East Leverett Meadow: All "Goals" Documents 2000-2010 (Note. No editing done)

November 2000

East Leverett Meadow Questions

Goals for East Leverett Meadow

1. Maintain area in more or less present state:

Center as meadow

Edges as growing up field

Traditional uses (hunting most obvious)

2. Explore additional possibilities:

Place to enjoy (education, aesthetics, value open space....)

focus on both traditional users and newcomers to this meadow (trail, interpretation, guided walks, opportunities to participate in projects,)

Place to learn (citizen science, scientists, land managers, students of all ages)

collect natural history data (first baseline, then perhaps more focused)

classroom: learn observation/management/evaluation skills for students (all ages)

lab: experiment to enhance/change/increase habitat?

3. Other goals?

What needs to be done? Who needs to be involved in decisions? And how can MAW help?

1. Maintain vegetation/use

maintenance activities

activities: work parties, machines (haying, brush hogging) decisions: S/S, with board approval costs: machine work (haying contributing at the moment) always will be costs

MAW: only pass along advice from experts - like getting goldenrod brush hogged (and bring Bill to work parties!)

policies/practice/communication with traditional users

activities: interpersonal relations, board policies/practice decisions: S/S, board (heavily involved) cost: none?

MAW: not directly involved (except perhaps hunter connection)

2. Explore additional possibilities

Place to enjoy

activities: signage, trails, activities decisions: S/S, board (heavily involved) cost: parking lot, signage, materials (will continue as new possibilities are suggested)

MA: only role to add to ELM resume (included in guides, on lists, etc. to help in fund-raising)

Place to learn

baseline data (for birds, mammals, butterflies, frogs, turtles, plants, plant communities/habitats)

decisions: S/S, board (initial approval only?) cost: none

MA probably most use here:

Map: email in to Bill Healy (can be finished soon - not sure of technical details, who has it on what program?)
Data collection (already identified Harvey and Dottie), have two systems for birds based on map areas and point-counts (5 minute observations) - probably will use both. Herbaceous, mammal, etc. all use slightly different systems, all need to be collected.
Data entry - Excel,. MAW can do
Data summarizing - MAW can do with Bill McComb's help

classroom: place to learn/students all ages

decisions: S/S, board involved in each project? costs: probably none

MA: help locate possible users, publicizing place through various networks

lab: experiments to enhance/change/increase habitat

decisions: S/S, board each project costs: probably none, changes in haying might require funds (might not)

MA can help here:

help locate possible experts

take responsibility for bluebird boxes (location and management): adv. of joining bluebird trail system (for bluebirds and for resume)

help explore long-term plans for mowing schedule Do not need to decide now, maybe not even for a year, but fit does seem that:

> meadow probably must be hayed (not burned different grasses) big bales can be cut mid-July can treat different areas differently

can even try very modest experiments with leaving strips one area to play with: vernal pool

Final question: best way to communicate? email? meetings?

Issue/Activities at East Leverett Meadow (notes from meetings Feb. 8 and Feb. 15, 2001)

Goals: (seemed to be general agreement about these, at least the three categories if not specifics)

use/enjoyment by people honor traditional uses as much as possible increase access to meadow by community (individuals and groups) use/habitat by plants/animals determine present use (inventory) increase favorable aspects for plants/animals have ELM be self-supporting (i.e. not draining money from land purchases) grants or cooperative projects volunteer time, donated supplies for projects harvesting products (hay, wood lot)

Provide physical access for community:

bridge - done (doesn't it need sign with crews' name?)
Names: Steve will check with Americorps person, Steve Anzuoni
cabling: Shiela will check with Will Stratford
parking lot - design done, proposal in process
Sheila's draft distributed to exec. committee
Steve will read, make additions, get back to Sheila
trail around edges - (I now think that there should not be trail through middle) - some
cheap alternatives?
agreement about not having trail through middle
Steve will check with Paul Koslowski about what ATV could do instead of mowing
- he did and Paul thinks it will work. Steve and Sheila will walk meadow to
determine where he should go.
signs - seems to be agreement on wording (in proposal?)
Steve will check about Leverett Pond sign - style, costs, get back to Sheila - Sheila
will put it in proposal (aobut \$100)

Encourage use for educational/community purposes:

