past Boston Street bridge

6 South Middleton Gauge

7 Electric power lines and gas pipeline

8 Hilldale Avenue end

9 Canal to Peabody pumping station to south, where turn North

10 Danvers water supply pump house to east

11 Beaver lodge and dam

12 Farnsworth Landing, Route 114

13 Logbridge landing

14 Large beaver dam, Danvers Fish and Game to west

15 Richardson's corn field to east below Colony

16 Middleton Brook enters from west



Beaver Lodge

17 Wild rice patches

18 Vito Mortalo landing at Maple Street

19 Kings Pool east of Kenney Road

20 Coco Crisp's (former Red Sox athlete) mansion for year or so on river to west)

21 Rachel's Rest off Mill Street, MST/CC area on river

22 Emerson Brook enters from west

23 Boston Brook enters from west

24 Peabody Street landing and bridge

25 Thunder Bridge

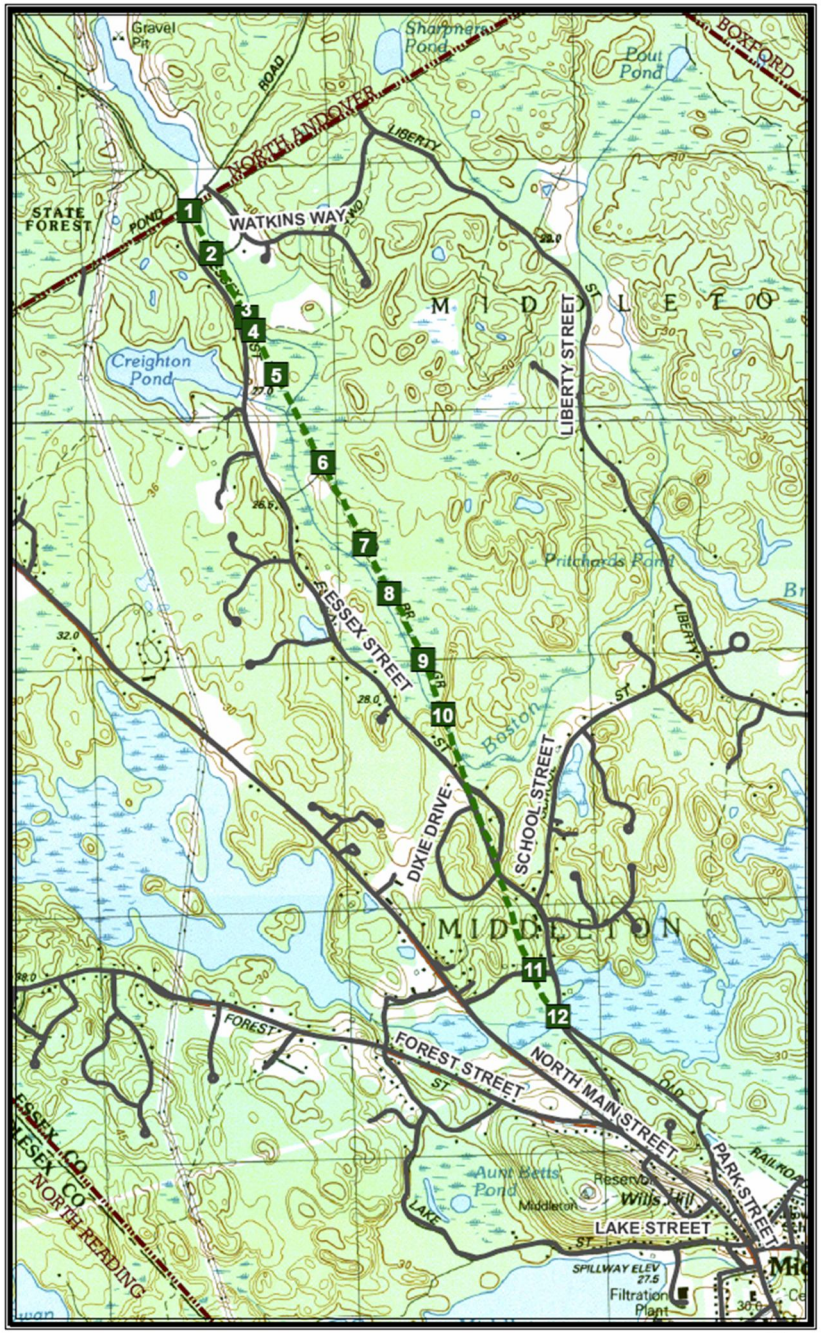
26 Walcott Island land start, south side

27 Walcott Island, Nichols Brook enters from south



Crest Mark
(Green Arrowhead)
of Water during
Mother's Day Flood
2006

Route I-95 about 300 feet further down river



ESSEX RAIL WAY:
SHARPNERS POND ROAD TO EMERSON BROOK

(Approx Length = 2.3 miles, relatively flat)

This section of the Essex Rail Way (RR), active from 1848 to 1926, is all down or up hill but you won't notice. Railroad engineers were always looking for no or low grades. Here they built along Boston Brook in its floodplain. There was no Wetland Protection Act then so they built for long stretches right through wetlands, As you proceed imagine the passing countryside, largely without trees, as seen from several trains daily back and forth between Lawrence and Salem. This is one of the easiest trails in our booklet and while closely paralleling Essex Street for the first couple of miles passes through rich wildlife habitat. This stretch of the RR is owned by New England Power Company.

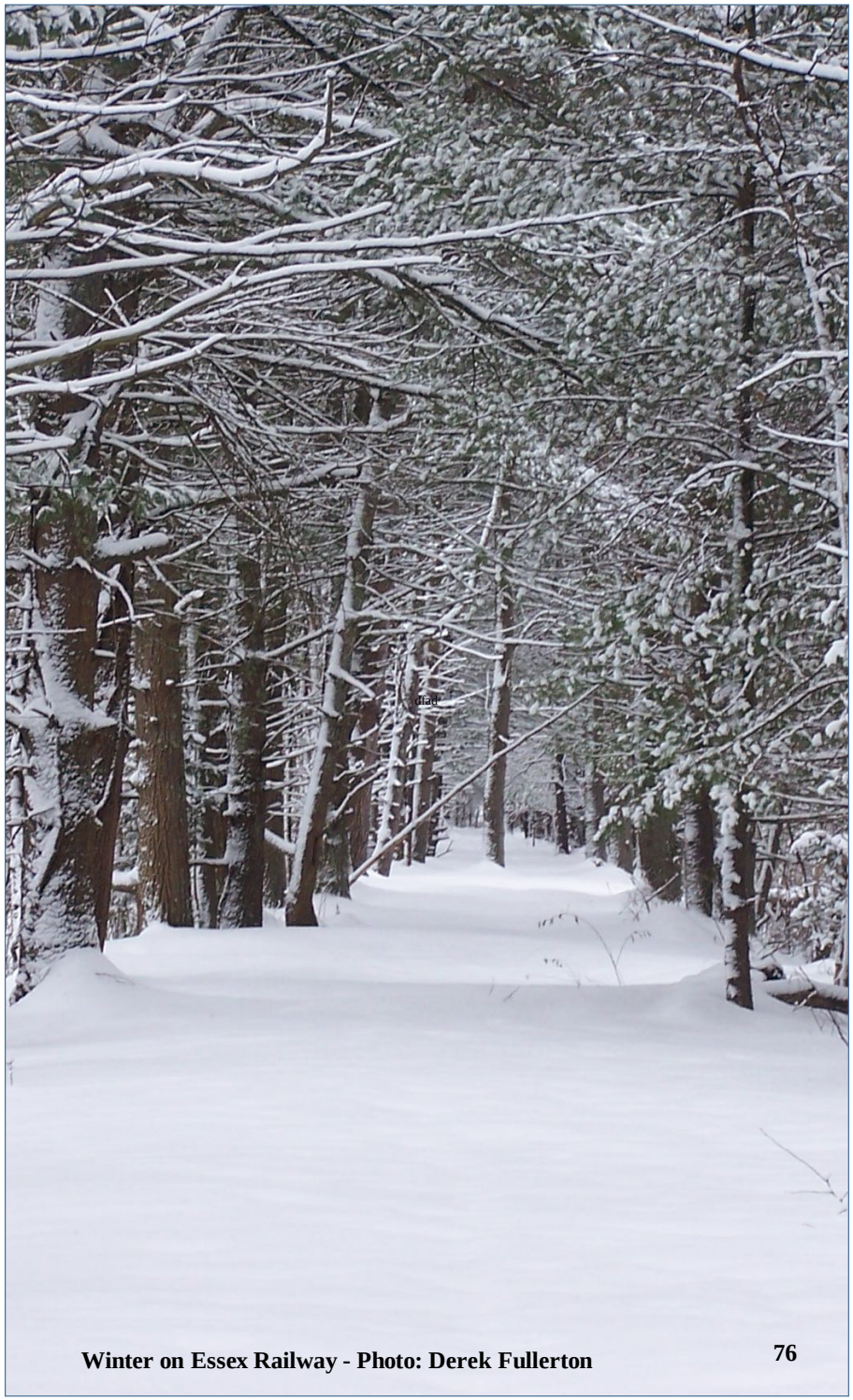
The following narrative mentions a few features to look out for. You may also park at DeBush and walk north. We often start there and walk to Sharpners Pond Road and then return.

Park on the shoulder of the Sharpners Pond Road, "Nike Site Road", North Andover, so dubbed by locals during the reign of President Lyndon Johnson when it was built by the Defense Department. This road was built from Route 114 to a planned missile base. The road was finished; the base never started. Two generations of kids learned to drive on this wide road going nowhere. Leave your car just east of the end of Essex Street between it and Boston Brook, and then look for a path going south on the old railway bed close to Essex Street. If you want to go north just cross Sharpners Pond Road and follow the RR bed parallel to Salem Street for about a mile and a half into North Andover.

The land between Essex Street and the RR bed for 1700 feet down to Richardson's pasture is Middleton Conservation/Open Space land. A few hundred yards from the start you'll come to stone abutments where there was a RR bridge crossing between Boston Brook and wetland. A crude log bridge for people has replaced it. Be careful.

Very soon you'll come to a cattle barrier of stones and barbed wire, which is easily climbed over. Note the absence of low vegetation for the next mile or so where Richardson Farm's young stock and non-milkers graze spring to fall. Cows eat young trees and bushes including poison ivy. Keep a sharp eye out as you proceed for signs of low ramps from inundated causeways perpendicular to the RR used by farmers on Essex Street to pass over the tracks to their wet meadows. You'll find a couple still in use by Richardson Farms employees and cows to access back pastures.

Further down, the trail is shaded for some distance by mature White Pines. Just beyond this grove, if you look west, you may see a weed filled wetland-brook coming in from Creightons Pond, on Essex Street (south of WP 5). Note the soil surface all along the RR. The rough porous stones are "clinkers" impurities in coal that wouldn't burn. You also find occasional pieces of coal that dribbled from the coal car. Explain to youngsters what coal is. The steel rails on the Middleton section of the RR line have long been removed. You may find signs here and there of cross ties and the spikes that attached the rails to them. While daydreaming on this walk we've heard train whistles.



Winter on Essex Railway - Photo: Derek Fullerton

DIABETES

Diabetes is a condition that results when the body does not utilize insulin properly, resulting in the levels of blood sugar getting to high. Both genetic and environmental factors such as obesity and lack of exercise play a role in controlling diabetes.

Insulin is a hormone made by beta cells inside the pancreas. With each meal, beta cells release insulin to help the body use or store the blood glucose it gets from food.

Type I diabetes is when the pancreas does not make insulin. The beta cells have been destroyed and therefore the need of insulin injections. The person must also monitor their blood sugar levels in order to administer the correct dose of insulin. The person must also have a controlled diet plan. Each carbohydrate needs to be accounted for in order to maintain a healthy blood sugar level.

Type II diabetes is non-insulin dependent. The body continues to make the insulin; it just is unable to release it. Oral medicine helps release the insulin into the blood. People who have this form of diabetes may be able to control their blood glucose by losing weight, following a controlled diet plan and exercise. This type of diabetes usually happens to people over the age of 40 and who are over weight.

The potential complications for diabetes are cardiac and circulation problems, loss of vision, poor healing secondary to poor circulation, problems with your feet secondary to poor circulation and liver damage.

You can help control your diabetes by eating well. A registered dietician whose specialty is diabetes will help you put together a food plan right for you. It is important to eat whole grains and legumes, as well as non-starchy fruits and vegetables. Choose water over any other drink. Try to eat fish 2-3 times a week and eat lean cuts of meat. One portion of meat is equivalent to a deck of cards.

It is recommended to exercise at the same time everyday for the same duration. A person should exercise at least three times a week for about 30 -45 minutes. Be sure to consult your doctor before starting an exercise program.

Walking is a great exercise. When you plan to take a walk, be sure your shoe or sneakers fit well. Remember to always wear socks. Wear a medical alert bracelet indicating that you have diabetes. In case there is a problem when you are exercising this will insure you get proper medical help.

With the proper diet, exercise, and medicine, a person can control their diabetes.

Now, on both sides are wetlands, floodplains of Boston Brook, which is Middleton's largest tributary to the Ipswich River. Its headwaters are the heights of Boston Hill in North Andover. Some old Middleton deeds and maps call it " Beechy Brook". During floods the water flows powerfully down both sides of the RR bed. The wetlands here were dominated by red maple until the beavers started damming in the late 1990's. See how many of their dams you can find en route. Note the standing tree corpses. Red maples, also called swamp maples like water, but can't take it year round. Keep an eye out for beaver lodges. In winter snows you may see otter tracks and slides. This stretch down to Old Essex Street is a favorite playground of otters.

See WP 9. This marks a short causeway from Essex Street to what once was a large gravel pit a couple hundred feet east of the RR. We think that fill for the RR came from it. You can safely cross at times of low flow on the beaver dam here. Walk east over it and the causeway and find the large pit now hidden by mature trees. BE CAREFUL.

Look to the east and west south of the causeway and notice how the floodplain is narrowing. The oak covered highland to the southeast closes in to produce a valley between it and the RR bed. Here the upland on either side gets close enough to allow for a road crossing under the Wetland Protection Act. On the highland to the east just across the brook an eight-house subdivision was approved in 2008. If built you'll be able to see large houses across the brook after the oak leaves fall. Almost eight square miles of watershed pour through the 100-foot wide constriction here.

Soon you'll once again encounter stone abutments of a RR bridge replaced now by a questionable wooden one. Proceed carefully over in single file. In a few minutes you'll come to Essex Street. Bear southeast and continue on Old Essex Street. In the 1960's a straightened section of Essex Street was build on the old RR bed. The more scenic route for now is Old Essex. You are leaving the map trail for a bit.

Old Essex joins "New Essex" again shortly. Cross Essex diagonally and pick up the RR and proceed down through walls of ledge blasted by black powder. Alfred Nobel hadn't yet invented dynamite when this line was built. See if you can find drill holes in the exposed ledge. Imagine swarms of men, horses, oxen, and early steam engines in this canyon hauling out rocky fill for lower wet parts of the line.

If you want to continue cross over Debush Avenue (WP 11) and proceed on south, note the gradual turn southeastward. If you are still raring to go, cross Essex Street at Emerson Brook (WP 12) and continue southeast to Middleton's center. Another 2 ½ miles will take you to Danvers.

We often do the Sharpners Pond Road to Old Essex Street or Debush Avenue (WP 1 to 12) in reverse of the route described here. It is a nice three miles round trip up and back in different seasons with varied wildlife.

PUBLIC HEALTH MISSION STATEMENT

The Middleton Board of Health's mission is to improve public health through promoting an individual's well-being, preventing disease, and protection of an individual's health within the community.

The Middleton Board of Health and Health Department work to support the 10 essential functions of public health as outlined:

1) Monitor health status to identify community health problems.
2) Diagnose and investigate health problems and health hazards in the community.
3) Inform, educate, and empower people about health issues.
4) Mobilize community partnerships to identify and solve health problems.
5) Develop policies and plans that support individual and community health efforts.
6) Enforce laws and regulations that protect health and ensure safety.
7) Link people to needed personal health services and assure the provision of health care when otherwise unavailable.
8) Assure a competent public health and personal healthcare workforce.
9) Evaluate effectiveness, accessibility, and quality of personal and population-based health services.
10) Research for new insights and innovative solutions to health problems.

Listed below are some of the routine tasks and oversight that the Middleton Health Department performs in protecting the public health of individuals in the community.

- Communicable disease surveillance
- Emergency preparedness and planning for items such as disease outbreaks, pandemic flu, natural disasters, etc.
- Oversight of wastewater disposal (septic) systems, installations, and designs
- Oversight of domestic drinking well systems and installations
- Authority for issuing permits and conducting inspections for recreational camps, semi and public pool facilities, tanning salons, water bottling plants, food establishments, ice cream manufacturers, piggeries , and motels and hotels and more.
- Conduct routine food inspections of food establishments.
- Administration of vaccine for influenza at annual clinics, pneumonia, etc.
- Rental housing inspections for sanitary code compliance.
- Nuisance and complaint follow up and investigation
- Develop regulations for the protection of public health
- Promote awareness through education on EEE, WNV, benefits of physical activity, Lyme disease, Obesity, Influenza and other diseases.

As of this writing the invaders are moving west across the north slope of Bare Hill. The name "bare" probably originates from when this huge hill, those south slope descends to Maple Street, was treeless pasture.

If you don't want to climb the hill, after the brook turn right and walk west on the path along its base. Water seeps out of this glacier deposited drumlin because of underlying layers of hardpan, which produce perched water tables. Even in droughty summers the north slope is rarely dry. The pits dug along the trails were once called borrows. Earth was borrowed from one place to fill others, here low places in the dirt road.

