

ATTLEBORO LAND TRUST NEWS



Newsletter produced by the Education and Outreach Committee and Attleboro High School

May 2019

>Welcome to the New Email Newsletter

This is the first in a series of monthly newsletters that will inform members and friends on what is and will be happening on the land. It will also include local conservation ideas, what is happening now and what was happening in 1719 (300 years ago) at the Barrows Farm, and some history of the Attleboro area. We will also cover what is happening at the Attleboro Community Garden and other Conservation properties.

This publication is being produced by the Education and Outreach Committee of the Attleboro Land Trust, local volunteers, and some of the classes at Attleboro High School.

What's Going on at the Land Trust

Plans are underway for the sand point well at Deborah's Garden on the Richardson Nature Preserve which will keep the native plantings and the Colonial "Three Sisters" garden watered during the dry season. Work has started on the garden for both the Colonial Garden as well as the native plantings.

The Attleboro Geocachers Alliance conducted a cleanup of the Larson Woodlands behind Willett School on April 20 for Earth Day.

The planned Kids Geocaching walk at Richardson had to be postponed due to the condition of the parking lot caused by the rains. It will be rescheduled when the parking lot is repaired.

Upcoming Events

**May 4 Ten Mile River
Cleanup 8:00 to 11:00**

**Meet at Riverbank
Road at the Garden**

**May 4 Keep North
Attleboro Beautiful –
Register Online**

**May 21 7:00PM at Oak
Knoll—Board of Direc-
tors Meeting**

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Spillway at Larson Woods



The Water We Drink

We tend to take the water we drink for granted. In Attleboro it comes from Orr's Pond, Manchester Reservoir or the wells in Mansfield. But there is much more to it than that.

From there the water goes to the treatment facility at Orrs Pond where it is screened and mixed with a coagulant (PAC), then to settling basins where the floc of suspended minerals settles out. It then goes to a filtration system of activated charcoal and sand. Once filtered it moves to the control building where it is mixed with sodium hydroxide to adjust the ph up to compensate for the acid rain which normally is between 5.2 and 5.6. Polyphosphate is then added to sequester metals and minimize corrosion of metal water lines in homes and businesses. Sodium hypochlorite is added to kill any pathogens and fluorosilicic acid is added for dental hygiene.

There is a need for undeveloped "open space" to provide the aquifer for the wells and the reservoirs. Undeveloped land acts as a natural filter for the rainwater without adding extra chemicals into the ground water or the streams that feed the reservoirs.

In our neighboring town of Rehoboth, the homes depend on individual wells. Each home has to have their own water treatment and do frequent tests of the water. The ph of the aquifer averages about 5.4 which will corrode away copper pipes if not treated. Rehoboth is a "Right to Farm" community so there are agricultural chemicals and contaminants that can get into the water.

The "Open Space" that the Land Trust, the Attleboro Conservation Commission, and the Mass Audubon Society preserves helps keep our water pure and minimizes the chemicals that must be added to our drinking water. Since most bottled water is just filtered tap water, that is really not an option if "Open Space" is not preserved.

What is happening at Colonial Barrows Farm In 1719

This is May and the growing season has started. In the "Three Seasons" plantings, the corn has sprouted. When the corn reaches six inches, one bean or pea seed will be planted just outside each corn stalk. When the beans reach one foot up the corn stalks, squash will be planted between the planted hills. This keeps weeds and animals away.

The fields are also being plowed and the rye, English hay and flax are being planted. To obtain the seeds for the flax, last years harvest is rippled. Then the stalks are soaked in the brook or pond for 8 to 14 days to get bacteria breaking down the outer husk and inner pith. The flax will later be processed into linen cloth in the home.

Now that it is warmer and there is more feed, the Milking Devon cattle will be having calves, the swine will be having piglets, the horses will be having colts, and the sheep will be having lambs. Rather than using all the eggs, more fowl will be allowed to hatch to expand the flocks. These young will expand the farm and also be helpful in bartering for goods.

Of course, the saw mill, coopery, and shingle mill will have to be tended to as this is also building season. Everyone from the 3 to 4 year olds on up will be very busy being productive helping on the farm.

The women will be busy with the kitchen garden, making soap, and providing food for the workers in the fields.

Since everyone is busy, school lessons will be minimized. And it is bathing weather!





Iron Used as Money in Colonial Times

Iron was so valuable in Colonial America that the local clergy received half of their wages in iron bars.

The locating, mining, and production was long and tedious so the costs were high. It also used up a lot of wood making the charcoal, resulting in the clearcutting of much land.

The bloomeries and forgeries would turn out square nail stock, flat hoop stock (for cask hoops), flat wheel stock (for the outside of wagon wheels), bar stock (for making hinges, latches, and other hardware) and large stock (for plows and other tools). These would be bought or bartered by the blacksmiths, cooper, wheelwrights, and any factories.