Sheia's environmental geology class has already used it, will again when she can teach it Bill McComb's management class may use it Both Hitchcock's bird and butterfly classes might use it (MA will pursue later) Listed on Bluebird Trail (MA need to check about thi - follow up on Hylea's email) may be in Bird Finding Guide to Western Massachusetts (MA check talk with Jan about Sunderland-Leverett section) brochure (timeline, contents?) will include geology, land use, history, plants, animals, also have interpretive trail. Probably wait until next winter when we have more data maintain good relations with traditional users (involved in management decisions? I have no idea.) elementary school? probably best to wait until next year

Plant/animal inventory (as educational and management tool)

map (mostly done, some of names of areas may be revised over time. MA needs to add geology inf (contours from Sheila's map - anything else?)
MA, put Kusmeski land on map with note about conservation easement (get from Sheila) Also put on geology inf. from Sheila
(done: map will show Kusmeski land, contours in but too confusing to print)
animals/birds/butterflies: have data procedure, some data, will continue to revise/improve (have some folks, need more by expertise)
Steve will contact Allison Whitlock about herp person, and Steve deStaffano about mammal person (and type of survey) (Steve was interested. Will do it himself or colleague will.)
plants: hope to start woody plants soon, herbaceous May (have folks)

Plant management of around edges

Goal: to maintain the different habitat areas as "early succession" areas so that it can continue to support the plant and animals presently using it. (And possibly enhance some areas so that it provides the best possible habitat for the appropriate species.)

Activities:

tree/shrub cutting mostly done (some more glossy buckthorn to do) - may need to use
 spot (on stump) application of herbicide, is that OK? (Needs to be annual work
 day to keep on top of this.)
 (got permission for topical application of herbicide)
brush hogging done (MA will map so we can follow effect)
 MA will map after snow down, Steve will take pictures
getting advice from a number of experts (list of people and publications attached). Wait
 on inventory to determine what additional "enhancements" need to be done.
 (need to start on plant inventory - MA and Bill - can do some now and then sites
 with Karen later)

Plant management of meadow itself

Goal: to maintain area as a meadow (i.e. not growing up into woody species) so that it can continue to serve as a nesting/foraging area for grassland birds, butterflies, and other critters. (And possibly enhance some areas so that it provides the best possible habitat for the appropriate species.)

Activities at the moment include:

developing and beginning a plant/animal inventory (see above)

getting advice for a variety of experts and publications (see below). While there is some difference in advice, all sources agree that the most central issue is the date of mowing.

Mowing Schedule: In the 4th year of 5 year contract to mow field twice a year. First mowing is as late as Tom Beauchesne can manage and still get feed hay (about July 4) and then a second mowing late in the season. RGT receives \$500. No question that the early July mowing destroys at least fledgling bobolinks and, since we do not yet have an inventory of others nesting critters, who know what else. What are the alternatives?

Honor the contract for the next two years.

(Steve thinks financially have no choice, Tom makes much more than he pays us, we would have to compensate him - lots of money)

Negotiate a slightly changed contract:

stop Tom from his planned reseeding of the west (lower/wetter) end of the meadow which is where we know the bobolinks nest

In 1st year reseeding process destructive - virtually no habitat, 2nd+ year: thicker grasses mean poorer nesting area.

Reseeding would keep us from studying the present grass structure (height/density/species) in the best bobolink nesting area so that we could decide if that habitat could be expanded.

(Steve thinks we can stop him from re-seeding. He will talk with him.)

and have Tom mow only the east end in July and then the entire field in late August. (It is unclear if he would be willing to do this - it surely would mean reducing or eliminating his payment.)

(*Here Steve is less optimistic. Will try to see what can be left in trade for the* \$500.)

Locate a farmer who bales the larger, round bales and wraps them in plastic.

I have been told that hay baled this way can mowed later and still be used as cattle feed (presumably because it stews inside the plastic.) I have not yet pursued this alternative, but it is certainly a possibility that might provide some income - or at least not cost anything. (Am uncomfortable pursing if we must keep original contract.)

(Sheila and I need to do more homework. Will go to March 3 Audubon meeting - (as will Steve). Also need to talk with other local farmers about haying in trade for bales. In fact, this is really another alternative.

Pay for an annual mowing without baling (or any removal of the residue).

Not good choice for bobolinks or other field critters: need bare ground for protection (run don't fly from danger) and for nesting.

Not good choice for keeping out woody plants: thatch provides better seed bed than bare ground.