If you've chosen the upper trail follow it west to a point (WP 6) where it starts to descend parallel to Lebeau Drive. To the south of waypoints 4 to 6 on the upper trail are the Essex County Jail and MIT laboratories. At WP 7 continue your descent to the lower trial. When there look to the west for a huge red oak that may be well over a century old. This was probably spared by farmers to serve as a "pasture tree", a shade tree for livestock, in a field of grass. The other evidences that this was a pasture up until the middle of the 20th century are the dead and dying red cedars and the fact that most of the hardwood tree trunks are single having arising from a seed. There would be clumps of several trees coming up from hardwood stumps previously cut. The red cedars are one of the first trees to grow in abandoned pastures; however, in time the faster growing hardwoods shade them and they slowly die. The few dead or just barely surviving at Locust-East are 40 to 60 years old.

If you feel like a little wet bushwhacking leave the trail at the pasture oak and turn west along the brook above the pond you'll soon see. The handsome large trees with golden-frizzy bark are yellow birches, one of the best furniture woods. This is one of the finer stands we know of in town. Keep a sharp eye for wildlife on the pond. When you come to private lawn at the edge of the woods turn north and cross the brook between the two manmade ponds. The one surrounded by lawn on East Street is Webber's Pond, which yearly puts on quite a summer show of water lilies. Both ponds are very rich in wildlife, most unseen without close looks or magnification. Each lily leaf hosts tiny organisms; most on it's under surface.

Walk a few yards north on the edge of the lawn and then pick up the trail again and continue east in the woods. You'll soon find yourself on a terrace underlain with well drained gravely soil. It is here, the terrace mentioned earlier, where mature pitch pines dominate the canopy. At WP 9 you might descend a rough path south and back across the brook. Note the vegetation changes en route. After you've crossed the brook, look for a handsome clump of white birches on the edge of this path.

In the northeast corner of Locust-East is a high knoll on which white oak, one of the most valuable of our trees, dominates. Note the light colored bark that covers tough-hard, decay resistant, wood. This is the species that the shipbuilders of the 17th through the 19th centuries sought. The low bushes common under the hardwoods are huckleberry. Huckleberries are very tasty, but the birds usually get them before we do.

Another fine path is the lower one just to the north of the brook along a stonewall. It is not shown on our map.

If you are interested in mushrooms come back during a wet period. A dozen species can sometimes be found growing from the duff and dead logs along the wetter trails. As with all the trails in this booklet we urge you return at different seasons.

PIKE MESSENGER CONSERVATION PARK

(Nature of trails: wooded, some sections wet in season are easily avoided, some portions fairly steep and high, most with gentle grades, a short interesting stretch without open path, leisurely one hour)

These 35 acres, we now call Pike Messenger Conservation Park [formerly called Locust-East (between Locust and East Streets)], were purchased by Middleton from Alan Webber in 2003. In September 2009, the Town of Middleton Selectmen voted to rename this area to "Pike Messenger Conservation Park" in honor of Pike Messenger, who retired as Conservation Agent for the town in July 2009 after devoting many years in helping to protect natural resources within the community. A couple years later nine abutting acres to the east were given the town by the Ferncroft developer Flately . The basic lay of the land this trail and side paths skirt consists of a west-east running brook and red maple swamp in a valley between the wet north slope of Bare Hill, a glacier formed drumlin, and a flat well drained terrace below Dearborn Way and Nathan Lane. The terrace has one of the best stands of pitch pines in town. This species thrives after fires and is common on the South Shore and Cape Cod. Check the thick-rough fire resistant bark as you walk among them. Note the difference between this species (3-needles per bunch) and our common white pine (5-needles).

The wet valley soils, muck some two to three feet deep, are dominated by water loving red maples. Jonathan Webber, son of Alan, said he cut many cords along the brook for firewood in the 1970's when wood as fuel became popular during the "oil crisis". Many of the maples are sprouts from his cut stumps. They plus about 17 years are the age of Jonathan.

After entering through the parking area off Locust Street continue on foot and walk our trails. There are also side paths not on the map you are welcome to explore. The following are features to look out for as you follow the trail in a clockwise loop. Note the stonewall bound just to the east as you proceed south toward the brook and then up the hill. You'll see others all over town; most were built in the period between the French and Indian War and Mexican War as bounds, which were in places topped with rail fences. Barbed wire wasn't available until after the Civil War. The walls of this rough terrain were not land clearing depositories as are the stonewalls around cultivated fields; the up and down land here was mostly used for pasture and orchards from the 16th to the 20th century. There are signs here other than the topography indicating such use. After descending under the oaks and pines notice the change in vegetation as the path levels off on to a causeway across the brook and red maple swamp. The water flows through a culvert under Locust Street, then easterly to Nichols Brook where it slowly meanders northerly through a broad wet floodplain to the Ipswich River.

After crossing the causeway admire the thick stand of cinnamon ferns to your right. Look for some small gray trees with corded arm-muscle-like trunks. The wood of this small tree called muscle wood or ironwood was used for tools because of its hardness and strength.

The woods across the brook to the south are of mixed hardwoods with red oaks dominating. Many of the trees to the east are in the grip of the shade of oriental bittersweet. As you climb south up the hill note the jungle-like vines of this invasive-exotic species climbing its victims. If no host trunk is available they embrace others of their own kind thus forming the great cables seen.

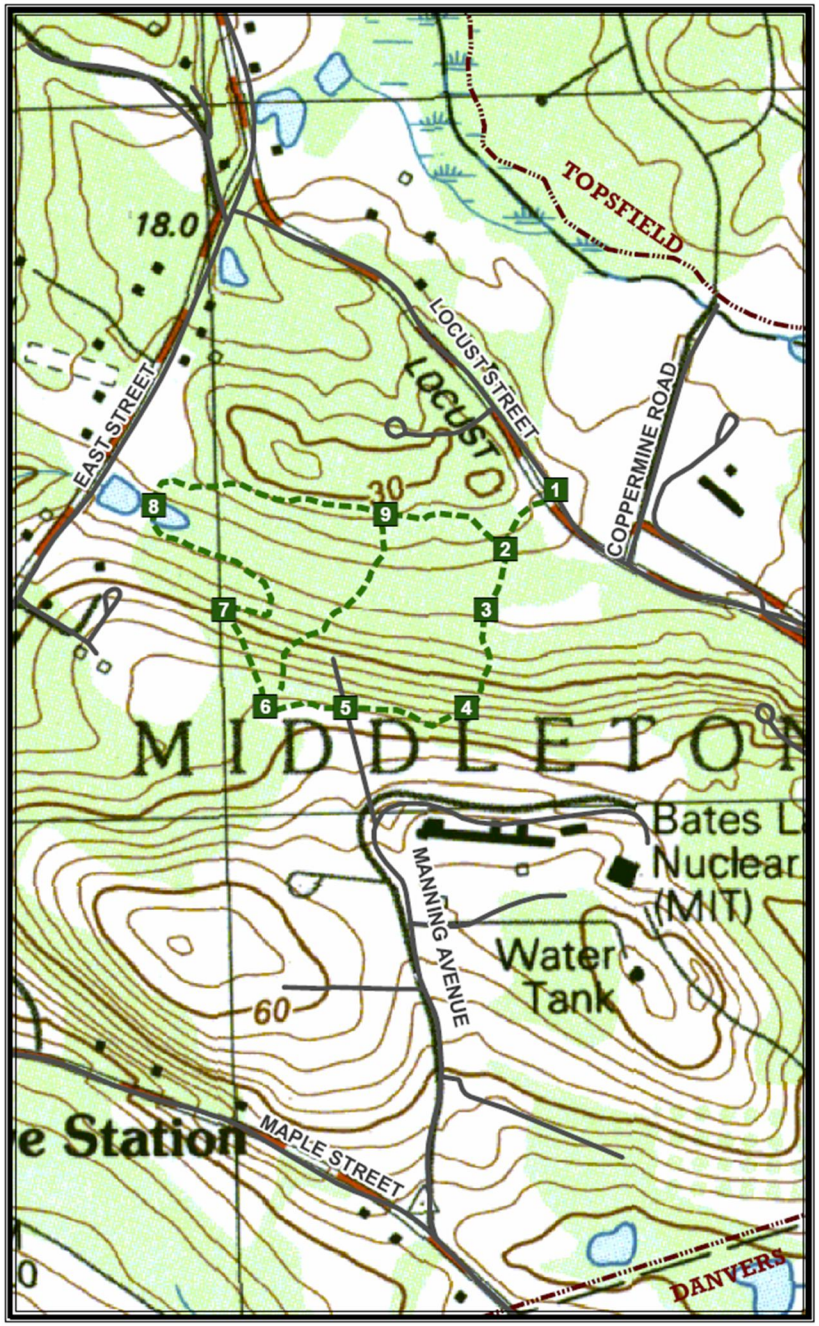
MIDDLETON HEALTH DEPT.
TOWN OF MIDDLETON, MASSACHUSETTS
Knowledge is power
FOUNDED IN 1728

Public Health
Prevent. Promote. Protect.

WAY POINTS "LOST 50"

(Approx Length of multiple trails = 5.0 miles / Moderate Incline)

1 Start on North Liberty Street, look for ruins left & right
2 End of entrance walls, probably a cow run
3 Fork to northwest
4 Intermittent stream
5 Crossing from Lost Fifty to Richardson land , stonewall. Note blue blazes around state's Lost Fifty and red blazes marking Richardson bounds
6 Trail from Lost Fifty intersects one northwest to southeast, turn northwest
7 Hemlock grove on ledge
8 Glacial erratics in oak upland
9 Cross intermittent stream flowing northeast to southwest
10 & 22 Junction of main trail to Bald Hill, turn left (for west loop) or con't on for east loop.
11 Old car carcasses, turn left and take trail to south
12 On north-south trail
13 Intermittent stream flowing to nearby Sharpners Pond
14 Bear right (when proceeding south) up slight knoll on cleared path, this is the Sharpners Pond overlook. Continue south to North Liberty Street
15 North Entrance to Richardson's Second Pasture on North Liberty Street
16 Crossing over brook down from Sharpners Pond through woods and then pasture
17 Walls of south facing barn cellar ruins on north edge of Second Pasture
18 Beaver dam on old causeway and across Pond Meadow Brook (a.k.a Pout Pond)
19 Stone wall on west side of onetime white cedar swamp now beaver impoundment and heron rookery (Pond Meadow Pond floodplain)
20 Intermittent stream flowing east to Pond Meadow Pond beaver impoundment, junction of trails with BTA trail arrows 6 and 21 Southern junction of West and East loops of Lost Fifty trails (See way points for West Loop.)
22 North junction of west and east loops of Lost Fifty trails on main west-east trail from Sharpners Pond Road to Bald Hill, Boxford State Forest
23 On Sharpners Pond Road to Bald Hill trail, Boxford State Forest
24 On Sharpners Pond Road to Bald Hill trail, Boxford State Forest
25 On Sharpners Pond Road to Bald Hill trail, Boxford State Forest, just north of North Andover- Boxford-Middleton junction monument
26 Beaver dam between Boxford wetlands, now impounded, and Pond Meadow Pond impoundment, see Boy Scout bridge across stream that flows to Pond Meadow Pond Pond.
27 Trail to south off main trail Sharpners Pond Road to Bald Hill, this trail is on west edge of Pond Meadow Pond beaver impoundment.
28 View of Pond Meadow Pond to east overlooking the grove of dead Atlantic white cedars
20/29 Junction of trails with BTA arrows, intermittent stream flowing to flowing east to Pond Meadow Pond beaver impoundment



WAY POINTS
PIKE MESSENGER CONSERVATION PARK
(Approx Length=1.0 / Moderate Incline)

1 Locust Street Entrance to small parking lot

2 Divergence at base of slope

3 Unnamed brook (How about Jonathan Brook for man, Jonathan Webber, who cut cordwood there as a boy?)

4 On easternmost rail near highest point

5 Approaching Pond View Estates condos to south east

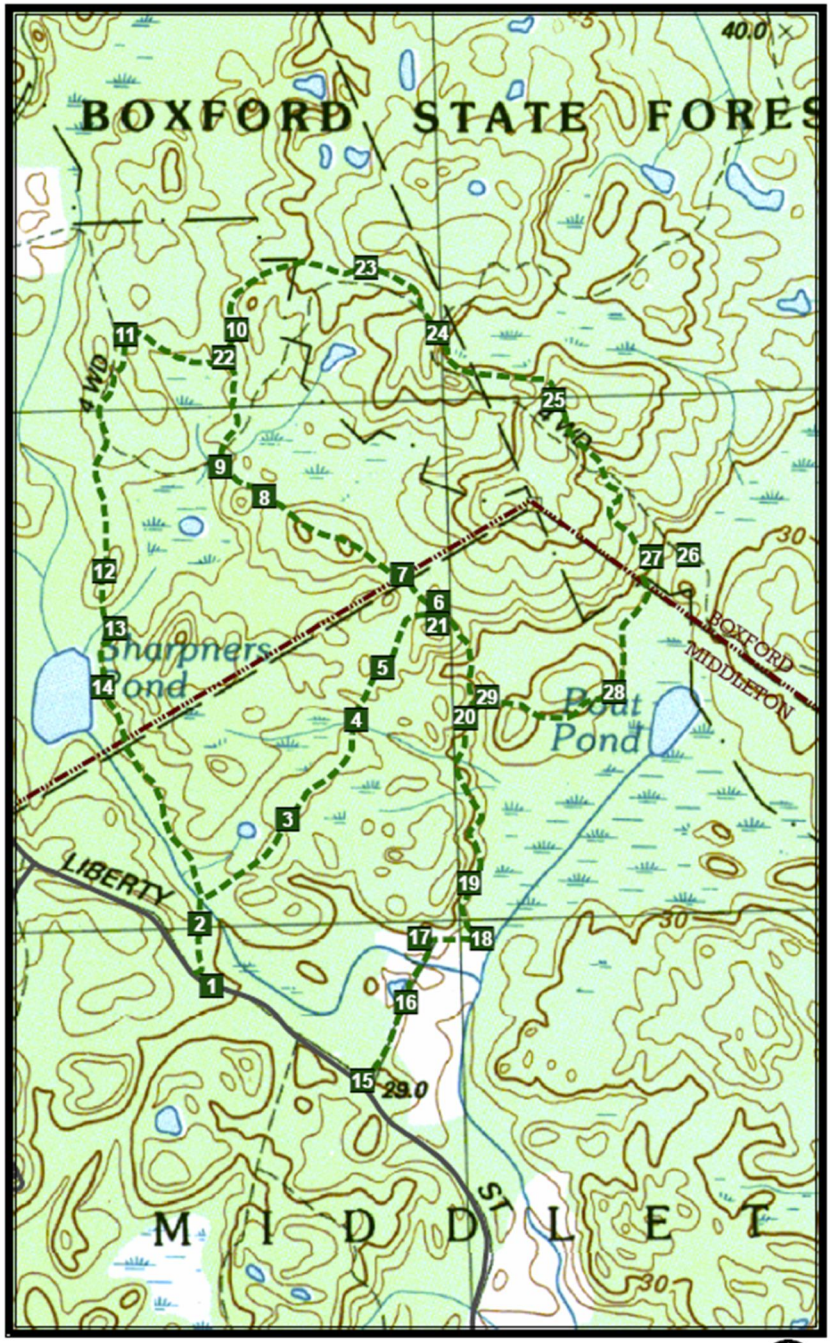
6 Trail near northeastern most condo

7 Turn, descending to northeast east for short distance

8 Brook crossing between ponds

9 Junction with trail to south





LOST 50 LOOPS

(Nature of trails: 1. East loop - wooded, much up and down with moderate grades, portions rough not well cleared, leisurely two hours 2. West loop - wooded, gentle to moderate grades, a couple wet crossings in season, leisurely two hours)

In the northern part of Middleton and beyond there is much protected land thanks to the late Charles Prichard, his daughters Linda Labaree, Susan Collins, and Joan Cudhea, the Essex County Greenbelt Association, Boxford State Forest, and Boxford Trails Association/ Boxford Land Trust. In the mid-20th century Prichard bought about 63 acres sight unseen straddling the north Andover-Middleton line. After Prichard bought the land he and his then young girls went looking for it and couldn't find hence the Middleton portion was dubbed "The Lost 50". It was soon after found and a half century later in 2000 Joan and Linda sold 50 acres in Middleton and 13 in North Andover to the State at a bargain price for conservation/open space land. Greenbelt and the Middleton Conservation Commission assisted in the deal.

The loops shown on the map are best accessed from North Liberty Street in Middleton. You may also park on the east end of Sharpners Pond Road, in North Andover, and follow the Bay Circuit Trail southeasterly toward Bald Hill. WP 11 is on that trail. The junction where the west loop of the Lost 50 joins is easy to recognize because of the rusting abandoned car and truck bodies there. You may chose to continue on the main trail to Bald Hill, Boxford, and then around or over it easterly to Middleton Road, Boxford, or southerly from Bald Hill on wooded Thomas Road to Peabody Street, Middleton. See our main map that shows most of the Middleton trails and some in adjacent towns at the beginning of this booklet.

The west loop of The Lost 50 can be done in a leisurely two hours. If you proceed from unpaved North Liberty Street you'll pass between the stonewalls of what was once probably a cattle run. Before doing so visit an old cellar hole on North Liberty Street just to the right of the trail entrance (WP 1). Also look to the left first off the trail entrance. What was the circle of stones? We don't know. Imagine the whole area without trees except for a few pasture oaks. Such big old spreading oaks, now with much younger company, were left by farmers to provide shade for livestock. Their limbs grew horizontally due lack of competition. The land of The Lost 50 loops is now largely covered with mature hard woods; the dominant trees are oaks. Among them are scattered white pines and a few groves of hemlock. Red maples dominate in the wet areas.

