

RGT Stewardship Plan

Site: East Leverett Meadow (ELM)

Plan for year: 2013

Note: This plan was begun in the spring of 2012 but not completed until October. Therefore this plan includes both 2011 as the initial budget year (#10), and then (#13) 2012 which is almost complete and anticipated expenses in 2013. Revised goals are for the rest of 2012 and 2013.

1. Description: size, location, access, brief description

The East Leverett Meadow consists of approximately 25 acres of grassland and 5 acres consisting of edge habitat (shrubs and trees), an old orchard, and field-grown pine. Roaring Brook flows along the southern edge of the meadow. There is a beaver pond on the north edge.

The property has frontage on Cushman Road with a trap rock parking area. The trail that begins there, crosses Roaring Brook on an AmeriCorps footbridge and continues to the meadow and its loop trail.

There is vehicle access through a neighbor's property ("the tavern") at the northeast corner for both ELM and the two properties to the west. A transmission line goes through the meadow SE to NW.

or same as last year

2. Site Significance:

Rattlesnake Gutter Trust acquired East Leverett Meadow in 1997 when it was under threat of development. Funds were raised from a variety of sources to protect the land as meadow and to open it to the public.

The meadow is large enough to support nesting Bobolinks; the meadow and adjoining Roaring Brook host wood turtles (endangered species in Massachusetts). Many other wildlife sightings have been reported in this varied habitat.

ELM is bordered by the Kuzmeski Conservation Restriction held by RGT which adds 2 acres of shrubs and trees to the Cushman Road section of the property and provides additional protection for Roaring Brook.

ELM is part of a network of hiking trails in East Leverett that link town conservation areas, with protected private lands (two Conservation Restrictions plus ELM), and privately-owned unprotected properties.

or same as last year

3. Deed Restrictions/Responsibilities:

Easements:

1. The power company has a right of way for its power line (SE to NW).

2. ELM has a right-of-way through the “tavern property” to the meadow. The two properties to the west (Sincuk-Jones and Paul Adams) have access to their land through the tavern property and ELM.

There are no other restrictions in the deed.

or same as last year

4. Site Restrictions/Limitations:

Access:

Working vehicle access through the tavern property on Shutesbury Road for ELM and the 2 neighbors to the west.

Power company along the power lines for maintenance.

Foot access from the Cushman Road parking lot over the AmeriCorps bridge to the meadow.

Mowing: Endangered species (wood turtle) dictates October mowing schedule (earlier mowing was based on Bobolink nesting.)

Hunting: Restricted to north half of property for safety of neighbors on Cushman/Shutesbury Road.

Vista: The neighbor at the SW corner, Chet Cramer, traditionally had a view of the meadow, but brush hogging encouraged shrub growth which annually obscures the view. And annually has to be cut back.

or same as last year

5. Plant Communities, Wildlife Communities, Natural Features:

The meadow is an alluvial fan, a roughly triangular deposit of sediment that washed out of the surrounding mountains over several thousand years. It is also part of the floodplain of Roaring Brook which forms part of its southern border. The meadow has water on two sides: Roaring Brook on the south and a beaver pond on the north. On the north are wet woods (NW) and a drier old orchard (NE). There is also a field pine woodland along Cushman Road on the south.

Plant communities reflect the diversity of habitats:

roadside woods is old field pine and shrubs (and invasives)

narrow riverine area of shrubs and small elms along Roaring Brook (and invasives)

meadow varies from drier/higher east to wetter/lower western edge

north edge has wet woodlands (NW) with red maple and shrubs, beaver pond, and higher area (NE) with old apple trees (and invasives)

Wildlife data has been collected since 2000 (sometimes systematically, sometimes haphazardly). A brochure listing species is available to the public. The diversity of habitat (wet and dry woodland, edge, meadow, beaver pond and stream) host critters large and small. Virtually all the large mammals reported in the area (moose, bear, deer, fox) have been seen at ELM – deer often. The only endangered species found has been wood turtle. The kestrel box attracts kestrels every spring, but none have stayed to nest. Bobolinks nest in the meadow (up to 5 males).

or same as last year

6. Historic Land Use and Cultural Resources:

There does not appear to have been a house on the property.