Plant native, warm-season grasses.

Advantages: meadow of native grasses/forbs needs only once-a-year mowing, maybe even once every two years (maybe) Also aesthetically-educationally appealing.

Disadvantages: Process of establishing seedlings difficult and probably requires herbicides. New plants would not provide adequate cover for probably 2 years.

Alternative: Seed select areas (probably low-use areas) first. Since those areas could not be mowed for hay for at least 2 years, might want to think about some of edge areas recently brush-hogged (or some other areas?). Could then expand the areas.

(Again, need to do our homework)

Schedule localized meadow burns over a period of years.

Advantages: burning small sections can apparently enhance growth of native plants and may be a partial replacement for mowing. (We have access to experts to give us advice about this.)

Disadvantages: homeowners and power company (and perhaps cost, but that might be solved.)

(not discussed)

Look to sources other than the harvesting early hay for funding

Raise some money from late-mown hay (large bale, selling mulch hay somehow, other?)

Bill Healy suggested cutting some firewood in nw corner (red maple)

Grants based on our educational, environmental activities: we need to document stuff in preparation for such proposals AND keep an eye out for possible funding sources.

(not really discussed, except my pipedream that somehow farmer could be compensated for conservation practice.)

Other alternatives?

(not discussed - but did decide to present progress report to Board next Tuesday. MA will provide new map to Steve - he will copy packet. MA will bring the bird and butterfly lists so far.)

Below is a list of our most helpful sources of information.

Anderson, M.G, M.D.Merrill, F.B. Biasi, Connecticut River Watershed: Ecological Communities and Neotropical Migrant Birds, 1998, The Nature Conservancy

DeGraff, R.M., M. Yamasaki, W.B.Leak, J.W.Lanier, New England Wildlife: Management of Forested Habitats, 1989, Northeastern Forest Experiment Station, GTR NE-144. (and NEWILD materials on the web).

Ells, S., Wildlife-friendly Agricultural Leasing, 2000, Lincoln, MA, Conservation Commission (http://members.aol.com/sfe/LCC)

Vernegaard, L., R.Hopping, D.Reid, Ecological Management of Grasslands: Guidelines for Managers, 1998, Trustees of Reservations.

Vickery, P.D. and P.W.Dunwiddie, Grasslands of Northeastern North American, 1997, Massachusetts Audubon Society

Vickery, P.D. and A. Jones, Conserving Grassland Birds, 1998-2000, (in print and from the Mass Audubon website), Massachusetts Audubon Society

Advice and assistance has come from (or is promised by)

Harvey Allen: help with bird and other surveys. Harvey has also helped set up the inventory system

Carolyn Arnold, will help with plant survey.

Tom Arny, Astronomy Department, UMass and birder (lives nearby), help with identifying species which might most benefit from maintaining early-succession edges.

Dottie Case: help with bird and especially butterfly surveys. Dottie has also helped with the inventory system.

Steve de Staffano, UMass (Natural Resources and Conservation or US Fish/Wildlife group, not sure which). Advice on management, inventory practices.

John Green, US Forestry and Wildlife (retired), nature photographer and birder, visited meadow, help with inventory system and management.

Andrea Jones, Massachusetts Audubon Society and co-author of some of the materials listed above. Help with identifying sources of information on grasslands management.

Geoff LeBaron: head of the Christmas Bird Count, National Audubon Society, visited the meadow, management advice for grassland birds and inventory system.

Bill McComb, Natural Resources and Conservation, UMass. Bill visited the meadow and has provided most of the data-collection procedure information. He may bring his class to the meadow for a management case study.

Hilyea Priest, President, Massachusetts Bluebird Trail Association, help with bluebird box design and placement (and later maintenance)

Bill Rivers, MA Department of Environmental Management. Help both with management advice and the chain sawing of brush.

Karen Searcy, Biology Dept, UMass. will conduct plant survey (May and once or twice later) looking especially for endangered species.

Bill Wilson, Natural Resources and Conservation, UMass (retired), help with brush clearing and woody plant inventory.