Bog Iron– Bloomeries

Bog iron was the first iron used to make tools and weapons. The iron is formed by the action of iron oxidizing bacteria in a bog area. The requirements are water with dissolved iron, an acid environment, an anaerobic environment for microorganisms feeding on decaying organic matter, proper temperature range, and another environment where there is exposure to a sufficient level of oxygen to oxidize the dissolved iron..

We have dissolved iron in this area as seen in the rust stains on sinks, toilets, and sides of houses near spigots. We also have the acid swamps (bogs), with decaying matter. The Richardson Nature Preserve property was once called the "Pine Swamp". The microorganisms feeding on the decaying organic matter (leaves, wood, pine needles, dead animals, etc.) obtain oxygen in the anaerobic zone by combining insoluble ferric oxide (rust) in the soil with water to form soluble ferrous hydroxide. The microorganisms also are producing acid which also dissolves the ferric oxide. Then the iron oxidizing bacteria, living in an area with some oxygen (aerobic), takes the dissolved ferrous hydroxide and combines it with the oxygen and converts it back to ferric oxide which it forms in combination with silicates into clumps. Sand is a silicate. It takes about 20 years to make pea sized clumps.

The colonists in this area would prospect and dig up these iron deposits from the bogs and process them into iron in bloomery furnaces. The cranberry bogs on Tremont Street were once bog iron mines. First, they would roast the bog iron on a wood fire. This would remove some of the silicates and any water in the clumps. Next, they would break up the lumps into a powder. They would build a bloomery furnace out of bricks and clay. They would let it dry to prevent it from exploding from steam when it was fired. A fire would be started in the furnace and the bog iron powder would be loaded into the furnace in alternating layers with charcoal. It took about 4.5 pounds of charcoal for every pound of bog iron. Since charcoal is so light, that means they used a considerable amount of charcoal. They would have to use a bellows to continually put air into the furnace from the bottom.

Normally it would take 8 to 12 hours to get the bog iron to form a bloom of iron. The temperature never got hot enough to melt the iron but rather just combined and consolidated it. The furnace then had to be broken apart to get the white hot consolidated "bloom" out of the furnace. The bloom was then pounded with hammers to squeeze out as much slag (impurities, mostly silicates) as possible while it was still hot. This was another tedious process. In some areas, such as Palmer River and Taunton, they had a water powered mill to power the hammering.

There was still some slag left in the iron so it was not of the purest quality and had a certain brittleness. It could only be used for certain products. Later with the advent of coal, the iron could be melted and further purified producing "pig" iron.

Community Garden News

It's the beginning of May and the Attleboro Community Garden is coming alive. Several plots have cool weather crops that are doing well and we expect to see a lot more green and color as the month goes on.

We are quite excited about our 21st season. Over 50 gardeners came out for the Garden's Opening Day on April 6th to clean up the Garden and prepare it for the growing season. During Opening Day, two Boy Scouts presented their completed Eagle Scout projects to the Garden: one built a 12-foot long potting/work table and the other organized the shed, installing hooks and shelving and built two planters that run alongside the shed. A third Boy Scout is working on his Eagle Scout project later this Spring. He will be adding to the garden's beautification effort.

Other activities planned for the year include:

Continuation of beautification efforts with an emphasis on the border garden

Planting herb gardens in the planters by the shed

Building a Little Library to be installed by the parking lot so it is available to the public

Enhancing the kiosk so that it can be used to provide resources to gardeners and the public

Annual Garden Party on June 22 and the third Annual Ladybug Release on June 28

Harvest Day, when we harvest some of our crops to donate to a local food pantry

Summer Workshops

We have started a Meet our Community Gardeners series on social media. Follow us on Instagram @attleborocommunitygarden and Like our Facebook page Attleboro Community Garden

Upcoming May Events:

Saturday, May 4, 9 am – Work on the border garden at the Attleboro Community Garden.

Saturday, May 4, 9am to noon – Attleboro Garden Club Annual Plant Sale at the Attleboro Public Library

Saturday, May 18, 10 am-2 pm – Bloom Gardening for Good Annual Plant Sale at the Community Garden

Note that even though all plots have been assigned for 2019, all programs at the Garden are open to the public.



Pearls of Wisdom from the Conservation Conference

Every March the Mass. Land Trust Coalition puts on a robust conference. I learned this year:

- 27% of Massachusetts land area is protected under Conservation Restrictions
- Currently, to mitigate climate change, the greatest carbon reduction asset in Massachusetts is its FORESTS
- Native Brook Trout habitat has shrunk to only 5% of it's size a century ago. Trout Unlimited

Attleboro Geocachers Highlighting Conservation and History

The **Attleboro Geocachers Alliance** has been placing geocaches on ALT properties and other places in Attleboro and the surrounding area using Earth, Traditional, Multi, and Mystery caches to highlight conservation, earth features, history, and other interesting areas around Attleboro as well as just fun caches for kids.