Historically East Leverett was an active mill community using the water power of Roaring Brook. Most of the mills were east/upstream of this property, but the trail passes by two foundations along the eastern edge just below the old tavern. The buildings on those foundations may have been stills associated with the local cider industry. (Still Corner Road is nearby.) Maps of the town from 1830 on show the mills and buildings of the present East Leverett (then called South Leverett). The first map, with its lovely drawn trees, shows the meadow area as not being forested (no trees drawn in). Over the years/maps, the location of the major Roaring Brook bridge varies either with an actual change of location or with the map maker's accuracy. By the 1871 Beers atlas, the bridge is close to its present location (upstream of the meadow). We know the meadow has been open and used for farming for many years (corn and hay in recent memory). We also know that Roaring Brook was bulldozed regularly by the Army Corps of Engineers (After spring floods brought rocks into the stream making it too shallow and too likely to cause flooding for the houses downstream, the Corps would deepened the channel. Bill Mitchell was told that they did it until about 1950 when the environmental regulations prohibited it.)

When purchased ELM had been a traditional place for hunting stocked pheasants. That practice was discontinued but hunting is allowed on the north side of the property.

or same as last year

7. Trails Present and Potential (also complete/revise Trail Assessment on last pages):

The trail goes from the Cushman Road parking lot, through the roadside wood (partially in the Kusmeski CR to the east), crosses the AmeriCorps footbridge and then goes to the loop trail around the meadow. In 2012, this trail was linked to a network of trails connecting properties on both sides of Doolittle Brook all the way to the 4-H forest area to the north. The network will be completed by spring 2013.

or same as last year

8. Potential Threats: (boundaries/access, unauthorized use, hydrology/wetlands, soil erosion/sedimentation, invasive species, sensitive resources)

Inappropriate use. Although ATVs and snowmobiles are not allowed, they do appear (and always have). Signage and monitoring appear to be the only solution. The increase in usage as part of the trail network may increase the problems with dogs during nesting season. A small amount of trash has to be picked up regularly along the road/parking lot area (almost none on the trails).

Aquifer protection: The sediments beneath the meadow are an important aquifer for dwellings downslope. The water table in the meadow rises and falls with seasonal rainfalls, but is about 7 feet beneath the surface at the eastern end and only a foot or so beneath the surface at the western

end of the meadow. There is a monitored plume of chemicals leaking from the old capped landfill at the nearby Transfer Station. That plume is polluting wells on Teawaddle Hill Road. The plume appears to be lower than the ELM aquifer – making continued protection of this aquifer even more important.

Unprotected neighboring land. While both the Sincuk-Jones property and the Adams property are being managed to protect conservation values and the owners have agreed to allow trails, neither are legally protected. (Sincuk-Jones might not be eligible for a CR, but Adams would be). All other bordering land is house lots (or the Truehart farm).

or same as last year

9. Management Goals Last Year and Accomplishments during 2012:

1. Continue the collecting of data about wildlife (plant/animal) use.

- a. Data put on Board-only section of the RGT website and is updated occasionally. Some groups missing (moths, small mammals, plant surveys are 12 years old).
- b. Bobolink Survey (Molly Hale) is continuing so we can track status of bobolinks even when mowing has been delayed to protect turtles.

2. Determine which key species should dictate management strategies

This past year the mowing schedule was changed from protecting Bobolink (late July) to protecting Wood Turtle (late October.)

Edge habitat has been a priority for many species and last year there was cutting of trees along the edge and cutting of invasives – a never-ending job.

3. Encourage use/enjoyment by public

- a. Stolen parking lot sign replaced and a new informational sign added at the trail network entrance in NW
- b. Maps of the East Leverett Trails (including ELM) available at the library and on web (www.rattlesnakeguttertrust.org).
- c. Maps and brochure for East Leverett Meadow available at the meadow mailbox and on the web.
- d. Walking path maintained: parking lot to meadow is mowed by volunteers, the meadow path mowing is paid by RGT. Parking lot was improved with 3 loads of trap rock.
- e. There are usually students groups (most often UMass and Hampshire College) brought to the meadow. Todd Fuller, UMass, brought his ecology class this year.
- f. Special programs inviting community to the meadow. This year: 2 kestrel releases and

15-year celebration scheduled. Two trips by an informal birding group (10-15 participants each time.)

4. To make ELM benefit RGT, not drain resources – financial and energy.

a. Parking lot work done as part of town's in-kind contribution to the East Leverett Trail grant.

b. Fund-raising. Both increased use through the trail network and increased publicity for the protected areas in East Leverett during the Teawaddle Hill Conservation Restriction campaign has increased RGTs visibility – and might translate into increased support/funding/volunteer assistance.

b. Realistically, the regular costs of meadow management (bobolink survey, mowing path, mowing entire meadow) are not candidates for outside funding. Those costs will have to be paid from RGT funds.

5. (Note: although this had not been on our earlier list, the maintenance of the property – walking the boundary, mowing contracts, cutting of invasives, maintaining signage was, in fact, one of our goals.)