You'll soon encounter an intermittent stream flowing southeast from Sharpners Pond. In the spring you'll have to detour off the trail a bit to get around the water. Just over the stream two roads diverge. Here you may choose to go clock, or counter clockwise, around the loop. If you choose the latter, at WP 14 leave the trail and climb the gentle rise that overlooks shallow Sharpners Pond. A large wetland to the northeast drains to it. Up on reaching it (WP 13) attempt to cross the rotting log causeway nature has provided. Be careful. Note beaver activity here and elsewhere.

As you continue keep in mind the Wisconsin continental glacier that sculpted this land just 15,000 years ago. Its half-mile thick ice renovated the unfinished work of a half dozen glaciers that had come before. Upon leaving, the sculptors left much debris. Look closely for signs, whether on woodland trails, where there are many, or just driving area streets.



Deer tracks in the snow. Narrow section of tracks (top of photo) points to the direction the deer traveled.
Photo: Derek Fullerton

TICK & MOSQUITO TIPS

- Deer tick adults and nymphs may carry Lyme Disease, Babesiosis & Ehrlichiosis . American dog ticks have not been shown to carry these diseases.
- Ticks are found generally in a wooded habitat, near the ground. They may be active during any month, but late spring to early summer, and fall, are seasons of high risk.
- Ticks may be seen readily on light covered clothing. Tuck pant legs into socks when walking in the woods & perform a tick check every day.
- Remove imbedded ticks promptly. For proper removal, use tweezers to grasp the tick at the point of entry and pull back steadily. Avoid squeezing the body, and then swab the site with antiseptic.
- If you suspect that you have Lyme Disease, see your doctor. Symptoms vary, but may include flu, headache, joint aches, and/or a reddish circular rash.
- It is important to look at the "active ingredient" on the product label. Products with DEET (N,N-diethyl- m-toluamide) or permethrin are recommended for protection against ticks; check the label for proper use.
- This card available at the Middleton Health Department



- Mosquitoes can carry both West Nile Virus (WNV) and Eastern Equine Encephalitis (EEE); protect your self by:
- Wearing long pants and long sleeved shirts when walking.
- Using a good mosquito repellent containing DEET (follow instructions on the label)

Imagine flowing plastic, which ice at pressures 66-meters deep becomes, carrying boulders called " erratics " stripped from distant mountains and ledges and gravel, sand, silt and clay. Some geologists have characterized the base of a glacier as a slow belt sander moving a few dozen yards each year. When the glaciers melted back from their fronts they left great blocks of ice that sediment built up around to form "kettle ponds", oval northwest-south east axis hills called "drumlins", serpentine levee like deposits called "eskers", and outwash plains of debris between ledges, hills, and mountains of bedrock. Look for signs of these. Bald Hill a classic drumlin just off this map to the east.

The west loop at WP 22 turns south. It you have time continue on and do the east loop or just stay on the main well traveled trail to Bald Hill in Boxford State Forest. (By the way as you hike in the north part of town keep an eye out for the blue tags that mark state forest bounds. You may also see red painted blazes on trees marking Richardson Farm land.) If you choose the trail between the west and east loops, WP 22 to WP 6, you will soon come upon spectacular erratics . Climb exposed ledges and erratics and look for scratches and grooves gouged by moving sediment laden ice. You'll pass through boulders fields here and throughout area towns. These were largely soil covered when the English came with their devastating hoofed livestock. In over-grazed hoof-stirred areas erosion stripped away the thin topsoil covering the boulders. It was washed by rains and snow melt to lower lands. The Indians who lived much more lightly on the land had had no livestock. The few who had survived Old World diseases complained to early English selectmen about the damage cattle, especially hogs were doing.

At WP 6 you may choose to descend to Pond Meadow Pond (a.k.a Pout Pond) where the beavers have taken over, or turn southwest to the start, WP 1 on North Liberty Street. If you choose the latter keep an eye out for vernal pools. These are low places where the ground water is visible. They have no incoming or outgoing streams and usually dry up each year. Since there are no fish to eat their eggs and larvae many small animals, such as, fairy shrimp, wood frogs and salamanders can successfully breed within them. However, the amphibian tadpoles must metamorphose into adults with legs and leave before the pond dries up, often in late June and July.

If you do the east loop that skirts the west edge of the Pond Meadow Pond beaver impoundment note the thick stands of dead Atlantic white cedars, a species that loves water but can't take too much year around. The beaver dam at WP 18, built about 1999, raised the water in almost 100-acres of red maple/white cedar swamp and in the next few years killed all the trees. You may access this trail from North Liberty Street at WP 15. The pasture crossed is "Second Pasture" owned by Richardson Farms. Non-milking cows and heifers graze there and in the surrounding woods from spring on into fall. These open lands, pastures and beaver impoundments are rich wildlife habitats. As you walk on the edge of the impoundment, WP 18 to WP 27 look to the east at the great blue heron nests high in dead white pines. We counted 26 nests in 2006. Visit this rookery May to July when the young are noisily being fed. You'll probably see fewer nests now the dead trees are succumbing to wind, ice, and rot. The herons may soon leave and look for a beaver impoundment with more recently drowned trees. Beware the winter ice on these impoundments, ponds, streams, and vernal pools. In places underneath there are warmer springs and decaying organic matter both of which may render the ice above unsafe.

On the east loop in a hemlock grove in the vicinity WP 28 stop awhile and look out on beautiful unspoiled Pond Meadow Pond (a.k.a Pout Pond). A few folks fish through the ice here. This 14-ft. deep, 4-acre pond, has had a large beaver lodge on its south edge since 2002. Just to the north of the pond is the Boxford/Middleton line. Check the large beaver dam at WP 26. Its huge impoundment has drowned a red maple swamp for a mile northeast into Boxford.

Try to find the fine natural granite monument where the bounds of North Andover, Middleton and Boxford meet. This short off the trail side trip is well worth the effort. In the old days selectmen would perambulate the bounds and leave pennies in the surveyors' drill holes in the tops of the stone monuments. Due to inflation you should leave at least a quarter.



Trail Marker on Tree on Lost 50 Trail

Retrace your steps a few feet and bear easterly just above the floodplain. Many times you'll find yourself walking the ridges between gravel pits. Try to imagine the whole area filled with the sounds of excavating equipment and trucks. Note the numerous signs of beaver. They have dams across the river's channel just to the east. At one point in the vicinity of WP 6 you'll cross a ditch they've dug that connects a pond with the river's floodplain. The dead trees to the east in the floodplain have been killed by their dams that keep the water high year round. The red maples, swamp white oaks, willows, and ash species there like water but not too much, too long.

At WP 7 there is a large pond and across it the buildings of the industrial park built 2007 to 2009. They, condo-like, contain "bays" for tenant companies. The pond is a fishing spot. In June we often see female turtles laying eggs in the open land just to its north. The open land mentioned is Lonergan Road and its wide shoulders. It too will be mowed once each year after nesting season. Open land where grasses and weeds flourish is good wildlife habitat. The most valuable of all are "edges" where woods meet fields and clearings such as this.

Proceed northeast on Lonergan, just beyond the flanking trees are the floodplains of the river to the east and Punchards Brook to the north. Soon you'll be on a gravel causeway built across these floodplains. Punchards Brook crosses under it through a four -foot diameter culvert. The small area of open water just before the culvert is a favorite hangout for herons. We've seen green herons, little blue herons, night herons, great egrets, and great blue herons here. The many bushes rising up above the water are attractive perches for courting and nesting red-winged blackbirds. This whole area is a bird paradise. See our canoe trip map entitled " Ipswich River from North Reading to Topsfield". This section of the river, just to the east of Lonergan Road, from Bostik to Route 114 is a very interesting paddle.

In the late winter and spring you may be able to go no further than the Punchards Brook culvert without boots. The mean annual high-water of the Ipswich River and Punchards Brook covers the remainder of Lonergan with a foot or more of water. Return July to October and try again. Lonergan will take you out to Route 114. If you want and are able, walk the trail from north to south; park at Farnsworth Landing at the junction of 114 and the river and walk in form the paved portion of Lonergan Road.

The rows of small trees along each side of the flooded section of Lonergan are alders. They are the ones with dark gray, white-speckled, bark covering corrugated trunks. On the twigs are cone-like structures from which come seeds. There are small nodules of a bacterium on the roots. This bacterium has the ability to oxidize unusable atmospheric nitrogen into usable nitrates. Legumes such as beans and clover can do the same thus enriching the soil.

Return the way you came; feel free to explore off the trail. Do not go on the industrial park's land. If Lonergan isn't flooded continue on out to Route 114.

LONERGAN ROAD

(Nature of trail: mostly gentle grades, up and down in places but never high, about half wooded, half open, trail marked but not cleared as of August '09, leisurely one hour)

This trail is on mostly40 acres recently given the town in 2009 for conservation/open space. The trail head is accessed from the Middleton Transfer Station at the end of Natsue Way off River Street. Just before the Transfer Station gate turn into the overflow soccer field parking lot on your left. Walk east along the swale just outside the fence until you come to a stormwater detention pond. Walk to the south and then north around it until you find the trail entrance leading into the woods. On entering you'll find yourself descending into one or many old gravel pits.

Lonergan Road, the road the trail very roughly follows, was built in the 1960s across the Ipswich River floodplain. In 1946 sixteen-year old Raymond Peachey was killed by a gravel truck. One account is that while on his way home from work he hopped on the rear of one, then fell and was hit by another in a line of trucks that were taking a good chunk of Middleton down to Logan airport for runways. After more than a decade of heavy truck traffic in the area, complaints from folks forced the gravel miners' trucks off River Street. There was no Wetland Protection Act then so a road was built more or less straight out from the pits to Route 114 across wetland and floodplain. Robert Peachey, brother of Ray, says he remembers as many as 600 truckloads a day were taken at times between 6 AM and midnight. Low hills twenty to thirty feet high were removed. By the late 1960s much of the area between River Street and the river resembled moonscape. The many craters, once gravel pits, are now mostly covered by trees and bushes. The land, taken down to the water table has no topsoil yet vegetation thrives. This large mined area is one of the richest and most diverse wildlife habitats in town largely because of its many gravel pit pools and the nearby river. Much of the land from the transfer station east, well into Danvers and Peabody, is protected as wetland. Recently an industrial park was permitted on 7 acres of upland surrounded by the floodplain. The developer, Ralph DiGiorgio, gave 40 acres to the town, which added to other protected town and Greenbelt parcels in the area.

Until the trail is cleared and marked, better you'll have to bushwhack over sections of the trail shown on the map. Keep a sharp eye out for birds, coyotes, turtles in season, deer, mink, beaver, otter, muskrats, and many birds.

Soon after entering at WP 2 you'll come to a cleared field of grasses, weeds and sand (WP 3). This is an important nesting area June through October for female turtles up from the nearby river and gravel pit ponds. Alas, skunks, raccoons and other predators find and dig out many eggs within a few hours and days of being laid. Look for their leathery white shells. The town plans to yearly mow this area in the fall after nesting season to keep it open and free of trees and bushes.

Continue on to the river until you are standing on its bank (WP 5). Midway across the channel is the boundary between Middleton and Peabody. This point is also about midway between the Ipswich River's headwaters in Wilmington and the sea in Ipswich.

TRAIL NOTES



Ipswich River Scene - Photo: Derek Fullerton

Obesity

This rate of obesity raises concern because of its implications for the health of Americans. Obesity increases the risk of many diseases and health conditions. These include-

- Coronary heart disease
- Type 2 diabetes
- Cancers (endometrial, breast, and colon)
- High blood pressure
- Stroke
- Sleep apnea and respiratory problems
- Osteoarthritis (a degeneration of cartilage and its underlying bone within a joint)
- Gynecological problems (abnormal menses, infertility)

Achieving a healthy weight is usually done through dietary changes, increased activity and behavior modification. Depending on your situation, your doctor may suggest prescription medication or weight-loss surgery to supplement these efforts.

Dietary changes
Adopting a new eating style that promotes weight loss must include lowering your total calorie intake. One way you can lower your calorie intake is by eating more plant-based foods - fruits, vegetables and whole grains. Strive for variety to help you achieve your goals without giving up taste or nutrition. Cutting back on calories is easier if you focus on limiting sugar and other refined carbohydrates and some types of fat.
Ask your doctor to help you determine your calorie goals to lose weight. He or she may recommend that you also work with a dietitian or a reputable weight-loss program.

Increased physical activity
Cutting 250 calories from your daily diet can help you lose about half a pound a week: 3,500 calories equals 1 pound of fat. But add a 30-minute brisk walk four days a week, and you can double your rate of weight loss.
The goal of exercise for weight loss is to burn more calories, although exercise offers many other benefits as well. How many calories you burn depends on the frequency, duration and intensity of your activities. One of the best ways to lose body fat is through steady aerobic exercise - such as walking - for more than 30 minutes most days of the week.
Even though regularly scheduled aerobic exercise is most efficient for losing fat, any extra movement helps burn calories. Lifestyle activities may be easier to fit into your day. Think about ways you can increase your physical activity throughout the day.



WAY POINTS
LONERGAN ROAD TRAIL
(Approx Length = 1.1 miles / Relatively Flat with slight incline areas)

1 Start at the parking Lot start north of transfer station. See sign on cyclone fence.

2 Entrance to woods trail from berm east of the detention pond

3 Passing from woods to open area that is turtle nesting site

4 Leaving turtle nesting field and entering trail to river

5 Ipswich River bank

6 East end of old gravel pit peninsula on edge of river floodplain

7 Northeast corner of large pond

8 Four-foot culvert under Lonergan Road that connects Punchards Brook wetland to Ipswich River floodplain

9 End of paved portion near golf driving range

For example, make several trips up and down stairs instead of using the elevator, or park at the far end of the lot.
If you're obese, particularly if you're unfit and have health problems, check with your doctor before starting an exercise program.

Behavior modification
To lose weight and keep it off, you need to make changes in your lifestyle. But there's more to changing your lifestyle than choosing different foods and putting more activity into your day. It also involves changing your approach to eating and activity, which means changing how you think, feel and act.
A behavior modification program - led by a psychologist, therapist or other trained professional - can help you make these lifestyle changes. Behavior modification programs may include examining your current habits to find out what factors or situations may have contributed to your excess weight. Exploring your current eating and exercise habits gives you a place to start when changing your behaviors.
Once you understand which habits are undermining your weight-loss efforts, you can take steps to create a new, healthier lifestyle. These tips can help:

- **Have a plan.** Work out a strategy that will gradually change your habits and attitudes. Consider how often and how long you will exercise. Determine a realistic eating plan that includes plenty of water, fruits and vegetables. Write it down and choose a start date.

- **Set realistic goals.** Weight-loss goals can be process goals, such as exercising regularly, or outcome goals, such as losing 20 pounds. Make sure process goals are realistic, specific and measurable. For example, you'll walk for 30 minutes a day, five days a week. For outcome goals, aim to lose weight at a safe pace of 1 or 2 pounds a week. Losing weight more rapidly means losing water weight or muscle tissue, rather than fat.

- **Avoid food triggers.** Distract yourself from your desire to eat with something positive, such as calling a friend. Practice saying no to unhealthy foods and big portions. Eat when you're actually hungry - not when the clock says it's time to eat.

- **Keep a record.** Keep a food and activity diary, so you can reinforce good habits and discover any behaviors that you may need to improve. Be sure to track other important health parameters such as blood pressure, cholesterol levels and overall fitness.

WAY POINTS
PRICHARDS POND CUDHEA'S CRICK LOOP
(Approx Length = 1.7 miles / Moderate Incline)

1 Mundy Bridge (two four-foot culverts), North Liberty Street over Boston Brook where it enters Prichard Pond

2 Entrance to Cudhea driveway off North Liberty Street (Munday cellar hole) (No trespassing signs apply to vehicles)

3 Steel Bridge across Pond Meadow Brook

4 Fork in road, driveway/trail continues to southeast and trail to northeast

5 Trail off to east from driveway

6 Prichards Dam, built in early 20th century

7 Entrance, trail to northeast

8 Woodland intermittent swale below high ledge to northwest

9 Stonewall running east to west

10 Main trail, Mill Street to North Liberty Street

11 Stepping stones across Cudheas Crick

12 Turn to northwest off trail, vernal pool to east, Cudheas' Crick to west

13 Uppermost and largest of four beaver dams (2009)

14 Lowest of four beaver dams

15 Clump of four large red oaks from one long deceased parent stump

4 Fork in road (see above)

You can practice sun protective behaviors by wearing a wide-brimmed hat, wearing sunscreen with SPF 15+, wearing sunglasses that block 99-100% UVA/ UVB radiation, limiting sun exposure between 10 a.m. and 4 p.m., seeking shade when possible, and wearing long-sleeved shirts and pants.

Adapted from the Massachusetts Department of Health's Ban the Burn Community Resource Guide. It was developed through a cooperative agreement from the Centers for Disease Control and Prevention.

Summer camp, yard work, the beach, sports events are all activities that go along with summer. It is time to break out the sunscreen, umbrella, hat, and sunglasses for the summer. But we should not only think about sun protection in the summer. Exposed skin and eyes are vulnerable to sun damage in the winter, even though people spend less time outdoors and tend to cover up when they do go out. The reflective surface of the snow and the high altitude when doing such sports as skiing add up to an unhealthy dose of UV radiation from the sun.

Unfortunately, many people still start their spring or summer with one or two "good" sunburns to get a base to help them suntan the rest of the summer. What many people don't realize is that damage from the sun is cumulative over one's lifetime and three severe burns (painful burns that peel or cause water blisters) anytime in our life increases our risk of developing melanoma by as much as eight times. Sun exposure also accounts for up to 90 percent of what we consider aging of the skin and increases the risk of skin eye damage such as cataracts.

Malignant melanoma, a type of skin cancer, is the nation's fastest growing cancer among people with light skin color. In the last decade the incidence rate has doubled. Although the risk is higher for those with very fair skin, light brown, blonde or red hair, and blue, hazel, or green eyes, others are at risk also. It is estimated 11,590 Americans will die from skin cancer in 2009.