East Leverett Meadow, Rattlesnake Gutter Trust April 24, 2002

1. Goal: understand present use of property by plants/animals through multi-year inventories

birds: Harvey Allen, Dottie Case, Deedee Minear, Mary Alice Wilson 3-year Bobolink survey Aaron Eiler (\$100/yr)
butterflies: Harvey Allen, Dottie Case, Deedee Minear herbaceous plants: Karen Searcy
woody plants: Karen Searcy, Bill Wilson turtles, snakes, frogs: (Shelia looking for volunteer) mammals: 2002 Laura Dyjak (need volunteer this year?)

2. Goal: maintain and/or enhance habitat for plants/animals using inventory data

timeline:

completing first 5-year plan at end of this growing season in fall convene conference/working group of those involved in meadow (trustees+volunteers) to review data and develop next multi-year plan

meadow itself for grassland birds, butterflies/dragonflies/grasses-sedges trail/signs to maintain integrity of meadow mowing (present schedule through 2002 growing season) additional enhancements: e.g. planting native warm season grasses in selected limited experimental areas; see timeline

- edges (number of different habitats around the edges) for critters/plants selective thinning/brush hogging/removal of invasive woody plants (on-going) additional enhancements: e.g. planting wildlife-supporting shrubs; see timeline
- 3. Goal: encourage use/enjoyment by people

honor traditional uses hunting allowed with safety zone (no pheasant stocking on property) trail maintenance with ATV

provide clear rules so no bad feeling trail signs no dogs in nesting season

enhance physical access/arrangements bridge/trails (done) parking lot (Sheila organizing) gate on north road (Sheila organizing) signs, benches, kiosk, observation platform (wait on parking lot costs, need design ideas - get to Mary Alice) map/flier (Mary Alice - winter 2002/3)

encourage use as educational lab/museum/classroom Wildlife management class project 2001 one honors thesis; one masters project; one elementary project (on-going) RGT walk spring 2002

have ELM serve as "shining example" of what RGT/land trusts can do walk line between showcasing and encouraging over-use

4. Goal: Make ELM a benefit to RGT, not a drain on resources (financial/energy)

organize volunteers (adults/students) for variety of projects without taking time/energy from other RGT projects

look for ways to minimize maintenance costs (mowing, other machine work)

- look for grant funding when necessary (maintain data with funding requirements in mind) and when not competing with other RGT needs. (ELM story also good one to use in fund-raising efforts for other projects.)
- use ELM as part of "corridor thinking" as we explore conservation restrictions/other avenues of protecting/conserving Leverett land. Carl Field (Brook coordinating?) Mitchells (Sheila and Steve coordinating?)

Immediate questions:

OK to do last year of Aaron Eiler's 3-year bobolink survey? (\$100) Anyone who can't go on Harvey's walk want to take bird walk in the meadow? (see Mary Alice) Other goals/activities not listed above that need to be put on the list?

Other goals/activities not listed above that need to be put on the list?

East Leverett Meadow, Rattlesnake Gutter Trust (RGT) August 2002

1. Goal: understand present use of meadow and edges by plants/animals through multiyear inventories

birds: Harvey Allen, Dottie Case, Deedee Minear, Mary Alice Wilson (begun 2000, ongoing); 3-year Bobolink survey 2000-2002 by Aaron Eiler

butterflies: Harvey Allen, Dottie Case, Deedee Minear, Judy Smith (begun 2000, ongoing) herbaceous plants: Karen Searcy (begun 2001, on-going) woody plants: Bill Healy, Karen Searcy, Bill Wilson (1997, re-done 2001, on-going) turtles, snakes, frogs: Al Richmond (beginning fall 2002) mammals: 2001 Laura Dyjak (none 2002)

2. Goal: maintain and/or enhance habitat for plants/animals using on-going inventory data

timeline:

1997: developed first 5-year plan, ending fall 2002 fall 2002: complete second five-year plan

meadow goal: manage for grassland birds, butterflies, dragonflies, mammals, grassessedges

clear loop trail with interpretive signs to maintain integrity of meadow annual late-summer mowing to maintain grassland possible additional enhancements: for example, planting native warm-season grasses in test plots

edge habitat goal (there are a number of different habitats around the edges): manage for shrubland/forest birds, butterflies, reptiles/amphibians, mammals, plants

selective thinning/brush hogging/removal of invasive woody plants (on-going) possible additional enhancements: for example, planting native wildlifesupporting shrubs