10. Compare last year's budget (2011) with actual costs:

a. Estimated every-year costs:

1. mowing path around meadow (Koslowki). In 2011 = $\$180 \times 2 = \360
2. mowing meadow in late fall (G.Rawls). In 2011 = \$625
3. annual monitoring of Bobolinks (Molly Hale). In 2011 = \$250

b. Estimated single-year costs:

c. Unanticipated costs:

In 2011, paying grad student for turtle work (partially covered by a grant from the Norcross Foundation) = \$200

These were unanticipated 2012 costs:

Two new signs (replacement for stolen and new for entrance from Sincuk.
Signs \$125 each, posts/hardware \$65.75 total = \$315

11. Management Goals This Year (2013):

1. Conduct routine management

- a. Walk boundary and property generally to determine potential problems, maintain trails, make minor repairs.
- b. Contract for: 2 path mowings and 1 field mowing.
- c. Develop and monitor management schedule to make routine tasks as easy as possible

2. Enhance habitat to support present plant and animal use and encourage additional species to the meadow

1. Continue to collect data both informally and formally to understand present use (and what species are rarely or never present.)
2. Identify areas in which data is needed and develop procedures for collecting it.
3. Determine ways to enhance species use (for example pollinator plants) that would not have unintended consequence (invasive seedlings).

3. Encourage use/enjoyment by the public

1. Collect data on public use.
2. Encourage feedback from users about ways to make experience better.
3. Continue to update information, maps, and to offer public programming.

4. To make ELM benefit to RGT – not drain on resources – either financial or volunteer energy.

1. Search for ways to enhance habitat and public use that can be completed at minimal cost.
2. Evaluate contracts each year to determine that money is being spent wisely.

12. Schedule of Planned Activities (including monitoring) to Meet Goals:

2013 Schedule to be decided at next meeting (after 10/10/2012)

13a. Budget: Description This is for 2012	Estimated cost	Estimated Total
a. Costs every year		
mowing trail around meadow	\$180 x 2= \$360	
mowing meadow late fall	\$625	
Bobolink survey	\$250	
		\$1,235
b. Costs just this year		
2 signs (signs and posts)	\$315	
15-year celebration	\$50	
		\$365
(Total for this year)		\$1,600
<i>c. Anticipate additional costs next year</i>		<i>(do not add to total)</i>
13b. Budget: Description This is for 2013	Estimated cost	Estimated Total
a. Costs every year		
mowing trail around meadow	we anticipate this will be done for free by volunteer Steward Olson	
mowing meadow late fall	\$625	
Bobolink survey	\$250	
		\$875
b. Costs just this year		
<i>possible bridge repair</i>	??	
<i>possible additional data collection</i>	??	
(Total for this year)		\$875 +?
<i>c. Anticipate additional costs next year</i>		<i>(do not add to total)</i>

Plan completed by: Gwyn Mitchell, Sheila Seaman, Steve Weiss, Mary Alice Wilson

Accepted by the RGT Board at their meeting on December 17, 2012

Special thanks to the East Quabbin Land Trust for their help with the design of this document.

Trail Assessment

First year: complete. Attach map with appropriate notations.

Each following year: walk trail with previous Trail Assessment to review status; note changes or write "same."
(Attach map if needed.)

RGT thanks the East Quabbin Land Trust for sharing their assessment document..

Types of access and use currently allowed on trails and facilities:

a. No facilities.

b. From Cushman Road Parking Lot or from entrance to the East Leveret Trail network:

Trail for walkers.

Bicycles not prohibited.

ATV/snowmobiles prohibited.

c. Vehicle Access from Shutesbury Road for ELM and two properties to the west (mowing, logging), power company (maintenance – can also enter under the power line), and for emergency vehicles (the plane crash, for example).

Special Features (including views, historic, and natural features):

a. Most of the trail is along outside of meadow providing a view of both the meadow and the wildlife activity (including nesting Bobolinks) and the edge habitat. (There is a pamphlet listing birds and other critters observed at ELM.)

b. Roaring Brook flows along the south side of the meadow. An AmeriCorps footbridge crosses it.

c. Wood turtles can be found on the banks of Roaring Brook in the spring and are using the meadow during summer and early fall. Protecting this endangered species is high priority in managing the trails and farm vehicle access.

d. The trail passes two foundations on the east edge that date from the East Leverett mill village of the 19th century.

Characteristics of parking and entry (including gates, number of parking spaces):

Trap rock parking area, 4 cars parallel, 6+ if at an angle. No gate at the entrance. There is a sign at the parking lot and a second, more informative, sign along the trail. At the edge of the meadow, next to one of the benches is a mailbox with additional information.