But you can minimize your risk by wearing a hat and protective clothing, using sunscreen, and limiting time in the sun between 10 a.m. and 4 p.m.

SUN SAFETY

Most people are not aware that not only can overexposure to the sun result in painful sunburn, but also can lead to serious health problems, including melanoma. Melanoma is the deadliest form of skin cancer.

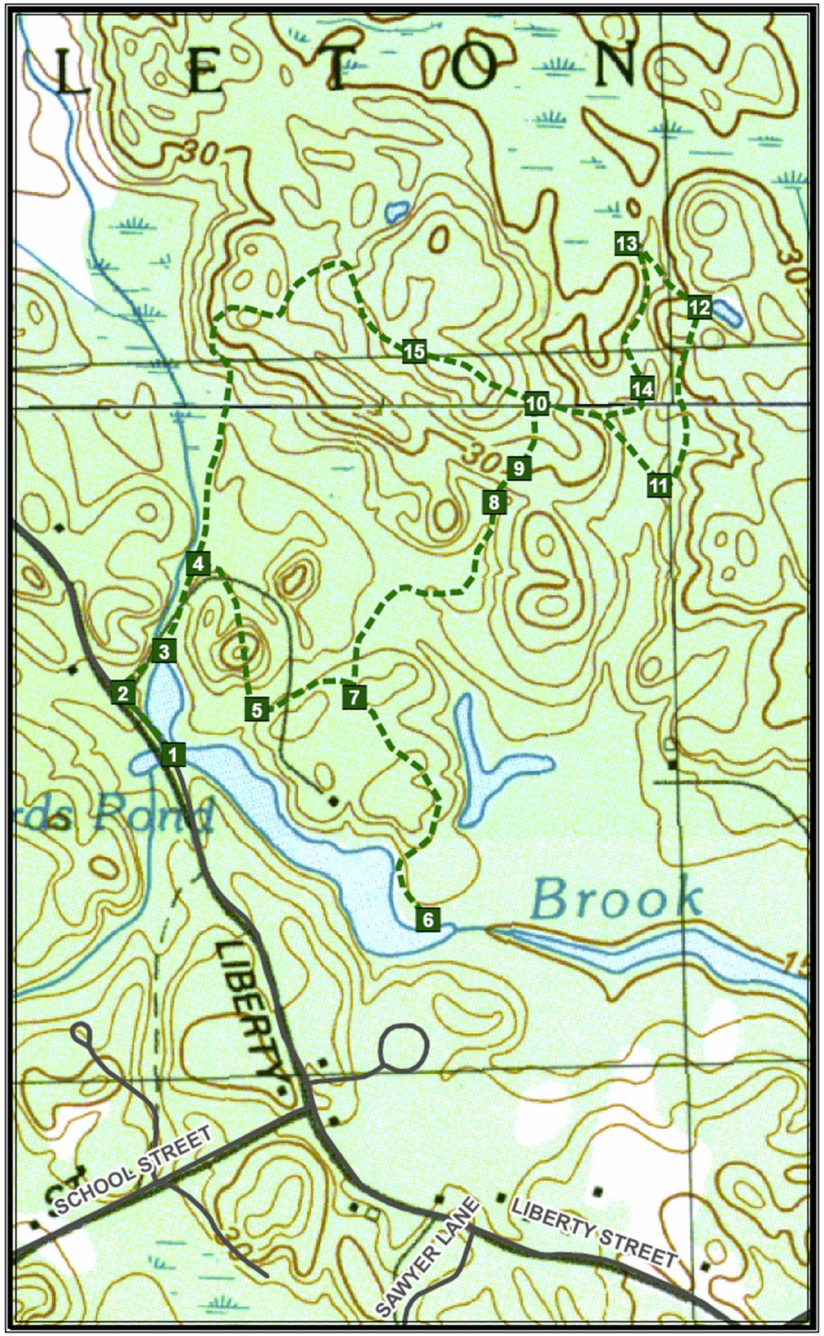
According to the American Academy of Dermatology here are some facts you should know:

- Skin cancer is more common than all other types of cancer combined.
- One or two blistering sunburns during childhood may double the risk of melanoma later in life.
- Overexposure to the sun may lead to skin cancer, cataracts, immune system suppression, and premature aging of the skin.
- American Academy of Dermatology suggests the following precautions to prevent sun-related problems now and later in life. Started early and followed consistently, each of these will become an easy, accepted habit, no more bothersome that fastening seatbelts every time you get in a car.
- Wear sunglasses that block 99-100% of UV radiation Sunglasses that provide 99%-100% UVA and
- UVB protection will greatly reduce sun exposure that can lead to cataracts and other eye damage.
- Wear a hat A hat with a wide brim offers good sun protection over eyes, ears, face, and the back of the neck.
- Protect other areas with clothing during prolonged periods in the sun Tightly woven, loose-fitting clothes are best, but any clothing is better than none at all.
- Always use sunscreen with an SPF of 15 or higher A sunscreen with Sun Protection Factor (SPF) of at least 15 blocks most of the harmful UV rays. Apply sunscreen liberally and often while outdoors.
- Limit time in the sun during the midday hours. The sun's UV rays are strongest between 10 a.m. and 4 p.m. Seek shade when possible during these hours.

Looking our best is important for all of us. When we look good we feel good. Unfortunately many of us believe we look better with a suntan. The bad news is that this way of thinking may cause one in five of us to develop skin cancer at some point in our life. The good news in that the vast majority 0f skin cancer is entirely preventable.

Experts believe that most skin cancers are caused by overexposure to the sun and, therefore, are preventable.

The same is true for " photoaging " of the skin (i.e., wrinkles, age spots, thinning of the skin, and easy bruising). Compare the skin of your face or forearm (overexposed skin) to that of your stomach or underside of your forearm (less exposed skin). Do you see the difference?



PRICHARD POND TO CUDHEA'S CRICK LOOP

(Nature of the trail: wooded, mostly gentle grades, two fairly high, moderately steep stretches, short section without path, couple crossings seasonably wet, leisurely two hours)

Liberty and North Liberty Streets were once important roads between colonial Andover and Salem. Proceed north on them (Liberty becomes North Liberty) until you come to Boston Brook. Park on the east side of the road just south of Mundy Bridge. The pond to the east is Prichards Pond, a third-mile long impoundment behind a dam built by Charles R. Prichard early in the late 1920's. By building this dam he provided a "pleasure pond" so called by the Essex County dam inspector. He then constructed a cottage on a rise facing the pond as a weekend retreat for his family then living in Lynn. His son, Charles Jr., did much-needed repairs to the dam in the early 1960's, adding concrete and steel rebar. His daughter Joan Prichard Cudhea and her son Peter Cudhea now own the cottage and much of the land this trail is on. In 2010 much of the Cudhea land became protected under conservation restriction held by the Essex County Greenbelt Association.

You'll run across the Prichard name several times in this booklet. Charles R. Prichard, Jr. and daughters Joan Cudhea, Susan Collins, and Linda Labaree, have given or sold at low prices to the Town, the State, New England Forestry Foundation, and Essex Country Greenbelt Association hundreds acres for open space/conservation land in Middleton. Mrs. Cudhea and son Peter have kindly agreed to allow walkers on her portion of this trail.

Before you begin on the mapped trail we recommend you walk south a couple hundred feet behind the New England Forestry Foundation sign and admire Middleton's only real "white water" where Boston Brook descends down over several hundred feet of rocky bottom. There is a trail along its south bank, follow it upstream to the Boy Scout Bridge. Cross it to the north bank and then turn left off the path, west, and continue a short distance upstream. Keep a sharp eye out for the ruins of perhaps our oldest mill dam built in the late 17th century when what is now Middleton was part of Salem and the land from the bridge just crossed in the west part of Boxford. We have not put this easily described side trip that should take less than 20 minutes round trip on the trail map. It is well worth the time for the views and sounds of the brook alone. The lively water you see may have left Boston Hill, North Andover, a couple days before. Boston Brook, nine miles or so long, is one of the Ipswich River's largest tributaries. The land above the banks and floodplains along over half its length are undeveloped. It is stocked with rainbow trout each spring at the Sharpners Pond Road crossing two and one-half miles upstream.

Return to Mundy Bridge named after a woman who lived nearby and proceed north up the street. Look for a cellar hole, now filled with decades old trees, on the right next to the pond. (WP2) This may have been the foundation to Mrs. Mundy's house. The old lilacs there once graced her front door. Our surviving historic houses for the most part were probably built and occupied by relatively wealthy farmers. The houses of hired hands and tradesman were on average much less substantial and most long ago succumbed to rot or fire. We know of other woodland cellar holes in town about this size and even smaller. Many working folks, perhaps most, lived in small houses with neither stout foundations nor full cellars. We digress, avanti.

Emergency Preparedness Begins at Home

Planning ahead for an emergency will give you peace of mind and can keep your family and friends safe. Middleton officials prepare for a range of possible emergencies, from hurricanes and blizzards to a flu pandemic and acts of terrorism. You can help also. Here are some simple steps you can take to prepare.

Family Communication Plan

Know how your family will contact each other and where you will meet.

Food & Water

Have a 3-day food and water supply for each person in your home. Remember individual diet needs and plan for your pets.

Bottled Water	Dry & Canned Foods
1 gallon, per person, per day	Canned fruits, vegetables & meats
Keep in cool, dry place	Manual can opener
	Juice boxes, canned milk
	Dried fruit, nuts, crackers, cereal bars
	Baby food and formula
	Pet food

First Aid & Tools

Have a first aid kit with health products and prescription medicine

First Aid & Products	Tools & Special Items
First Aid Kit	Remember these important items:
Bandages, gauze, rubbing alcohol	Flashlight, battery-powered radio
Medical gloves and tape, scissors	Extra batteries
Pain reliever	Important documents such as birth
Soap, toilet paper, toothpaste	certificates and bank account numbers

Evacuation Kit

Have supplies ready in your car or in a backpack in case you must leave home. Pack lightly and include basic supplies for 24 to 48 hours.

A change of clothing	Bottled water and cereal bars
First aid supplies	Prescription medicine

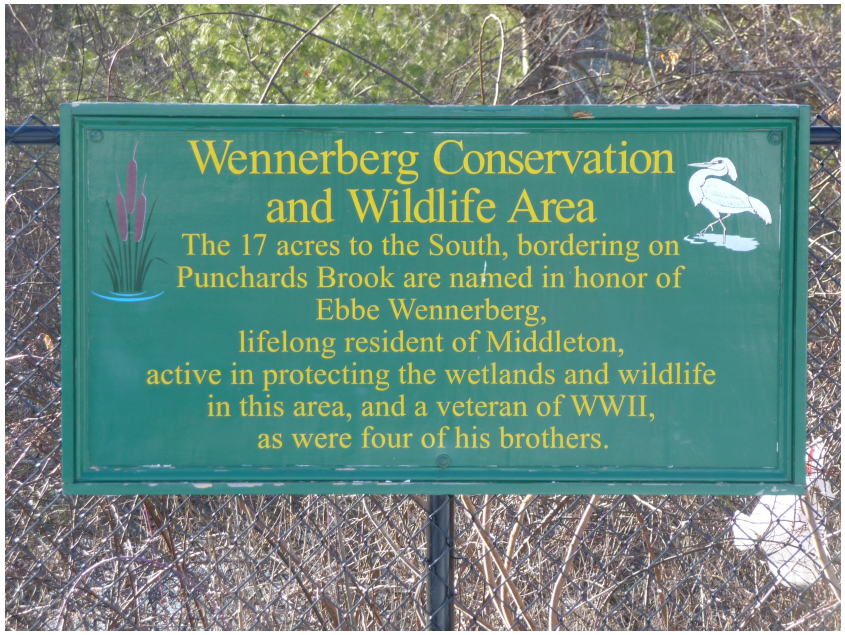
Review

Every 6 months review your plans and supplies with everyone in your home. Replace expired food, water, and medicine. Update your communication plan.

Woolly adelgids moved up from southern New England and have in recent years reached the Vermont and New Hampshire borders. Look on the ends of branches for tiny seed cones. The lumber, before plywood, was used for house siding.

Upon encountering a stonewall, know you are approaching the Wennerberg area's northerly bound. Don't go any nearer the house you see just to your north. Stonewalls were built for the most part as bounds. Some along the edges of once cultivated fields were depositories of stones cleared from them.

Note the cyclone fence that keeps in the remaining Blais' livestock. The Wennerberg area ends at it. Please return more or less as you came. Do not explore too far north of the trail onto private land.



Sign at the end of Park Avenue, erected in 2005

Turn right into Cudheas' driveway at 25 North Liberty Street, marked with a Tree Farm sign and proceed east to beautiful Pond Meadow Brook bringing water down from distant Boxford to Boston Brook. Just beyond the steel plate bridge, which the Cudheas call Tuesday Bridge (Mundy, Tuesday . . .) and to your left is Cudheas' subtle Japanese garden, with a barely perceptible footpath you are welcome to stroll winding among moss covered rocks and ferns, the brook trickling along one side, the driveway on the other.

At this writing there is a row of red pines along the drive. They are destined to be cut and may be by the time you arrive. Charles R. Prichard who had a forestry vision for this land that had all been cut over and was called "sprout land" planted them and spruce. Red pines and spruce were probably chosen rather than the more common native and valuable white pine because of their resistance to white pine weevil and white pine blister common in the middle of last century.

When you get to the bend in the road you may go straight or turn right. This narrative is of a hike to the right (south) while still on the maintained driveway and counterclockwise on the overall trail. You'll soon, after the swale , formerly a wild cranberry bog, encounter a trail going off to the left (east). Take this path (WP 5). Do not proceed further down the driveway; please leave it and continue to the east on the woodland path. After a few hundred feet bear south and walk on to the dam (WP 6). En route in the winter you'll see houses nearby through the woods to the east. They are part of a relatively new development on the end of Mill Street, one of two "cluster developments" in town, the land circling the back yards of these houses is open space/conservation land. You are welcome to explore the woods beyond the stonewall, the one just off the trail to the east.

Charles R. Prichard built the dam as mentioned earlier. His son was ordered by Essex County inspectors to repair and make it stronger in the 1940's, which he did. During the great Mother's Day flood of 2006 a 30-ft long, 2-ft. deep, concrete section was torn away. Beavers disturbed by the drop in water level made a new dam just above the opening, which raised the water to its original height. They have lodges along the pond's banks. For access under the ice they need water that is deep enough for their entryways. The water is aerated as it passes over the dam. Dissolved oxygen helps many organisms down stream.

Retrace your steps north to WP 7 and bear right when you get to it. The woods you are and have been in is periodically cruised by a forester for the New England Forestry Foundation who marks the most valuable trees to harvest. Loggers then come in for a selective cut. The resulting increased sunlight allows the small understory trees to grow faster. Note all the young white pines in places. Released from the shade they grow quickly. Thick stands will result in more valuable logs. The trees competing with one another grow straight up for the light. Trees in the open have more spreading growth. In your woodland travels look for large old trees that spread widely among younger straighter trees. These are called pasture trees; the farmers spared them to provide shade for livestock. We have many "pasture oaks" hidden in the forests of Middleton .

When you get to the swale at WP 8, wet much of the year; look northwest at the high exposed granite ledge. Our igneous bedrock is well over 300,000,000 years old. There were three-mile high volcanic mountains here then. Time and erosion have brought the mountains low, the ledge exposed is the hardened and cooled magma once molten deep in the mountains' bowels. The loose rocks seen strewn over much of the town are those left by the continental glaciers, the last just 15,000-years ago. Until the English were settled over three centuries ago most were covered by topsoil formed since the ice's departure. Their hoofed animals and overgrazing stirred up and removed its protective cover of plants. Subsequent runoff eroded topsoil away into low lands thus exposing underlying boulders.

Soon you'll encounter a stonewall running east to west. It is a bound between Cudhea and Town land. There may once have been fences associated with it. In the 18th and early 19th century, until cheap barbed wire in the 1870's, fences were of wood. Most of our stonewalls came after Colonial wooden fences and in rough places like this were used to mark property lines. There was no need to clear fields except in cultivated areas. Check our area's off road walls in passing and see if you can figure out if they were primarily bounds or depositories of rocks from clearing fields for cultivation. In the 1870's one estimate was that there were 240,000 miles, the distance to the moon, of stonewalls in New England. Many were made from the mid 18th century on up until the time of the railroads in the 1840's.

After climbing past the high ledge you'll come to the main trail between Mill Street and North Liberty Street. Turn to the east and descend to Cudhea's Crick. It flows south to Boston Brook and converges with it just below Prichards Pond Dam. Be careful on the stepping-stones as you cross the brook. Continue on for a couple hundred more feet and then turn north on a trail paralleling the brook. Imagine this whole area without trees a century ago and cows drinking from this brook. When you get to WP 12 look to the northeast at the large vernal pool there. These pools usually dry up in late summer hence there are no breeding populations of fish to gobble up the vernal pool animals or their eggs. Walk around its edges and see what you can see. In April you might well find bunches of wood frog and salamander eggs. After hatching there will be tadpoles.

At WP 12 turn off the trail and descend to the west. You'll soon be at the upper reaches of Cudhea's Crick. This section is off the trail; for the next quarter mile if you follow our map you'll be bushwhacking. We send you here to look for beaver activity. Cross the brook and hike north to WP 13. In 2009 when this was written there was a large beaver dam crossing the brook here. Just to the northwest of it was a large beaver lodge. Above this dam are about 70 impounded acres. The higher water since about 2003 when the large dam was built has killed all the trees in this once red maple swamp. A rich beaver meadow in forming as the sun shines in where once there was shade.

Turn back to the main trail. We recommend you visit this partial loop around the scrub-shrub swamp with binoculars at dawn and dusk when the birds are active. Along the entire trail keep an eye out for signs of past agricultural use. This whole area was part of the Blais family farm. The western portion, just off town land, still is.