3. Goal: encourage use/enjoyment by people

honor traditional uses

hunting allowed with safety zone (no pheasant stocking on property) some trail maintenance with ATV

provide clear rules so no bad feeling

trail signs and clear trail

no dogs in nesting season

enhance physical access/arrangements

Completed so far:

bridge establish loop trail into and around meadow parking area

Completed by end of winter 2002-2003

gate on north road (winter 2002) signs (welcome and interpretive), benches, map kiosk, observation platform (at present only temporary signs) map/flier

encourage use as educational lab/museum/classroom

Projects so far:

Environmental Geology class project 1998; Wildlife management class project 2001, others to be invited One honors thesis; one masters project; one elementary project (on-going) Public walk fall 1999; Hampshire Bird Club walk spring 2001; RGT walk spring 2002

have ELM serve as "shining example" of what RGT/land trusts can do walking the fine line between encouraging use and inviting over-use

4. Goal: Make ELM a benefit to RGT, not a drain on resources (finances/energy)

organize volunteers (adults/students) for variety of projects without taking time/energy from other RGT projects look for ways to minimize maintenance costs (mowing, other machine work) look for funding when necessary without competing with other RGT needs. use ELM as part of "corridor thinking" as we explore conservation restrictions/other avenues of protecting/conserving Leverett land.

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East Leverett Meadow, Rattlesnake Gutter Trust (RGT)

January 2004

1. Goal: understand present use of meadow and edges by plants/animals through multiyear inventories

birds: Harvey Allen, Dottie Case, Deedee Minear, Mary Alice Wilson (begun 2000, on-going); 4-year Bobolink survey 2000-2002 by Aaron Eilers, Molly Hale
butterflies: Harvey Allen, Dottie Case, Deedee Minear, Judy Smith (begun 2000, on-going)
dragonflies: done casually when doing other inventories, on-going
herbaceous plants: Karen Searcy (begun 2001, on-going)
woody plants: Bill Healy, Karen Searcy, Bill Wilson (1997, re-done 2001, on-going)
turtles, snakes, frogs: only done casually with other inventories, on-going
mammals: 2001 Laura Dyjak, done casually with other inventories, on-going

2. Goal: maintain and/or enhance habitat for plants/animals using on-going inventory data

timeline:

1997: developed first 5-year plan, ending fall 2002 fall 2002: complete second five-year plan, ending 2007 (end of WHIP grant)

meadow goal: manage for grassland birds, butterflies, dragonflies, mammals, grassessedges

keep loop trail clear with mowed path, stakes, and introductory signs late-summer mowing to maintain grassland every other year liming of those area of meadow needing treatment (soil samples, 2005) possible additional enhancements: for example, planting native warm-season grasses in test plots

edge habitat goal (there are a number of different habitats around the edges): manage for shrubland/forest birds, butterflies, reptiles/amphibians, mammals, plants

selective thinning/brush hogging/removal of invasive woody plants (on-going) liming of goldenrod patches (fall 2004)

possible additional enhancements: for example, planting native wildlifesupporting shrubs

3. Goal: encourage use/enjoyment by people

honor traditional uses

hunting allowed with safety zone (no pheasant stocking on property) snowmobiles allowed as long as sufficient snow/frozen ground path maintained through mowing

provide clear rules so no bad feeling

trail signs and clear trail no dogs in nesting season

enhance physical access/arrangements

Completed so far:

bridge establish loop trail into and around meadow parking area

Completed by end of 2004

signs (welcome and interpretive), benches, map kiosk, perhaps observation platform (at present only temporary signs) map/flier to be distributed at kiosk

encourage use as educational lab/museum/classroom

Projects so far:

Environmental Geology class project 1998; Wildlife management class project 2001, others to be invited One honors thesis; one masters project; one elementary project (on-going) Public walk fall 1999; Hampshire Bird Club walk spring 2001; RGT walk spring 2002 have ELM serve as "shining example" of what RGT/land trusts can do walking the fine line between encouraging use and inviting over-use

4. Goal: Make ELM a benefit to RGT, not a drain on resources (finances/energy)

organize volunteers (adults/students) for variety of projects without taking time/energy from other RGT projects look for ways to minimize maintenance costs (mowing, other machine work) look for funding when necessary without competing with other RGT needs (WHIP grant through 2007) use ELM as part of "corridor thinking" as we explore conservation restrictions/other avenues of protecting/conserving Leverett land.