Characteristic width of existing trails:

Narrow Foot Trail < 3 ft.: All trails vary from 3 feet to, at most 5 feet. Trails cut by volunteers (parking lot to the bridge and bridge to the meadow) are 3 feet. The trail around the meadow, cut by a larger machine, averages 4 feet.

Trail > 5 ft.: - none

Farm/Woods Road >10 ft.: none (The vehicle access road varies in width and is not mowed for walking)

Trail constraints (gates, bridges (note width), topography, wetlands, stream crossings):

- a. No gates. (The “gate” indicated on the map refers to a farm gate that is leaning against the fence.)
- b. The footbridge has 3 steps (south end) and 2 steps (north end) and is 3 feet wide.
- c. There is a slight elevation change in the roadside wood. The trail in the meadow is essentially flat.
- d. The west end of the meadow is wet/muddy in the spring.
- e. Working vehicles (logging, power line maintenance) can damage the north side of the meadow trail (which is also the vehicle access), but has always been repaired by the user.

Trail surface (including surface material and any obstacles between specific stations on map):

- a. All trails are mowed. A few places are bare ground, but mostly there is some low grass.
- b. The area to the south of the bridge floods regularly and is, therefore, always just loose sand.
- c. The bridge has 3 steps on the south end and 2 on the north end. There is a railing on the bridge, but none for the steps.

Trail length (total length and length to specific station such as bridge):

Parking lot to bridge 0.1 mile
bridge to meadow loop 0.1 mile
loop around meadow 1.0 mile
Therefore entire trail is 1.2 miles
(It is 0.5 miles from the parking lot to the entrance to the East Leverett Trails.)

Volume and signs of access (Note signs of access by bicyclists, hikers, equestrians, ATV's)

We do not keep a tally of use, however, it is probably used by at least 2 groups (individuals alone or with others) a day. Most users are walkers or joggers (or cross-country skiers if the weather permits). Mountain bikers occasionally use the trail, but there is little sign of their use. The footbridge makes use by horses impossible from the parking lot (although with the trail network, they could make a loop and return to the network of trails.) ATVs do use the trails, but are discouraged (signs prohibit their use).

Trail surface (including surface material and any obstacles between specific stations on map):

Dirt/mowed vegetation. There are almost no rocks in this alluvial fan.

Trail grade (between specific stations on map):

Flat (except minor change in grade in the roadside wood).

Hazards (tree blow downs, hanging limbs, loose rocks, rough terrain etc.):

- a. Ground is uneven.
- b. Bridge steps do not have railing.
- c. Ticks, mosquitoes.
- d. If there are floods (spring, major storms), water surrounds the bridge.
- e. In spring, the trail at the west end of the meadow is wet/muddy.

Safety constraints and requirements:

- a. The meadow was a traditional hunting area. Stocking of pheasants is no longer allowed, but hunting is permitted in the north half of the meadow. Signage about hunting/hiking will be put up fall 2012 on all entrances to the East Leverett Trails, including the ELM parking lot.
- b. The AmeriCorps footbridge over Roaring Brook was slightly bent in Hurricane Irene (August, 2011). It needs to be checked regularly and, perhaps, railing put up on the steps – at least one side.
- c. Paths need regular mowing during growing season. This needs to be done with care in order to avoid damaging the wood turtles.
- d. Signs at all three entrances (parking lot, farm vehicle entrance, entrance from the East Leverett Trails) explain trail use.

Signs of vandalism:

The parking lot sign was stolen last year (now replaced).

ATVs and snowmobiles used at the beginning or end of the winter can tear up the meadow.

There has been very little trash found on the property. (There is always some along the roadside.)

Risk of harm to natural and cultural resources:

The trail has been designed to minimize the impact of human use on the wildlife – with special emphasis on nesting Bobolinks and wood turtles. Although it is always difficult to collect data, we seem to have a reasonable balance between opening the land to the public, informing the public about appropriate use to protect the habitat/critters, and actually protecting them. In addition to signage, maps, and clearly marked trails, programs are offered at ELM to inform visitors of the resource and appropriate activities.

Recommendations to fix a problem on the trail (including signs needed, brush clearing, erosion control, bridges or steps over wet section):

- a. Mowing trails, removing invasive (and prickly) species, and removing fallen trees is an on-going process which needs regular attention.
- b. Signage, maps, and a pamphlet (maps and pamphlet are available at the meadow and on-line) needs regular updating.
- c. Bridge needs to be evaluated. Should any repairs be needed, railing could be added.

Trail map attached highlighting sensitive areas and constraints:

Note. It is not possible to know where the wood turtles are, so the entire property is considered to be wood turtle habitat.

Assessment completed by: Gwyn Mitchell, Sheila Seaman, Steve Weiss, Mary Alice Wilson

Date: October 10, 2012