Back on the main trail continue on southwest along the edge of the red maple swamp to the southeast. You are welcome to walk out into it if you don't mind getting your feet wet. We don't advise it on winter ice, although there is little danger except for slipping and falling. Punchards Brook is shallow and has a firm sand bottom. The Wennerberg area's southern bound is the brook's center. As the ground rises a bit you'll enter a grove of mature white pines. At WP 4 note a clump of five mature red maples. These are the survivors of many sprouts that sprang forth after the parent tree was cut about a half-century ago. Here is a puzzle for you. What was the approximate diameter of the parent tree when cut? The parent's age may have been closer to a century. Now we've gone back to when the parent was a tiny seedling, about the time of our Civil War.

If you want to go way back in geologic time find the diminutive evergreens on the forest floor (WP5) called princess pines, a species of the ancient genus Lycopodium . In dinosaur times, long before flowering plants, the ancestors of these and ferns were the size of large trees.

At WP 6 you are on the bank of a meander in Punchards Brook. If not too wet wade or jump cross and explore the large red maple swamp to the south. Look for signs of old drainage ditches, most dug long ago by farmers to allow grazing and late summer haying on what then would have been called a wet meadow. In most years, by late July and August when somewhat dry, teams of horses and oxen would have been able to work these fields. We know it is difficult, but try to imagine our whole state with many more fields than woodlands. In the mid-19th century the grazed, cultivated and hayed areas would have made up more than 80 % of the land even out in the Berkshires. Those were the days when livestock greatly out numbered humans outside large towns and cities.

Punchards is now a cooler shaded brook along much of it length. Some of the runoff from the St. Agnes church roof is flowing by you. A friend's father, the late Chester Masse, used to put brook trout eggs from somewhere else in deeper pools just downstream and in other brooks around town in hopes he would get a naturally breeding population established. Many grew to a size that were caught and eaten; however, he and son didn't think any successfully reproduced.

Note the mature pitch pine just southeast of WP 6. This is the dominant pine species down in the Plymouth and Cape Cod areas. Our dominant pine is the much more economically valuable white pine. Pitch pines are not as straight, have rougher bark, and have three 3 needles per bunch; white pine has five.

Continue on along the north edge of the wetland. Soon, at WP 7, you'll come to a small group of hemlocks. Many of these evergreens in southern New England are in trouble due to a very tiny sap sucking insect called woolly adelgid . They exude a protective white substance, particularly on the undersides of twigs, that somewhat resembles cotton. They multiply quickly and in a few years kill their unlucky hosts. Check the lower branches of these and see if they are being attacked.

WENNERBERG CONSERVATION AND WILDLIFE AREA

(Nature of trail: level to very gentle grades, wooded, trail not cleared as of August '09, leisurely one hour forth and back)

These 17 acres given the town in 2000 by a developer were named in honor of the late Ebbe Wennerberg, one of five brothers who served in the armed forces in WWII. Ebbe fought against Germany in Europe. His house was just up Park Avenue between the street and a swamp he owned just beyond his back lawn. He called our conservation agent on several occasions in his last years with worries about impending development near that rich habitat for frogs, turtles, water snakes, birds, and mammals he so loved. The pastureland to the south, downstream from his swamp, was developed in 2000. The developer gave 14 acres of wetland and 3 acres of upland bordering it to the town for wildlife preservation. The Conservation Commission didn't have to look far for a name for this new conservation/open space land. Ebbe and his family attended a dedication ceremony at the site's new sign in 2005. He died a few months later. The overflow from his swamp runs down through wetlands in the development to the Wennerberg area's rich wildlife habitat of ponds, scrub-shrub swamp, red maple swamp, and mixed pine and hardwood forest. We wish Ebbe had lived to walk the proposed new trail.

Before proceeding on our trail, stand at the Wennerberg sign and look south and east at the manmade farm ponds, now habitat and stopping places for many animals.

The first driveway just to the west, to the right as you face the sign, has a walking easement to dry parts of town land. Walk south on it about 200-feet until you see a sign announcing our trail off to the left. Take this trail; do not proceed on the driveway beyond it. When this path was laid out in 2009 there was a thick under story of young white pines at the start that had been growing very slowly in shade. If the tall canopy trees were cut the resulting light would "release" them to rapidly grow and become a new canopy. Since crowded, their growth would be straight upward to form fine logs due to the competition for light. As you proceed beware that the land nearby to your right, northerly, is private land. Please don't explore in that direction. You are welcome to roam off the trail on town land to your left, both east and south. The wetland to your east, south and later west is a large red maple swamp, the floodplain of Punchards Brook. Almost all the land east of Boston Street and south of South Main Street, route 114, is in the Punchards Brook watershed, which drains easterly under River Street near the entrance to Natsue Way, the road to the Town's Transfer Station, thence to the river.

A couple hundred feet after leaving the driveway you'll encounter a path on an old causeway leading off to the left, east. Take it for a good view of the scrub-shrub swamp with manmade ponds to the north near whence you came. Imagine this area as it was not too long ago without many trees. In 1998 cows were still grazing on the land now covered with large houses, lawns, and asphalt. The ponds were dug for cattle watering and irrigation. Now they are frequented by birds and numerous other animals. Soon you'll come to a large concrete culvert that passes underneath the old causeway allowing the overflow water from Ebbe's swamp to run to Punchards Brook. Continue to the barb-wired fence that encircles Richardson Farms' large pasture. Note the magnificent line of oaks along the pasture's edge.

Turn south and descend down stream. Look for more dams. Soon after WP 14 you'll again be on the main east-west rail. Turn west on it and climb. After a couple hundred yards you'll see a trail off to the north. This is an interesting side trip not mapped here that will take you to the site of a hot 2007 spring fire that swept east from a pasture along Pond Meadow Brook through 200 acres and was stopped by the water in the beaver impoundment above WP 13. If you explore note how different the forest is there.

Back on the main trail at WP 15 find the four large-red oaks in a cluster just off the north side of the trail. They are from sprouts that grew from a parent tree probably cut about 60 years ago. What was the approximate diameter of the parent tree? Estimate how far back in history, from the time of the parent tree's cutting and sprouting, you have gone?

Continue west on the trail and then descend south until you are back on Cudhea's driveway. Go with the Pond Meadow Brook flow, but on the road, until you are back at Mundy Bridge.

Trail Notes:

The Benefits and Facts of Physical Activity

Are you not sure about starting a physical activity like walking? Are you afraid of hurting yourself? The good news is that a brisk walk is generally safe for everyone. Start slow and work your way up to increasing your level of activity. You can put your self at risk if you get very little physical activity, especially when you go out and shovel heavy wet snow. If you have a chronic health condition talk with your doctor and find out your condition limits. The bottom line is the health benefits of physical activity far out weigh the risks of getting hurt.

Exercise is essential for wellness and especially helpful in losing or managing weight. The U.S. Centers for Disease Control and Prevention recommends that healthy adults get the following:

At least 2 hours and 30 minutes (150 minutes) of moderate-intensity aerobic activity (e.g. brisk walking) every week, or

At least 1 hour and 15 minutes (75 minutes) of vigorous-intensity aerobic activity (e.g. jogging or running) every week and

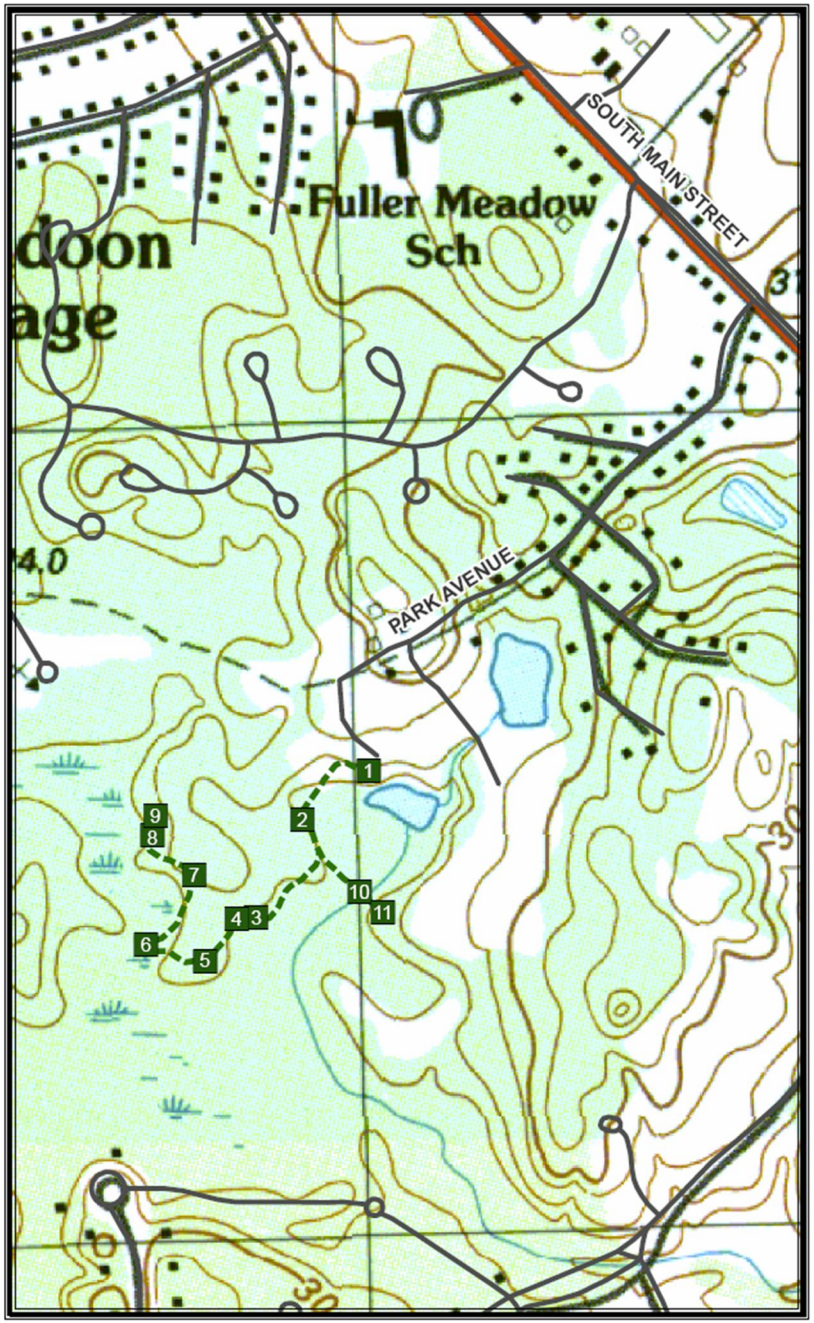
Muscle strengthening activities (e.g. push-ups or weight lifting) on two or more days a week that work all major muscle groups (legs, hips, back, abdomen, chest, shoulders, arms).

Walking or hiking (use this trail book for example!) is the one exercise that almost anyone can do, regardless of age or level of physical fitness. Everyone has something to gain from a 30-minute brisk walk enjoyed most days of the week:

- Increased cardiovascular fitness
- Reduced stress
- Increased energy
- Improved sleep and eating habits
- Lowered risk of osteoporosis, obesity, heart attack and stroke

Target Heart Rate Chart

AGE	BEGINNER 60% - 70%	
	Beats/min	Beats/10 sec *
to 19	121 - 141	20 - 24
20 - 24	119 - 139	20 - 23
25 - 29	116 - 135	19 - 23
30 - 34	113 - 132	19 - 22
35 - 39	110 - 128	18 - 21
40 - 44	107 - 125	18 - 21
45 - 49	104 - 121	17 - 20
50 - 54	101 - 118	17 - 20
55 - 59	98 - 114	16 - 19
60 - 64	95 - 111	16 - 19
65 - 69	92 - 107	15 - 18
70 - 74	89 - 104	15 - 17
75 - 79	86 - 100	14 - 17
80 - 84	83 - 97	14 - 16
85 +	81 - 95	14 - 16



WAY POINTS
WENNERBERG CONSERVATION AND WILDLIFE AREA TRAIL
(Approx Length = 1/2 Mile / Relatively Flat)

1 Wennerberg sign on Park Avenue end turn-around fence

2 Turn to left (southeast) off driveway of 61 Park Avenue

3 Mixed hardwoods and pine near wetland edge

4 Grove of large white pines, red maple clump of 5 mature trees

5 Princess pines ground cover in white pine grove

6 Punchards Brook bank, mature pitch pine just to southeast

7 Small grove of hemlocks

8 Nearing end of town land near stone wall

9 End near Blais farm's cyclone fence, pasture beyond

10 30" culvert under causeway across wetland

11 End at Richardson Farms pasture fence, large oaks along edge of field

TARGET HEART RATE CHART

INTERMEDIATE 70% - 80%		ADVANCED 80% - 90%	
Beats/min	Beats/10 sec *	Beats/min	Beats/10 sec *
141 - 161	24 - 27	161 - 181	27 - 30
139 - 158	23 - 26	158 - 178	26 - 30
135 - 154	23 - 26	154 - 174	26 - 29
132 - 150	22 - 25	150 - 169	25 - 28
128 - 146	21 - 24	146 - 165	24 - 28
125 - 142	21 - 24	142 - 160	24 - 27
121 - 138	20 - 23	138 - 156	23 - 26
118 - 134	20 - 22	134 - 151	22 - 25
114 - 130	19 - 22	130 - 147	22 - 25
111 - 126	19 - 21	126 - 142	21 - 24
107 - 122	18 - 20	122 - 138	20 - 23
104 - 118	17 - 20	118 - 133	20 - 22
100 - 114	17 - 19	114 - 129	19 - 22
97 - 110	16 - 18	110 - 124	18 - 21
95 - 108	16 - 18	108 - 122	18 - 20

Number of calories burned in 10 minutes

Exercise/Activity	Your Weight (lbs)		
	120-130	160-170	190-200
Walking 2 mph (30 minutes per mile)	30	40	45
Walking 3 mph (20 minutes per mile)	40	50	60
Walking 4 mph (15 minutes per mile)	55	70	85
Aerobic dance	60 to 105	75 to 140	90 to 165
Bicycling (outdoors)	40 to 145	50 to 195	60 to 230
Bicycling (indoor stationary)	25 to 145	30 to 195	40 to 230
Calisthenics	40 to 105	50 to 140	60 to 165
Dancing	30 to 80	40 to 150	45 to 120
Jogging 5 mph (12 minutes per mile)	90	115	135
Jogging 6 mph (10 minutes per mile)	105	140	165
Skiing (cross country)	60 to 145	75 to 195	90 to 230
Swimming	50 to 125	65 to 165	75 to 200

WAY POINTS
ANNE'S LAND AND BOGS LOOP
(Approx length = 2.1 miles / Slight Incline)

1 Start. 56 North Liberty Street driveway entrance

2 Rocky swale taking Anne's Bog overflow easterly to Pond Meadow Brook

3 Turn west climbing toward Greenbelt acres, look left for glacial erratic boulder

4 Ledge high point overlooking 13-acre bog to south

5 Mini-valley with axis northwest to southeast probably gouged by glacier

6 Ruins, side by side cellar holes, of farmhouse circa early 18th century

7 Rough trail from cellar holes and Greenbelt 30-acres

8 Bog overlook from west edge of six-acre bog

9 Bog overlook from ledge north side of six-acre bog

10 Turn to south on ancient section of North Liberty Street

11 BOG sign just before Anne Cote's house, turn west off driveway

12 Anne's Bog overlook

Heart Attack Warning Signs

Some heart attacks are sudden and intense — the "movie heart attack," where no one doubts what's happening. But most heart attacks start slowly, with mild pain or discomfort. Often people affected aren't sure what's wrong and wait too long before getting help. Here are signs that can mean a heart attack is happening:
Chest discomfort. Most heart attacks involve discomfort in the center of the chest that lasts more than a few minutes, or that goes away and comes back. It can feel like uncomfortable pressure, squeezing, fullness or pain.
Discomfort in other areas of the upper body. Symptoms can include pain or discomfort in one or both arms, the back, neck, jaw or stomach.
Shortness of breath with or without chest discomfort.
Other signs may include breaking out in a cold sweat, nausea or lightheadedness

Stroke Warning Signs
If you or someone with you has one or more of these signs, don't delay!

Sudden numbness or weakness of the face, arm or leg, especially on one side of the body
Sudden confusion, trouble speaking or understanding
Sudden trouble seeing in one or both eyes
Sudden trouble walking, dizziness, loss of balance or coordination
Sudden, severe headache with no known cause

Cardiac arrest strikes immediately and without warning. Here are the signs:

Sudden loss of responsiveness (no response to tapping on shoulders).
No normal breathing (the victim does not take a normal breath when you tilt the head up and check for at least five seconds).
If these signs of cardiac arrest are present, tell someone to call 9-1-1 or your emergency response number and get an AED (if one is available) and you begin CPR immediately.

If you are alone with an adult who has these signs of cardiac arrest, call 9-1-1 and get an AED (if one is available) before you begin CPR.

Use an AED as soon as it arrives.

Dial 9-1-1 Fast
Heart attack and stroke are life-and-death emergencies — every second counts. If you see or have any of the listed symptoms, immediately call 9-1-1 or your emergency response number. Not all these signs occur in every heart attack or stroke. Sometimes they go away and return. If some occur, get help fast! Today heart attack and stroke victims can benefit from new medications and treatments unavailable to patients in years past. For example, clot-busting drugs can stop some heart attacks and strokes in progress, reducing disability and saving lives. But to be effective, these drugs must be given relatively quickly after heart attack or stroke symptoms first appear. So again, don't delay — get help right away!