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East Leverett Meadow, Rattlesnake Gutter Trust (RGT) March 2005

1. Goal: understand present use of meadow and edges by plants/animals through multiyear inventories

birds: Harvey Allen, Dottie Case, Deedee Minear, Mary Alice Wilson (begun 2000, on-going); 4-year Bobolink survey 00-02 by Aaron Eilers, 03+ Molly Hale
butterflies: Harvey Allen, Dottie Case, Deedee Minear, Judy Smith (begun 2000, on-going)
dragonflies: done casually when doing other inventories, on-going
herbaceous plants: Karen Searcy (begun 2001, on-going)

woody plants: Bill Healy, Karen Searcy, Bill Wilson (1997, re-done 2001, on-going)

turtles, snakes, frogs: only done casually with other inventories, on-going, Al Richmond will do in spring of 2005

mammals: 2001 Laura Dyjak, done casually with other inventories, on-going

2. Goal: maintain and/or enhance habitat for plants/animals using on-going inventory data

timeline:

1997: developed first 5-year plan, ending fall 2002

fall 2002: complete second five-year plan, ending 2007 (end of WHIP grant)

meadow goal: manage for grassland birds, butterflies, dragonflies, mammals, grassessedges

keep loop trail clear with mowed path, stakes, and introductory signs late-summer mowing to maintain grassland (2003 mow only, 2004 brush hog only, 2005 mow/bale, 2006-7 mow sections each year)

liming of those area of meadow needing treatment (soil samples, 2004, liming fall 2005)

possible additional enhancements: for example, planting native warm-season grasses in test plots

control of invasive grasses: canary reed grass (2004 one section dug, one covered, monitor in future); bedstraw (2005)

edge habitat goal (there are a number of different habitats around the edges): manage for shrubland/forest birds, butterflies, reptiles/amphibians, mammals, plants

selective thinning/brush hogging/removal of invasive woody plants (on-going) liming of goldenrod patches (minor areas 2003, brush hogging 2004, liming fall 2005) cutting below power pole, spring 2005 cutting sumac to enhance view for neighbor, ongoing possible additional enhancements: for example, planting native wildlifesupporting shrubs

3. Goal: encourage use/enjoyment by people

honor traditional uses

hunting allowed with safety zone (no pheasant stocking on property) snowmobiles allowed as long as sufficient snow/frozen ground path maintained through mowing

provide clear rules so no bad feeling

trail signs and clear trail no dogs in nesting season clear understanding with neighbor about cutting by stream + keeping view open (note: seems to be working, no longer problem with late-night parties, trash)

enhance physical access/arrangements

Completed so far:

bridge establish loop trail into and around meadow

To be done 2005

finish parking area (still needs more gravel) signs (major signs done, need small entrance sign) benches (gate, box/orchard corner, foundation), map kiosk with additional "trail" sign observation platform map/flier to be distributed at kiosk

encourage use as educational lab/museum/classroom

Projects so far:

Environmental Geology class project 1998; Wildlife management class project 2001, others to be invited
One honors thesis; one masters project; one elementary/middle school project (on-going)
Public walk fall 1999; Hampshire Bird Club walk spring 2001; RGT walk spring 2002, RGT peeper walk 2004, HBC and RGT bird walks 2005
Photographers escorted to meadow (returned on their own): John Green (fall 2000), Jonathan Sherrill (fall 2004), Gerry Weinstein (spring 2005)

Consider other ways to bring groups/individuals to meadow

have ELM serve as "shining example" of what RGT/land trusts can do walking the fine line between encouraging use and inviting over-use

4. Goal: Make ELM a benefit to RGT, not a drain on resources (finances/energy)

organize volunteers (adults/students) for variety of projects without taking time/energy from other RGT projects look for ways to minimize maintenance costs (mowing, other machine work) look for funding when necessary without competing with other RGT needs (Field Ponds grant, WHIP grant through 2007) use ELM as part of "corridor thinking" as we explore conservation restrictions/other avenues of protecting/conserving Leverett land.

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East Leverett Meadow, March 2010

This list based on past year's goals. Italics to provide background information.

1. Goal: to understand present use of meadow and edges by plants/animals through multi-year inventories.

All work done by volunteers except Bobolink surveys which are difficult to do and necessary to insure that we had accurate information for appropriate environmental preservation of habitat. Excel database presently kept by Mary Alice Wilson.