Geocaching is the world's largest treasure hunt. There are over 3 million active geocaches in 191 countries and all seven continents. There are over 5 million geocachers. Using the geocaching app (free or \$30 a year for premium) in a smart phone or GPS device, cachers can find the geocaches. **Groundspeak** (Geocaching HQ) also has an Environmental initiative. They promote the environment with **CITO's** (Cache IN Trash Out) twice a year, as well as having specific requirements that the caches and cachers do no harm to property, protect the environment, and get the property owners permission before placing a cache. The **Attleboro Geocachers Alliance** conducted a **CITO** on April 20th at Larson Woodlands property.

While there is no real treasure at a cache, only a log to sign and possibly some SWAG for kids to trade, Geocaching promotes exercise, community involvement, and the environment.

They are planning a Geocaching 101 walk for children and parents in conjunction with the **Land Trust** and the **Attleboro Public Library** in the future.

See **Geocaching.com** for more information or to sign up for the app.

AttleboroGeocachersAlliance@outlook.com



Ted Leach and Gary Briggs at the Attleboro Land Trust Sign-up at **Briggs Garden and Home** on April 20, 2019. The Briggs Garden and Home are a long time corporate sponsor of the Land Trust. Signups at the Flower Show and Briggs was very successful. We signed up seven new members and twelve new volunteers.



A rare find of a three foot mound Allegheny Mound Ants on the Handy Street Conservation Area . Do not disturb as these ants are very aggressive if their mound is disturbed, with the ants injecting formic acid into their victims. They tend to kill the vegetation on and around their mounds turning the mounds into incubators for their larvae. They eat insects.

Hike Attleboro To Be Featured in the City's Future

Hike Attleboro will be a central part of the City's future, according to new Economic Development Director Catherine Feerick, and will promote the many miles of trails open to the public and owned by the Attleboro Land Trust, the Audubon Society and the City. Hike Attleboro signs on state highways as well as city streets will be designed to attract outdoor enthusiasts and families to Attleboro as a city which values open space for the enjoyment of all.

THANKS TO OUR LOYAL DONORS!

From our founding in 1990, faithful members have contributed thousands of dollars that have made a huge difference in the quality of life in the Attleboro's. Each year we work hard to put those dollars to the best use. A small percentage goes toward administration: Insurance, office supplies and mailings. But the lion's share goes to preserve land in its natural state and maintain public access to much of that land.



President's Message

Protecting Conservation Land

Preserving open space in its natural state requires some care and attention. That's why we put in place deeded **CONSERVATION RESTRICTIONS** that spell out the permitted uses for the land. Usually these restrictions include protecting wildlife habitat. Your Land Trust strives to monitor all our properties regularly to prevent encroachments and attend to needed maintenance of trails and signs. While walking the Handy St. Property this month, we discovered two dams that would degrade the aquatic habitat of amphibians. The dams were taken down. We also discovered dumping of yard waste and rubbish by a neighbor. This will be addressed with a friendly but firm request that the dumping cease and waste be removed.

If you enjoy walking through conservation land in our community, please consider becoming a site steward.

Roy Belcher

Partnering with local municipal and private conservation organizations can strengthen Land Trusts



Conservation Restriction Monitoring Team from Mass Audubon doing a semiannual inspection of Land Trust property

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Focus on Education

Our most recent strategic plan calls for more emphasis on environmental education. We made a start with the School to Career program last summer. This year we will add two new offerings to involve high school students in gardening programs to emphasize the need to protect natural resources and to understand our dependence on agriculture.

Attleboro's youth deserve to know the challenges they will face as climate change and population density put increased pressure on our local environment. We hope to engage them in considering ways to preserve our local environment through social media, fun projects and hands-on experiences.

The Farm to Table class at Attleboro High School is working with the Land Trust on a very special project this spring. They will be planting an authentic "three sisters" garden at the Richardson Preserve to honor local, historic traditions. We are also working on engaging with students through our newsletter. Starting next month, students from Attleboro High School will be contributing to our monthly student newsletter by writing articles about land conservation and related topics. We will also be collaborating with a student intern who will be taking charge of our social media. Stay tuned for exciting, youth-driven projects in the coming months!

Your Land Trust also helps to connect youth to nature through scouting. Scouts have completed many worthwhile projects producing valuable infrastructure for the community while developing a variety of skills.

If anyone doesn't want to continue receiving this newsletter, they may optout by emailing to ALToptout@gmail.com and leaving their email address.