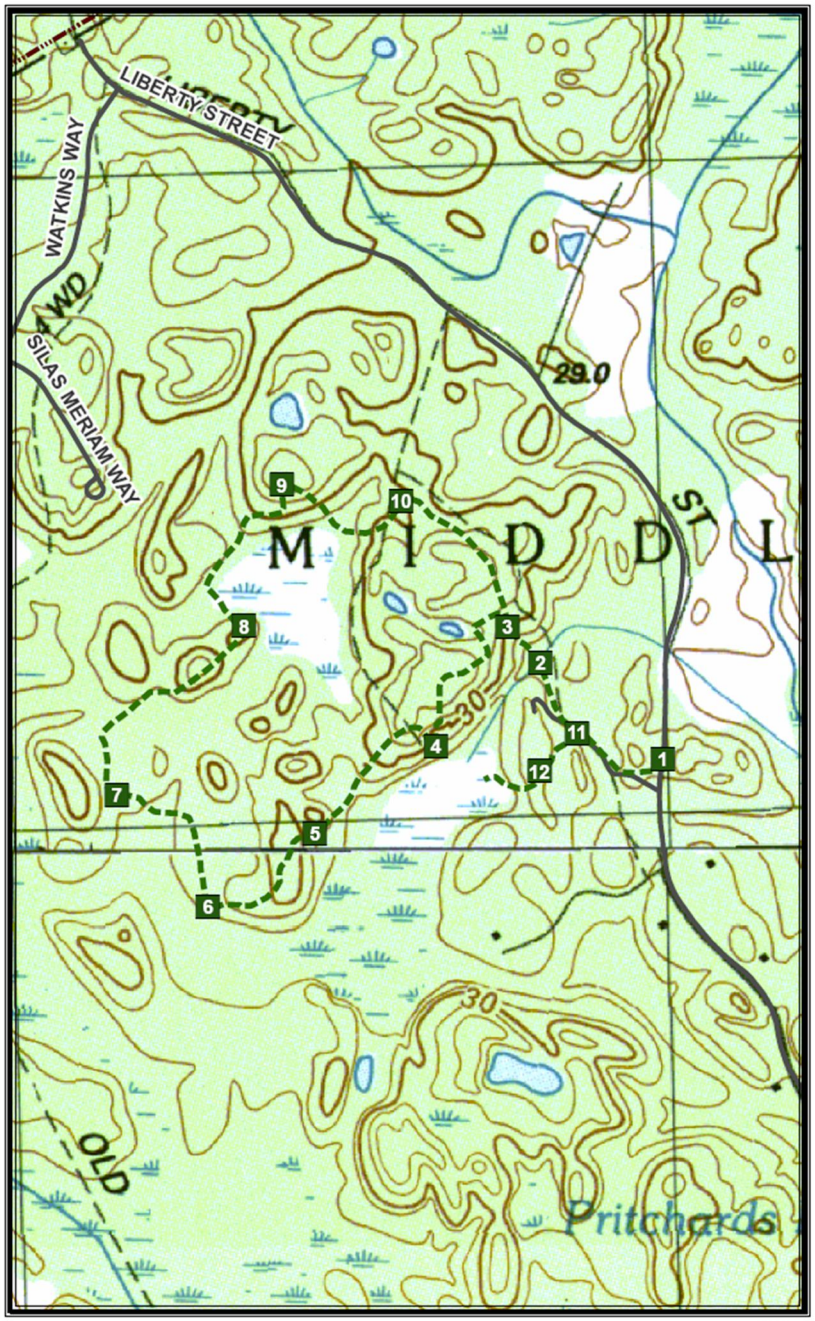
Statistics
Coronary heart disease is the No. 1 cause of death in the United States. Stroke is the No. 3 cause of death in the United States and a leading cause of serious disability. That's why it's so important to reduce your risk factors, know the warning signs, and know how to respond quickly and properly if warning signs occur.

Heart Health

Many different types of conditions such as coronary artery disease, heart attack, high blood pressure, valve disease, cardiomyopathy, and diabetes can cause heart disease. Some of these conditions are hereditary, but all can be controlled with life style changes and or medical intervention. It is important to be aware of the importance of maintaining a healthy heart. The quality and quantity of life depends on how you live your life. Educating yourself will help you make choices to improve how you live your life.

A healthy life style will be the first step in promoting a healthy heart. If you have not exercised and have an unhealthy heart you should see your doctor before starting any exercise program. Prior to exercise you should be eating a healthy diet, remembering to eat at least 5 or more fruits and vegetables a day. Try to eat fresh fruits and vegetables instead of processed. There is more salt in processed foods. When you decrease your sodium intake, this will help with controlling your blood pressure and decrease the fluid in your lungs.

Exercise is an important part of a healthy heart. Increasing your heart rate will get the blood flowing. Remember if there is any chest pain you should seek medical attention. Exercise will help you burn calories and help move fluid. Walking is a great exercise and it is free. You can modify your walking as you tolerate longer and faster walks. Remember you should never walk alone, plus it is more fun to walk with a friend.



ANNE'S LAND WITH ITS BOGS

(Nature of trail: wooded, up and down with moderate grades in sections, wet sections in season, leisurely two hours)

Anne's, as most land here north of Long Island, was last roughly sculpted by the Wisconsin glacier's half-mile or so thick ice here about 15,000 years ago. In its slow flow southeast out from what are now called the White Mountains it scraped, gouged, plucked, scratched, and smoothed; some geologist liken it to great belt sander, the plastic ice, as ice under 200-ft. of pressure is, carrying millions of tons of rock particles, sand to boulders, as its grit. When summer melts exceeded winter accumulations its front retreated leaving behind debris. On this walk stretch your imaginations and look for signs of its coming and going. Don't feel badly if this doesn't come easy, it wasn't until the last half of the 19th century that people, who had long puzzled at the signs, came up with the Theory of Continental Glaciation .

When the ice was gone, vegetation, and later people followed it up from the south. Recently charcoal from human fire pits in Truro, Nova Scotia, was carbon dated and found to be about 10,000 years old. The folks whom Old Worlders mistakenly called "Indians" lived relatively lightly on the land except for annual purposely-set fires. They were tough on large mammals, such as mastodons, giant beavers, mammoths, horses, camels; many of these quickly disappeared or moved north as did the caribou. When the English came four centuries ago they found large areas along our coasts from southern Maine on south were savannah-like with bushes, grasses, berries, scattered large trees, and agriculture. The new foreign farmers and their hoofed livestock quickly changed the landscape. Over grazing led to erosion that exposed boulders formerly covered by thin soils. Look for these boulder fields as you walk through rougher areas. Much of the topsoil eroded to low lands below.

Anne's Land's terrain is glacier formed country with its high ledges and low bogs of thick watery muck and bog vegetation. Bogs are not common in Essex County; the two here are some of the finest examples we know of in the area. These poorly drained places with no streams entering or leaving were once ponds that have filled in from the edges with vegetation. After thousands of years decaying plants mixed with sediment from runoff from the surrounding uplands have filled them in with a very rich organic soil commonly called muck. Underneath the surface layers, live bog plants on dead ancestors, there is still a great deal of water. When relatively dry walk out on one and jump up and down and note the bog's spongy nature. Because of the massive amount of decaying vegetation and poor drainage the water of saturated bogs is low in dissolved oxygen and quite acidic. Water and the carbon dioxide of decomposition make carbonic acid. It and the low oxygen content just below the surface results in very slow decomposition by bacteria and fungi hence thick layers of muck high in organic matter. The same is true in swamps but not to the same degree. Such acid soils favor peat moss, cranberries, bog cotton, pitcher plants, sundews, and a half dozen other bog species. Pitcher plants and sundews catch insects, which they digest to obtain essential nitrates much needed in nitrogen poor bog waters.



Great Blue Heron over purple loosestrife along Ipswich River
Photo: Derek Fullerton

Trail Notes:

Note the stream to the east up from the south just below you joining the river. It is Nichols Brook, named after John Nichols one the area's first English settlers. This brook originates in Danvers two-miles to the southeast. It is the Topsfield /Middleton line along much of it length. Its wide floodplain and rich wildlife habitat is what you looked down on from " Rubchinuk's Mountain". Deer, beavers, muskrats, mink, otters, herons, ducks, etc. are common here. A mile upstream human golfers at Ferncroft frequent its banks in season.

You are within a couple hundred feet of a large beech tree we call the "Old Woman of Walcott Island". She has a very distinctive face that developed before hair lips were easily corrected surgically. See if you can find her just to the southwest of the high point of Walcott Island you are standing on.

The upland you see to the southeast across Nichols Brook is also conservation/open space and can be accessed on the ice after long cold snaps (Be careful.) or on the silver maple forest floor in dry months. At such times you may proceed easterly and cross under I-95 bridge on a walkway hanging from its south abutment. (NEVER WALK ON IPSWICH RIVER ICE HERE OR ANYWHERE ELSE. SOME PORTIONS REMAIN UNFROZEN OR WITH THIN ICE EVEN AFTER LONG COLD SPELLS.) Look around you and guess how wide the river floodplain was here before I-95 was build in the 1950's. The highway abutments have reduced that width to about 70-ft. with very significant upriver affects at flood times.

Try this hike in late spring and summer when the beech leaves are out. The filtered light makes this grove a very special place. To return simply retrace your steps or walk west bearing slightly north until you see the river. If you have time we recommend you walk out to East Street on Thunder Bridge Lane. Turn right (north) and visit the town swimming hole-beach at Thunder Bridge. Note the record flood elevation sign on the southeast bridge abutment.

Visit Peter Sacco's kiosk. Peter, from Topsfield , built seven kiosks along the river as for his Eagle Scout project.

Pick up a handful of peat moss. Dunk it in water and then squeeze. Many times its weight in water will pour fourth because of the many large dead water storage cells it has. On the terrible battlefields of WWI peat moss, absorbent and antiseptic, was used on wounds when cotton bandages were in short supply. We are all familiar with its use as mulch. In time the lower layers are compacted and become the solid peat that was burned here in the 19th century when wood was scarce. It is still mined in Ireland. Peat or more correctly Sphagnum is a dominant plant in bogs, cold-acid swamps, and tundra.

We could go on about bog plants and their strangeness compared with plants in the uplands. We urge you to visit Anne's in different seasons. Middleton's Anne Cote, stalwart in town affairs, sold 30-acres of her 45 to the Essex County Greenbelt in 2006 at a bargain price for use as open space/conservation land. It is best entered by her driveway at 56 North Liberty Street. Park on the shoulder of North Liberty and walk up the drive. After a few hundred feet you'll see a sign BOG on your left. Follow the path in to its end for a view of the bog from the south. For a look at the bog from the north and a longer walk continue up the drive below Anne's house and bear right off it between the stonewalls that once flanked original North Liberty Street, in Colonial times a main road to Andover. Continue on past a wet boulder field that is an overflow swale down from the bog. Just past it look closely and you'll see a path off to the west (WP 3). Go west on this path passing among about 40 to 50-year old oaks until you are on high ledge (WP 4) overlooking the 13-acre bog to the south. Judging by the upland oaks, all with single trunks, and the rusting barbed wire on rotting posts along bordering stonewalls much of the area was rough pasture just a half century ago.

As you proceed on to the southwest note the occasional small U-shaped valleys crossed that descend NW to SE, the direction the glacial ice moved. Their curved slopes on a very small scale resemble those of Franconia and Crawford Notches and thousands of other glacier carved valleys throughout the world. Between WP 5 and WP 6 see if you can find a huge boulder, an erratic, perched on high ledge. It was left here by the melting ice. It may have been carried by it for some distance from the northwest. Note its underpinnings.

In your westerly wandering you'll soon come upon a stonewall. Step over or walk along it for a bit until you come to a gap called a "bar way". There were wooden bars across this once cart path to keep livestock from passing through. Look for a double cellar hole among the trees (WP 6). We guess it was a farmhouse there centuries ago. Why the narrow unexcavated part between? It may have been the foundation of a chimney. To the north try to find what we think is part of the foundation of a south-facing barn. The cows were on the first floor; their manure was hauled out from the cellar underneath to the south and hay up the back ramp into the lofts around and above the cows. We haven't yet found out who farmed there. Any cultivated land would have been the flat area without ledge to the west that blends in with the Boston Brook floodplain. Again imagine the whole area without trees except for a few spared "pasture oaks" that provided shade for the cows. Look for such large spreading trees.

Now you must decide if you want to continue on bushwhacking for a bit or return from whence you came. If the latter we suggest you walk back just north of the path you came in on to view the large vernal pools along the northern stonewall bound.

Or if you'd like to see another bog bushwhack northwest through the woods for a couple hundred yards until you encounter a well used trail (WP 7). (After crossing the wall you are on Richardson Farms' land.) Take a right (northeast) on it and continue until you see another open bog, about six-acres, to the east. Its waist high herbaceous sedges and grasses hide pitcher plants and cranberries. Deer bed down here in dry seasons. If you don't mind wading try to walk out on it. Jump up and down.

The trail continues to a high overlook of the bog (WP 9). Descend to the east on the trail. You'll soon encounter a not very clearly seen path off to the right. You are back on ancient North Liberty Street heading south. Imagine cattle drives down between the walls. Keep an eye to the west for the high junction of stonewalls marking the corner of Anne's land. You'll soon be retracing your steps. Back on Anne's driveway take the trail marked BOG if you already haven't and view the bog from the south.

TRAIL NOTES:

Look to the south-southeast and you'll see the MIT accelerator lab buildings and the Essex County Jail's communication tower to its right on Bare Hill, which is bare no longer. These hills were pastures a century or so ago, largely devoid of trees. Try to imagine most of the land, upland and low, in view without trees. That would have been the scene up until the Civil War. Even in the early 20th century half the land in Essex County was still without trees.

If winter and you have skis or sled you might linger for a while. Otherwise proceed down hill on the path curling to the northwest. At the base turn east by the detention pond. These ponds were built so sediment in runoff will not flow directly into wetlands. Just east of the detention pond is a rectangular pond 650-feet long, 100-feet wide. We were told that glass making quality sand was found here when the pond was dug in the latter half of last century. The late Peter Rubchinuk, land owner and pond excavator, built a houseboat and floated it here. The boat is long gone; now there are beaver lodges on the pond's banks. Many other wildlife frequent this pond and surrounds.

Continue on north on the woodland path until you arrive at Harts' driveway at the end of Thunder Bridge Lane. Cross the drive and enter the woods on its north side. Bear slightly to the right on the path and you'll soon encounter a stonewall.

Welcome to the conservation/open space land acquired by the town in 2007 that we have dubbed Walcott Island. The rises that are a part of this riverside 28-acres, Walcott Island on the map, are completely surrounded by several feet of water during floods, hence the name. Here, at WP 6, the "Little Wood Lot", partly surrounded by a collapsed sheet metal wall built Peter Rubchinuk, abuts Walcott Island land. Proceed north toward the river on upland; there is a red maple swamp to your right. The high ledge to the west is state land. The large light gray beauties shading you are American beeches used in days past by farmers for wagon beds because of it tough hard wood. Many of the beeches seen arose from the roots of parent trees. They are clones. Beechnuts are much prized by animals and birds thus humans rarely get a chance to try them. At the corner of "The Great Wall of Peter", WP 7, turn east. You'll soon encounter a swale that may prevent further dry passage in some months when the river is high. At this writing there is a fallen tree you can cross on. You are now in a silver maple, red maple swamp of the Ipswich River floodplain. The river is just to your north flowing east. Across it is Boxford. Note the shallow roots of fallen trees that have been upturned by wind and ice. There is always plenty of water on or near the surface here hence shallow root growth. Do you notice some of the large trees growing in clusters of two to five? When their parents were cut a half-century of so ago new shoots grew from the stumps. Most died, the trees you see are survivors, the parent stump long ago rotted. Find the cluster of five red oaks at WP 8. Here are a couple questions for you. What was the diameter of the parent tree? Look carefully and guess its age relative to that of the 50-year old offspring. When in our history did the parent sprout from an acorn or grandparent stump?

Bear a little southeast to stay clear of river water. There are no trails here as you may have already noticed. The river will keep you from going north and wet swamp from going south. Ascend the gentle rises that make up the two knolls that are Walcott Island on a zigzag path of your own choosing. Admire the fine groves of mature mixed hardwoods. Meander easterly until you reach the highest point, WP 9. Look around.

PEABODY STREET LANDING TO WALCOTT ISLAND

(Nature of trail: fourth-mile on paved road, optional portion high and fairly steep, good views, most flat or gentle grades, a couple crossings wet in season, section without clear trail, leisurely one and one half hours round trip.

This trail is largely in the Ipswich River floodplain. Every five or ten years you would have to wade through waist deep to walk it. We recommend you start at the Middleton Stream Team's Peabody Street Landing on the river (or go directly to the parking lot between the athletic fields off East Street. See WP 1.) An Ipswich River map in the kiosk at the landing will orient you on this great curve in the river as it turns northeasterly and then east. Note the photograph there of the March 2001 flood when the water was knee deep where you are standing. The Mothers Day flood of 2006 exceeded it by one-inch and set a record since data collection began in 1938. The periodic highs that flood East and Peabody Streets have been increasing in elevation over the years since 1938. Walk down to the river's edge and sit on the fine stones artfully arranged there for the town by resident-contractor Vito Mortalo. Leon Rubchinuk provided the cut granite bench.

When ready, walk east along Peabody Street by the fields still being cultivated. They may have been cultivated by the Algonquian speaking " Agawams " as early as three thousand years ago when native agriculture is estimated by some to have started here. Their artifacts are still being found in these rich alluvial floodplain soils. This is the kind of land the natives raised corn, beans, and squash on. In recent years Richardson Farms has had corn over ten feet high growing in these fields. Soon you'll come to the end of Peabody Street where it joins East Street. Continue straight across toward the large tree-less hill that former owner Peter Rubchinuk called his "Farm Elevation Project". It is a landfill, some locals have dubbed "Rubchinuk Mountain", ordered capped by the state in the 1990's. About 400,000 cubic yards of fill from Boston's "Big Dig" were brought here, which raised its elevation about 60-feet. The fill consists of significant amounts of blue-green glacial marine clay. Colonial Boston cobblestones and large oyster shells were found in it. Blanketing the entire hill is a foot of grass and weed covered loam underlain with a plastic membrane over the clay. The plastic and clay act as an umbrella to prevent water leaching down through the debris, largely from the cleanups of several city fires. In 2008 the town took ownership from a State appointed receiver. You might have started this hike here. See WP 1.