- a. birds: primarily Harvey Allen, Dottie Case, Deedee Minear, Mary Alice Wilson, Steve Weiss (begun 2000, on-going, volunteers); Outside consultant conducting Bobolink survey (Aaron Eilers then Molly Hale, Field Ponds)
- b. butterflies: Harvey Allen, Dottie Case, Deedee Minear, Judy Smith (begun 2000, ongoing, volunteers). Dragonflies not done.
- c. herbaceous plants: Karen Searcy (begun 2001, volunteer, has not be re-done except for identifying invasives.)
- d. woody plants: Bill Healy, Karen Searcy, Bill Wilson (1997, re-done 2001, volunteer, only re-done for invasives)
- e. turtles, snakes, frogs: only done casually with other inventories
- f. mammals: 2001 Laura Dyjak (student) small mammals, done casually with other inventories.
- 2. Goal: maintain and/or enhance habitat for plants/animals using on-going inventory data

1997: developed first 5-year plan, ending fall 2002 fall 2002: complete second five-year plan, ending 2007 (end of WHIP grant) LIP grant: 2009: re-seeding west half of meadow

- a. meadow goal: manage for grassland birds, butterflies, turtles, mammals, grasses-sedges
 - keep loop trail clear with mowed path (volunteers), stakes, and introductory signs (Field Ponds)

late-summer mowing to maintain grassland (WHIP grant), 2010+ mowing time that best combines critter protection and financial support for selling hay still being discussed.

liming of those area of meadow needing treatment (WHIP grant) re-seeding western half 2009 (LIP grant) (sedges may no longer be in northwest section of the meadow)

b. edge habitat goal (there are a number of different habitats around the edges): manage for shrubland/forest birds, butterflies, reptiles/amphibians, mammals, plants

selective cutting/removal of undesirable wood plants (on-going, WHIP and annual volunteer work parties) liming of goldenrod patches (WHIP)

possible future planting of food and shelter-providing shrubs

3. Goal: encourage use/enjoyment by public

a. honor traditional uses
 hunting allowed with safety zone (no pheasant stocking on property)
 snowmobiles allowed as long as sufficient snow/frozen ground
 path maintained through mowing (volunteer)

- b. provide clear rules so no bad feeling
 - trail signs and clear trail
 - no dogs in nesting season
 - initially plan for metal gate at back entrance, but no longer partying and so no need for gate. However logging may bring issue back.
 - keep area clean of trash especially by road so dumping not encouraged (has been done, but not much of a problem)
 - neighbors allowed ATV use between house and commercial garden on-going issue
- c. enhance physical access/arrangements

parking area: gravel then wood chips (one load paid for, rest donated by town, power company). Another load needed bridge (Americorps) establish loop trail into and around meadow, now pay neighbor to mow signs (2 large plastic/composite 1 metal (Field Ponds) benches (entrance, near pond, foundation), flier available at events planned: kiosk at beginning of meadow would have fliers, information

d. encourage use as educational lab/museum/classroom

Environmental Geology class project 1998; Wildlife management class project 2001, two recent UMass wildlife class visits

One honors thesis; one masters project; one elementary/middle school project Public events: walk fall 1999; Hampshire Bird Club walk spring 2001; RGT walk spring 2002; RGT peeper walk 2004; HBC and RGT bird walks 2005; work party 2005, 10th anniversary celebration 2007, work party and Kestrel Box placement, 2008; release of re-habilitated American Kestrel 2009.

- Professional photographers escorted to meadow (returned on their own): John Green (fall 2000), Jonathan Sherrill (fall 2004), Gerry Weinstein (spring 2005)
- e. have ELM serve as "shining example" of what RGT/land trusts can do walking the fine line between encouraging use and inviting over-use

publicize ELM by offering activities as part of RGT

- 4. Goal: Make ELM a benefit to RGT, not a drain on resources (finances/energy)
 - a. organize volunteers (adults/students) for variety of projects without taking time/energy from other RGT projects
 - b. look for ways to minimize maintenance costs (mowing for hay, other machine work)
 - c. look for funding when necessary without competing with other RGT needs (Field Ponds grant, WHIP grant through 2007, LIP grant 2009)
 - d. use ELM as part of "corridor thinking" as we explore conservation restrictions/other avenues of protecting/conserving Leverett land. (Most recent examples: Cheyette

CR and helping ConCom with the Woodward land linking 4-H Forest and Gordon King Life Estate to the north.)