Continue straight up the hill. If you want to avoid the climb turn northeast toward WP 3. The terrace like structures curling around the slopes direct runoff to large detention ponds to the north and southwest of the hill. From the summit imagine a future flood like those mentioned above. In all directions you would see Ipswich River water covering the low lands. The traffic on I-95 to the east would appear to be on a causeway above a vast lake. This open area, mowed once each year after nesting season to prevent tree growth, is one of our favorite places to see wildlife. Hawks, foxes, fishers and coyotes hunt here. We recommend you visit at dawn or twilight to see animals. It is also one of the best places in town to view sunrises and sunsets. The drumlin in the distance to the northwest is Bald Hill in Boxford. That further to the west is Boston Hill, also a drumlin, in North Andover.

FLU FACTS & INFORMATION

What is the difference between a cold and the flu?

The flu and the common cold are both respiratory illnesses but they are caused by different viruses. In general, the flu is worse than the common cold, and symptoms such as fever, body aches, extreme tiredness and dry cough are more common and intense with the flu. Colds tend to develop gradually, while the flu tends to start very suddenly. People with colds are more likely to have a runny or stuffy nose.

Important Differences Between Colds and the Flu

WITH A COLD:	WITH THE FLU:
You almost never have a fever.	You have a fever of 100 F* or greater
You feel stuffiness in your head.	Coughing and/or sore throat, runny nose
	Your entire body feels sick, body aches, fatigue
You feel a little sick.	You feel very sick, chills, runny/stuffy nose
You can have a cold any time of year	Seasonal flu starts in early winter and continuing through early spring. Flu pandemics happen every 30 years or so, and don't have a particular season.
There is no vaccine to protect you.	You can get a vaccinated to protect yourself.
There are no prescription medicines to treat colds.	There are prescription medications to treat the flu.

· Get seasonal flu vaccine every year especially if you have a medical condition which makes health complications from the flu more likely.
· Wash your hands often with soap and water, or use an alcohol-based hand gel.
· Cough or sneeze into a tissue or into the inside of your elbow if you don't have a tissue. Throw tissues away and wash your hands. Always wash your hands before touching your eyes, nose or mouth.
· Use a regular household cleaner to clean things that are touched often, like door knobs, toys, phones and faucets.
· Avoid close physical contact with people who are sick. Try to stay at least 3-6 feet from someone who is sick with the flu.
· People with young children, a weak immune system or a chronic illness should avoid large crowds, if possible.
· Stay home from work and school if you get sick with a flu-like illness and avoid contact with others so the virus does not spread. Stay at home until you have been free from fever for at least 24 hours after your last dose of fever-reducing medication (like Tylenol, Advil or Motrin). For most people this will mean staying at home for about 4 days.

For more information visit: www.mass.gov /flu or www.flu.gov

**Fever defined for flu by the Massachusetts Department of Health and CDC.*

Tick-borne Diseases

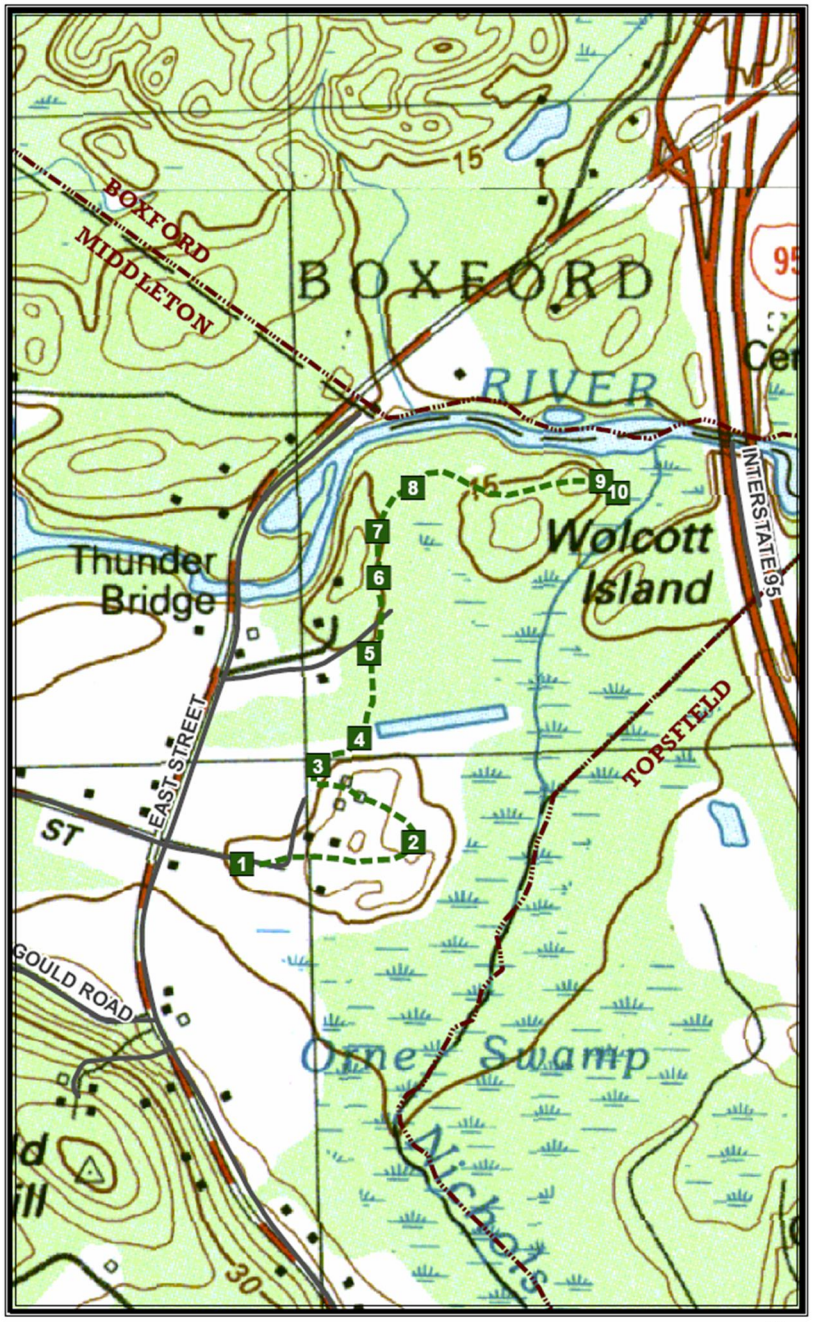
There are many different types of tick-borne diseases. The most common in the Northeast are Lyme, Anaplasmosis , Ehrlichiosis , Rocky Mountain Spotted Fever, Southern Tick-Associated Rash Illness(STARI), and Babesiosis .

To prevent and control the spread of disease by ticks you should spray clothing with DEET.

Limiting exposure to ticks reduces the likelihood of infection with tickborne diseases. In persons exposed to tick-infested habitats, prompt careful inspection and removal of crawling or attached ticks is an important method of preventing disease. It may take extended attachment time before organisms are transmitted from the tick to the host.

It is unreasonable to assume that a person can completely eliminate activities that may result in tick exposure. Therefore take the following precautions to protect yourself when exposed to natural areas where ticks are present:

- Wear light-colored clothing which allows you to see ticks that are crawling on your clothing. Tuck your pants legs into your socks so that ticks cannot crawl up the inside of your pants legs.
- Apply repellents to discourage tick attachment. Repellents containing permethrin can be sprayed on boots and clothing, and will last for several days. Repellents containing DEET (n, n-diethyl- m-toluamide) can be applied to the skin, but will last only a few hours before reapplication is necessary. Use DEET with caution on children.
- Conduct a body check upon return from potentially tick-infested areas by searching your entire body for ticks. Use a hand-held or full-length mirror to view all parts of your body. Remove any tick you find on your body.



WAY POINTS
RUBCHINUK HILL TO WALCOTT ISLAND
(Approx Length = 1 mile / Moderate Incline)

1 Soccer field parking lot below capped landfill

2 Summit of " Rubchinuk Hill", a landfill capped in 2000

3 Foot of hill, northwest, near detention pond

4 West end of "Peters Pond"

5 Harts' driveway at end of Thunder Bridge Lane

6 Boundary line between Littlewood lot and Town's Walcott Island lot

7 Corner "Great Wall of Peter"

8 Five red oaks from one

9 Summit of Walcott Island just west of Nichols Brook

10 Old Woman of Walcott Island (a beech tree)

Check children for ticks, especially in the hair, when returning from potentially tick-infested areas. Ticks may also be carried into the household on clothing and pets and only attach later, so both should be examined carefully to exclude ticks.

Symptoms of tick-borne diseases my be very difficult to diagnosis in the early stages, even by experienced physicians who are familiar with the diseases. The early clinical presentations of TBRD may resemble nonspecific signs and symptoms of various other infectious and non-infectious diseases. The majority of patients with TBRD visit a physician during the first 2--4 days of illness, after an incubation period of approximately 5--10 days after a tick bite. (Although patients with anaplasmosis might seek medical care later (4-8 days after fever onset).

Initial symptoms generally include fever, chills, severe headache, malaise, and muscle aches. Diarrhea might occasionally occur. Sensitivity to light might be observed in adult patients.

Appropriate antibiotic treatment should be initiated immediately when there is a suspicion of a tickborne disease on the basis of clinical and epidemiologic findings. Treatment should not be delayed until laboratory confirmation is obtained.

source: www.CDC.org

NOTES:

WAY POINTS
PEABODY STREET LANDING TO BALD HILL VIA THOMAS ROAD
(Approx Length = 2.2 miles / Moderate to Strong Incline)

Picnic table symbol - Start. Middleton Stream Team landing, Ipswich River

2 Junction of Thomas Road and Peabody Street, also a driveway entrance

3 Borrow on left (west) just after entrance off Peabody Street

4 Old cemetery , Symonds' families and others

5 Wissa house, formerly home of Henry Sawyer

6 & 7 Log yard circa 1997

8 Intermittent stream crossing

9 Path leading east to Wunnegen, BTA/BOLT land off Crooked Pond Rd., Boxford

10 Hemlock grove

11 Trail west to Mill Street, see Peabody Street, Mill Street, Thomas Road loop trail

12 Monument just to southeast of Thomas Road marking Boxford/Middleton line

13 Trail to east leading to BTA/BOLT's Wunnegen land

14 Stone wall, Boxford State Forest bound

15 Russell family cemetery, three gravestones within stonewall closure

16 Trail to east leading to Crooked Pond and then Middleton Road, Boxford

17 Chimney of summer home burned in mid-20th century

18 Just west of chimney are Russell-Hooper farm home foundations

19 Trail descending southeast to Crooked Pond and Middleton Road, Boxford

20 Near summit of Bald Hill, a classic shaped drumlin

21 Main trail between Sharpners Pond Road, North Andover, and Thomas Road

Environmental Protection Agency (EPA) recommends the following precautions when using insect repellents:

- Apply repellents only to exposed skin and/or clothing (as directed on the product label.) Do not use repellents under clothing.
- Never use repellents over cuts, wounds or irritated skin.
- Do not apply to eyes or mouth, and apply sparingly around ears. When using sprays, do not spray directly on face-spray on hands first and then apply to face.
- Do not allow children to handle the product. When using on children, apply to your own hands first and then put it on the child. You may not want to apply to children's hands.
- Use just enough repellent to cover exposed skin and/or clothing. Heavy application and saturation are generally unnecessary for effectiveness. If biting insects do not respond to a thin film of repellent, then apply a bit more.
- After returning indoors, wash treated skin with soap and water or bathe. This is particularly important when repellents are used repeatedly in a day or on consecutive days. Also, wash treated clothing before wearing it again. (This precaution may vary with different repellents-check the product label.)
- If you or your child get a rash or other bad reaction from an insect repellent, stop using the repellent, wash the repellent off with mild soap and water, and call a local poison control center for further guidance. If you go to a doctor because of the repellent, take the repellent with you to show the doctor.

See http:// www.epa.gov /pesticides/health/mosquitoes/ insectrp.htm for additional information on using EPA-registered repellents.

WEST NILE VIRUS AND EASTERN EQUINE ENCEPHALITIS

Insect Repellents

West Nile virus is spread by infected mosquitoes, and can cause serious, life-altering and even fatal disease.

WNV and EEE are spread by the bite of an infected mosquito. Mosquitoes become infected when they feed on infected birds. Infected mosquitoes can then spread WNV and EEE to humans and other animals they bite.

Repellents are an important tool to assist people in protecting themselves from mosquito-borne diseases.

Approximately 80 percent of the people who are infected with WNV will not show any symptoms at all.

Up to 20 percent of the people who become infected have symptoms such as fever, headache, and body aches, nausea, vomiting, and sometimes swollen lymph glands or a skin rash on the chest, stomach and back. Symptoms can last for as short as a few days, though even healthy people have become sick for several weeks.

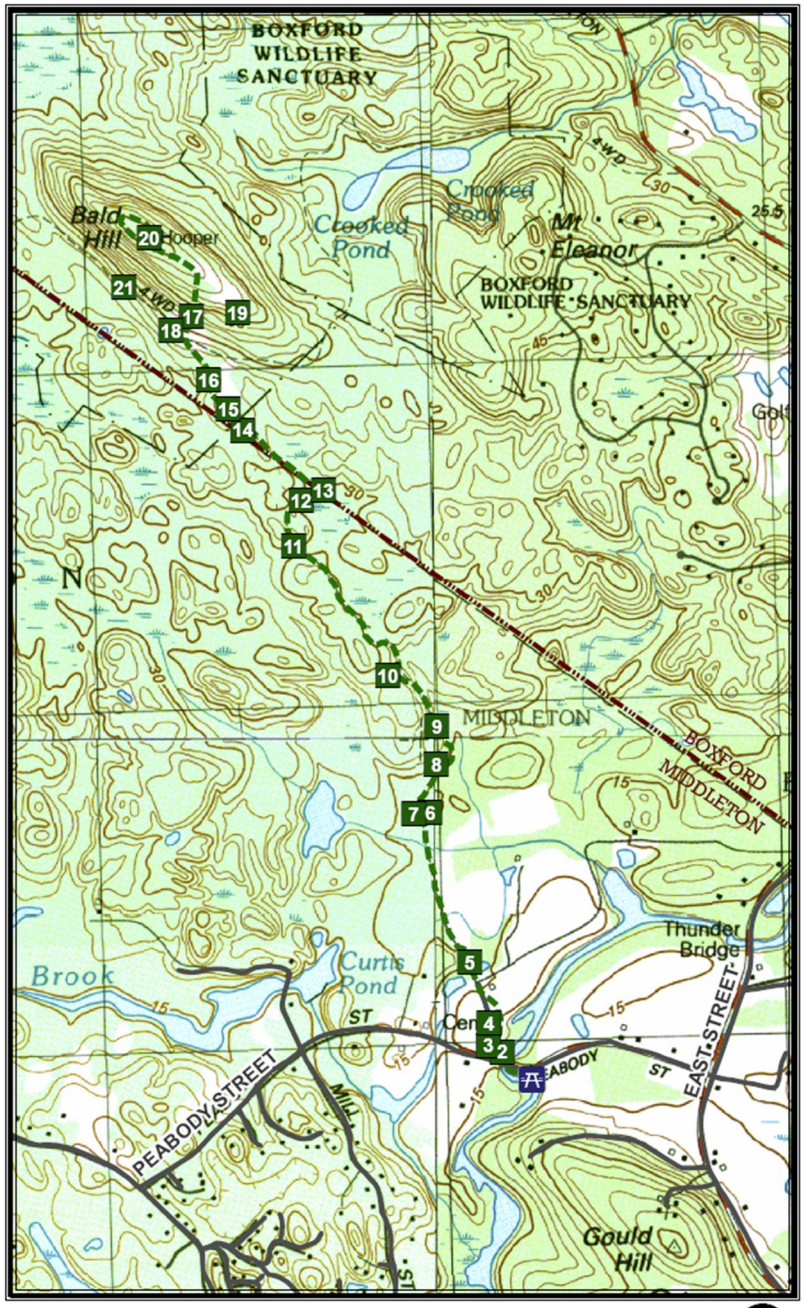
People infected with EEE have no apparent illness. In those persons who do develop illness, symptoms range from mild flu-like illness to encephalitis (inflammation of the brain), coma and death.

There are approximately 220 confirmed cases of EEE in the US 1964-2004, which averages out to 1.8 confirmed cases a year.

The easiest and best way to avoid WNV is to prevent mosquito bites.

- When you are outdoors, use insect repellent containing an EPA-registered active ingredient. Follow the directions on the package.
- Many mosquitoes are most active at dusk and dawn. Be sure to use insect repellent and wear long sleeves and pants at these times or consider staying indoors during these hours.
- Make sure you have good screens on your windows and doors to keep mosquitoes out.
- Get rid of mosquito breeding sites by emptying standing water from flowerpots, buckets and barrels. Change the water in pet dishes and replace the water in birdbaths weekly. Drill holes in tire swings so water drains out. Keep children's wading pools empty and on their sides when they aren't being used.

The best way to avoid EEE is to stay away from fresh water hardwood swamps because this the breeding areas of the mosquitoes infected with EEE. Currently there is a vaccine for horses but not one for humans.



PEABODY STREET LANDING TO BALD HILL

(Nature of trail: much wooded, gentle grades except for slopes of Bald Hill, short section without open path, two short crossings wet in season, leisurely two hour round trip)

This is a fine hike on an accepted Middleton street named Thomas Road, also Old Boxford Road on some deeds. There are no fast food joints along its whole two or so mile length. Hell, there isn't even pavement.

We recommend you park at Middleton Stream Team's mini-park/landing where Peabody Street crosses the Ipswich River. Look at the bulletin board photos and map and sit on the great stones artistically placed on the river's edge by Vito Mortalo.

In the fields here along the river many Indian artifacts have been found. They would certainly have raised the "Three Sisters", corn, beans, and squash, on the good bottomland, the floodplain, where Richardson Farms now periodically grows corn.

Proceed west over the bridge and then take a sharp right up the first driveway, actually Thomas Road. Ignore the No Trespassing sign. The road layout is 2-rods (33-ft.) wide. Beyond that on either side is private land all the way to Boxford State Forest. The road was accepted by the 1883 Town Meeting and never disbanded.

The venerable rows of sugar maples you pass under remind us of the live oak entrances to southern plantations. We bet they were tapped at one time. On your left just after entering Thomas Road look closely you'll see a "borrow" where gravel was borrowed to make the road nearby. Just beyond is presently unkempt Symonds' cemetery. The stones go back to the 18th century, some perhaps beyond. John Willard, victim of the 1692 witchcraft hysteria, in rumored to have been buried here. He had a farm not far to the west. Middleton was part of Salem then. We don't think he was buried here; his home before marriage was in Groton. There had been trouble with his in laws here. We wonder if his folks in Groton didn't retrieve his body. There is a stone commemorating this poor victim of the witchcraft trials next to the Historical Society on Pleasant Street.

Soon you'll see a horse barn on the right that is not far from where a large box factory operated 1872 to 1892. 40 men were out of jobs after it burned the day before Christmas in 1892.

The first house encountered was owned by the late printer Henry Sawyer, Middleton character, and one of three notables who founded the Essex County Greenbelt Association in 1962. He also organized the town's first conservation commission in 1962, a decade before the Wetlands Protection Act.

Note the large hardwood trees on either side as you proceed on through the woods between stonewalls that mark the road layout. Some may be over a century old.

The recent development, visible in the winter off through the woods to the left, is on Ross Road named after the late, much respected Middletonite, Ross Pope.

Not far to the east is Boxford. You'll pass a couple rough logging roads that would take you there if followed. See WP 17.

(The first major cleared path off to the left (west) you encounter will take you on another walk west, southwest, and then south to Mill Street. See WP 19. On arriving at Mill Street walk east and south to Peabody Street and then on east to the landing.

This is a popular loop trail that if added to the Thomas Road mile you've already walked is about three miles. Much of it is on protected Greenbelt and Middleton conservation/open space land. See trail called "Peabody Street, Mill Street, and Thomas Road Loop" for description and map.)



Symonds' & Bishops' Cemetery near junction of Peabody St. and Thomas Road



Remains of a house that burnt down at foot of Bald Hill



Survey Reference Disk, Summit of Bald Hill

At WP 16 there is path off to the east that leads to Wunnegen, BTA/BOLT conservation land, in Boxford. Visit BTA/BOLT's website for information.
WP 17 was the site of a log yard active in about 1998 when a Maine logger selectively cut in the area. Skidder trails, log yards, and cutting allowed in light and released formerly shaded trees. Note how quickly the saplings and bushes here have grown.

You are entering a rather low stretch of Thomas Road flanked by stonewalls and characterized by large old trees that once provided shade for travelers and for cows in the surrounding pastures.

The development on Ross Lane of large houses seen through the trees to the west was built 2003 to 2010.

The first house you encounter on Thomas Road was once that of the late printer Henry Sawyer famous as one three founders of the Essex County Greenbelt Association. He also formed Middleton's first conservation commission in 1962, a decade before the Wetlands Protection Act.

A large box factory, in the field several hundred feet to the east of WP 18, was operating from 1872 until it burned Christmas Eve 1892 leaving 42 men out of work. Just to the west of WP 19 is an ancient graveyard, resting place of Symonds and Bishops.

The magnificent rows of trees shading the road here are sugar maples that were probably tapped for sap in the past.

On paved Peabody Street cross the bridge to the town landing where you may have started. The Agawams cultivated the floodplain fields seen here. Many of their artifacts have been found in them. They grew corn, squash, and beans probably fertilized with alewives and shad that came up river in the spring in great numbers to spawn. The English who replaced them and later the Americans continued cultivate the river bottoms here. There was 12-ft. tall field cow corn being grown here in 2007 by Richardson Farms.

Periodically the fields are flooded. The highest since records have been kept was the great Mothers' Day flood of 2006. See the photo in Stream Teams kiosk at the landing showing the previous high in 2001. The road near the landing where you are standing was covered with two-feet of fast moving water.

Continue on north and you'll soon be in Boxford. Look for the granite monument to your right, east, marking the towns' bound. The land to the east is protected Boxford conservation/open space land.

A trail off to the right leads to Wunnegan an Algonquian word meaning "pleasant place". BTA/BOLT marks its trails and keeps them cleared. Google BTA/BOLT in Boxford and obtain information about their trails.

At the stonewall look for blue tags on trees labeled Boxford State Forest. You are entering it from the south.

Keep an eye out to the east (right going north) for a few gravestones on a rise enclosed by a stonewall where lie members of the Russell family. The Russells farmed this area in the 18th and 19th centuries. Rest a while and take time to read the gravestone inscriptions. (There is a riddle here. Can you solve it?) James Russell fought in the Revolutionary War.

Go back on the trail or continue on north. Waypoint 14 marks a trail to the east leading to Wunnegen.

Continue on to the large fieldstone chimney at the foot of Bald Hill. The house here burned in mid-twentieth century. The historic Hooper-Russell's farmstead cellar hole can be found just to the north of it. Look around and try to imagine when the whole area was pasture with few trees.

Find the trail nearby leading to the summit of Bald Hill, a classic drumlin, look at the map to see its oval shape, those axis is the direction of the Wisconsin continental glacier's movement from NW to SE. Geologists estimate the ice to have been a half-mile thick over much of Massachusetts. A series of continental glaciers deposited our drumlins.

On the summit you'll find a field. Walk NW on the trail until you come to Greenbelt land. Walk on carefully, making no disturbance, and see if you can find the USGS bronze medallion imbedded in a small stone that marks the summit.

Retrace your steps or leave the trail and descend SW to a main trail at the drumlin's base. On the way down look closely and see if you can see signs of the old horse/ox road going diagonally to the hilltop. Animals pulling loads couldn't climb the steep path you did.

At the trail turn left, it connects with Thomas Road. If you want more exercise continue west to Sharpners Pond Road in North Andover.

MIDDLETON CONSERVATION COMMISSION

For over 30 years Massachusetts has had a strong environmental law, the Wetlands Protection Act (WPA), which prevents harm being done to our wetlands. Wetlands, even portions of wetlands, cannot be legally filled or otherwise altered. Those small areas lost through exemptions must be replicated with new man-made wetlands.

Wetlands are defined in the Act as places where over 50% of the plants present are wetland species and that have hydric soils. Soils that are saturated over two weeks in the growing season have such plants and soils. Our swamps, marshes, wet meadows, bogs, streams, river, lakes, and ponds are wetlands.

Wetlands are protected because they: absorb water thus recharging the ground water; act as filters thus cleansing water; contain microorganisms and a myriad other larger organisms that take in pollutants, break them down to harmless usable compounds, and release them thus making them available; provide essential habitat for wildlife; are sources of drinking water; provide for flood storage.

It is the responsibility of the Town's Conservation Commission (CC), five townspeople appointed by the Selectmen, to administer the WPA. The Commissioners do so with some help from the State's Department of Environmental Protection (DEP). If a person wants to build, fill, excavate, install a septic system, pave, or do extensive tree cutting within 100 feet of any wetland he or she must file with the CC and with DEP. Contrary to the belief of many, the CC cannot deny permission if the work can be done without endangering nearby wetlands. If the applicant convinces the CC that no harm will be done to wetlands the CC will issue an Order of Conditions (a permit) that clearly specifies conditions that must be met to ensure harm is not done to wetlands during the work or after. In cases where a majority of the Commissioners are not convinced, they may vote to issue an order denying the work. The applicant may then appeal to the DEP.

The CC is also responsible for protecting "100-year" floodplains from any filling. 100-year floodplains are those areas that are flooded on a statistical average of once every 100 years (Areas that have a 1% chance each year of being flooded.). These areas are defined by the Federal Emergency Management Agency (FEMA) for each town in graphs and on maps. If a portion of floodplain is filled, floodwater will be displaced elsewhere where damage may be done. "Flood storage" is lost. Floodplain filled must be compensated. If the CC does allow a small portion to be filled a similar or greater volume of earth, nearby, outside the floodplain, must be removed to compensate.
There are two other valuable protections our wetlands and floodplains in Middleton have. These are: 1. Conservancy Districts administered jointly by the Zoning Board of Appeals (ZBA) and the CC. Many of these districts include even larger areas than those protected by the WPA. (See Zoning By-laws). 2. The Board of Health requires a 100 ft. setback for a new septic system from wetlands. State regulations require only 50 ft.

You are entering an interesting area of protected town land to the left and four large houses on the highlands to the right. In 1998 Joan Cudhea, Susan Collins, and Linda Labaree daughters of the late Charles Prichard sold 80-acres here to the town at the bargain price of $100,000 with the agreement that about 20 additional acres they owned would be developed, four 4 to 5 acre lots with a single house allowed on each. The 80 are now protected Town conservation/open space land, which stretch almost a half-mile north. After passing the forth-large house on the right you'll soon come to a trail leading north (WP 10).

Before proceeding up it walk a little further on Mill Street until you see an ancient saltbox set back on your right. This, the Wilkins-Smith house, is one of Middleton's oldest. The best estimate is that it was built in 1706. The original rafters are half logs that still have bark on them. The four rooms have been remarkably well preserved by a series of owners. Contractor David Lamprey restored the outside and roof in 2004. His family's house is the much larger one just above it. He owns both. Wilkinses, descendents of one of the very first English settlers in then Salem, lived here in Colonial times. John Willard a victim of the Salem witch trials, an in-law of Wilkins, farmed nearby.

Return to the woodland path passed and continue on north. Stay on the main trail going north. Soon you'll come to a fork, which leads to the Cudhea land. See our trail called " Prichard Pond to Cudhea's Crick Loop". Just to the east of the fork is a certified vernal pool. Walk in and take a look. In late March and early April wood frogs and salamanders will return there to mate. Return to the trail and bear right on it.

The next path off to the left, west, leads to an intermittent stream beavers took over in the early years of the millennium. They've built four dams in a fifth-mile of brook there that the Stream Team has dubbed Cudhea's Crick or Wilkins' Wallow. If you have time it is well worth a half-hour side trip to view their wonders. If you continue on north you'll soon find yourself forced off the trail because of flooding from their largest dam. The uppermost dam of the four just mentioned has flooded 70 or so acres of red maple swamp and a portion of the path for about 200-ft. Skirt the flooded area and proceed. Note the dead trees in the impounded area. Red maples like water but can't take too much year round. Other, more upland species, such as, oaks and white pine are drowning around the edges of the swamp. The absence of leaves lets the light pour in to produce a beaver meadow of diverse herbaceous water plants. These flooded areas become rich habitat for animals from frogs to herons, hundreds of animals, most small and not noticed. Many birds thrive among the dead trees.

The trail turns gradually eastward. Soon after crossing a swale, wading some months, you'll come to Thomas Road. (See "Peabody Street to Bald Hill via Thomas Road" map and description.)

Turn south on it and soon thereafter you'll be in a fine American hemlock grove. Check the underside of their twigs for woolly adelgid's white exudations made by this tiny insect devastating to hemlocks. It appears as a mildew-like substance that is secreted by these minute insects for their protection. We hope you don't find any. Infested trees, the juices sucked out of them, die in a few years. Infestations have been found a mile or so to the northeast in Boxford State Forest.

PEABODY STREET, MILL STREET, THOMAS ROAD LOOP

(Nature of trail: about a third on paved streets, historic, flat to moderate grades, two-thirds wooded, couple crossings wet in season, leisurely two hours)

You may start this walk from Mill Street (WP 10) or from the town landing on the Ipswich River and Peabody Street (WP 1). It overlaps a section of Thomas Road described in our "Peabody Street to Bald Hill via Thomas Road" walk. The following description is of a clockwise walk from the Peabody Street landing where there is off the road parking.

At the landing check the map on the Middleton Stream Team's information kiosk to see where you are in the Ipswich River Watershed. Proceed west on Peabody Street. Walk on the left side facing traffic on this now well-traveled road. The driveway to the right just over the bridge is Thomas Road an accepted town street. In a few minutes you'll encounter a huge white oak that some folks guess to be over 400 years old (WP 3). If so, it was a tiny tree when the English arrived at Naumkeag now Salem in 1626. As the centuries passed farmers obviously protected it from loggers and shipbuilders who lusted after this tough decay resistant species with great curved branches. The 17-ft. in circumference giant has two names, Curtis Oak after the Curtis brothers who farmed the area and lived in the fine house across the street, and Evans Oak after Warren Evans their hired man who out lived his employers by many years and who jealously protected the great tree shading his front yard. Note the one story building behind the new house there now. Warren and his famous horse teams lived there. This trail might well have been called Warren Evan's Loop in his memory; he and teams traveled it many times with loads of logs and later hayride merrymakers.

Soon you'll come to Boston Brook one of the Ipswich River's largest tributaries. Look upstream at the Curtis sawmill dam. The two brothers, very talented mechanically, build a sawmill and much of its machinery there in the 1930's. It was an active mill up until vandals torched the fine building in the 1960's. Mr. Evans and horse teams hauled logs from the woods to it on sled and wagon. Walk up the brook and admire some of the old machinery there still. Time and ice are doing in the dam. The now low millpond above it is Curtis Pond. Imagine it full to the top of an intact dam. When the water in the millpond is low you can see the stumps of the trees cut for the pond in the ' 30s.

Return to Peabody Street and continue on west. Turn north on Mill Street. Mill here refers not to the Curtis mill but one run by families of Peabodys in the 18th and 19th centuries. From the Boston Brook bridge look to the right down stream at the falling foundations of their sawmill. Can you figure out how it was set up? It had a large water wheel unlike the more modern turbine at the Curtis mill. In 1787 John and Thomas Peabody, sons of Nathaniel, heatedly argued while working in the mill building. Thomas in a fit of rage threw a crowbar at John and killed him. Neither the father nor the Commonwealth pressed charges. Look over the bridge just upstream and see if the beavers have a dam there. There have been substantial dams there in recent years forming large beaver ponds stretching to the west reminding us of the Peabody and Curtis millponds of long ago.

In August 1996 the Rivers Protection Act was enacted and signed into law. It protects "Riverfront Areas", those areas within 200 feet of the river's edge. Perennial streams, those that flow year round except during periods of expanded drought, are also considered as rivers and are thus protected. People must file a Notice of Intent for any work planned in Riverfront Areas. The amount of work allowed within them is restricted. It is the CC's responsibility to review their plans and to issue or deny orders (permits) as appropriate. In Middleton the Ipswich River as well as its tributaries (Punchards Brook, Middleton Brook, Emerson Brook, Boston Brook, and Nichols Brook) and portions of their branches have Riverfront Areas that come under the CC's jurisdiction.

The CC solicits and accepts gifts of land to the Town for conservation purposes. It also works closely with the Town's Open Space Committee in obtaining land. In 1998 an 80 acre parcel on the north end of Mill Street was purchased by the Town, the Essex County Greenbelt Association, and the New England Forestry Foundation working together. (In this booklet are other large areas that had been protected since.)

The Wetlands Protection Act and the River Protection Act alone provide strong protections for our 2500 - 3000 acres of invaluable wetlands. Tens of thousands of acres have been saved throughout the State by them.

The Commission meets on the first Tuesday of each month. Meetings start at 7:00 PM, If you would like to be on the agenda or if you have any questions or complaints concerning environmental issues please contact one of the Commissioners' agents at the above number.

Commissioners

Roger Talbot, Chairman
Michael Sliney
Ian McKenzie
Tom Skinner
Antonio Pesce

Agents

Derek Fullerton, Public Health Director / Conservation Administrator
Judith Schmitz, PWS, Conservation Agent
Pike Messenger, Conservation Agent retired as of July 2009 (Agent for 14 years)

Secretaries (Meeting Minutes)

Mary Jane Morin

WAY POINTS
PEABODY STREET, MILL STREET, AND THOMAS ROAD LOOP
(Approx Length = 3.4 miles / Moderate Incline)

1 Middleton Stream Team's Peabody Street/ Ipswich River Landing - Start

2 Peabody Street bridge over Ipswich River

3 Curtis Oak across from former Curtis brothers' house

4 Boston Brook bridge, Peabody Street

5 Curtis Mill dam, south edge Curtis Pond

6 Peabody Street/Mill Street

7 Graves of Nathaniel Peabody and wife (on right just off street)

8 Ruins of Peabody sawmill flanking Boston Brook and Curtis Pond

9 Wilkins/Smith house circa 1706

10 Trail entrance to Middleton open space conservation land off Mill Street

11 Side trail to west and eventually Joan Cudhea land
(vernal pool on right, couple hundred feet northeast)

12 Path to west that leads to Cudhea's Crick and beaver dams

13 Road flooded by large beaver impoundment

14 Junction with Thomas Road ("Old Boxford Road")

15 Hemlock grove

16 Path to east leads to Wunnegen conservation land in Boxford

17 Discarded skidder chain from 1998 logging operation, west edge of Thomas Road

18 Box Factory 1872 - 1892, to east several hundred feet

19 Old cemetery, Thomas Road

1 Back at start - Peabody Street landing

