

**Community Preservation Committee  
Town of Lincoln  
Project Submission Follow-up Information  
January 30, 2008**

**Project Name:** Management of Invasives on Conservation Land

**Submitted by:** Tom Gumbart, Conservation Director  
[gumbart@lincolntown.org](mailto:gumbart@lincolntown.org) 781-259-2612

**Town Committee:** Conservation Commission

**Project Description:** This project is now called “Management of Invasives on Conservation Land” rather than “Invasive Plant Management on Conservation Land”. The trigger for this was the recent interest the Conservation Commission has taken in saving some of our most cherished stands of Hemlock trees from the invasive insect the hemlock woolly adelgid. Prompted by a recent New Yorker article on hemlock trees and the woolly adelgid the Commission wanted to learn more. We had a Conservation Coffee event discussing control methods of the hemlock. This is a non-native insect from Asia that is similar to an aphid and it specifically attacks our eastern hemlock trees, ultimately killing them. So now we are proposing to include this invasive insect to our original proposal of battling invasive plants. This makes sense because if we lose our hemlock trees invasive plants will take over the habitat.

Hemlock stands are an important part of our woodland fabric. These trees create unique environments and their loss would certainly be a loss for all of Lincoln’s residents. With this proposal we are focusing on the Codman Hemlock Grove that lies along the Iron Horse Trail between the Lincoln Station and Concord Road (just south of the RR tracks). There are about 165 trees to treat in this stand, some more than 160 years old. The only viable treatment at the landscape scale at this time is root injections of Imidacloprid, an insecticide that is a synthetic nicotine. The material is absorbed into the tree and then kills the adelgids. This is a safe product that has no known adverse impacts on mammals.

The hemlocks in the stand are infested heavily with the Hemlock Woolly Adelgid and the health of the trees has steadily declined in recent years. However, with treatment the trees are able to survive and even exhibit regeneration where branches were previously defoliated. There is current research into biological control of the adelgid with insect predators from Asia and hopefully in the future one or more of these will replace chemical control as the means of protecting our hemlocks.

To be effective there needs to be two consecutive years of treatment and then probably one every other year. The cost for one annual treatment is approximately \$12,000 and

the Commission believes this is a worthwhile investment for preserving a distinct part of Lincoln and New England's natural heritage.

The goal of the invasive plant aspect of this project is to preserve and restore native woodland and meadow habitat by removing non-native invasive plant species from Lincoln Conservation Lands. This is not routine maintenance but a real focused effort to target these disruptive plants that are a true threat to the ecological integrity of our common open space. In Lincoln there is a serious problem with invasive plants that was recently highlighted by the Invasives Summit held by the Garden Club, Land Trust, and Conservation Commission. We need to make inroads against this tide of plants to protect our lands for future generations.

Targeted plants include oriental bittersweet, glossy buckthorn, phragmites, Japanese knotweed, black swallow-wort, garlic mustard, and others. The primary cost of this part of the project is for seasonal labor. We expect to hire one supervisor and one worker under that supervisor. Other costs are for equipment, plants, and vehicle rental. Most of their efforts will be dedicated to removal and control of these plants. However, we will also have these workers inventory the hemlocks throughout Lincoln's conservation land and assess their health. The crew's work will be coordinated by the Conservation Department staff but once trained they will be able to function independently.

We are planning to concentrate efforts on three of our large parcels: Mount Misery, Flint's Pond, and Tanner's Brook. This will ensure that these lands receive extensive attention rather than small scale attempts at invasives control. However, there will also be satellite populations of invasive plants where new infestations are starting that need immediate attention. This is particularly true for Japanese knotweed and black swallow-wort. So there will be localized efforts outside of the three primary control sites.

Success will be fairly easy to determine in the Hemlock Grove by assessing the health of the tree canopy. For the invasive plant work it is more difficult to quantify the level of success our planned work will have. We will document acres covered, quantity and species removed, and any new native plantings installed. Also, a digital photo documentary will be maintained of the sites we work, with before, during, and after photos. Certainly any invasive remove and control we undertake will have positive results and we will make these results available to the public with reports and newspaper articles.

The Conservation Commission is not looking to have this overall project be an annual request to the CPC. For the hemlock treatment we will look for other funding mechanisms, including the Codman Trust and other possible grants. However, it is possible we will be back to make sure there is funding for a second year of hemlock treatment to ensure the early success of that project. Hopefully this project can become a model for work on other hemlock stands in Lincoln and the greater region.

We expect to make good headway on invasive plant control and we will assess our success and look for alternative funding for future work projects of this sort. Funding from the CPC is for this first year pilot program.

I am also including a document compiled from the website [www.communitypreservation.org](http://www.communitypreservation.org) dedicated to the Community Preservation Act in Massachusetts. This includes information guiding the use of CPA funds and a list of projects that were approved by other communities involving invasive species management, field edge work, and planting. Hopefully this will provide some background supporting our proposal by showing that funding this type of project is an acceptable use of CPA money.

**Time Frame for Project:** Spring 2007 through September 2007. The supervisor would be hired early and stay later than the other staff who would likely be a local High School or College student. Ideally the hemlock treatment could be done this spring to give the trees a reprieve as they enter the growing season.

**How does project help preserve Lincoln's character?** Much of Lincoln's character is rural in nature and it can be defined by open field vistas bound by historic stone walls or by forest with majestic canopy trees. Alien vines, shrubs, and groundcover expand annually and threaten our rural character. We can help change this trend by addressing this problem head on with a crew that is dedicated to this issue. We will not eliminate the problem but we should be able to make some serious headway in the right direction. Keeping the Codman Hemlock Grove alive keeps a truly unique ecosystem intact and hopefully healthy for generations.

We thank you for your efforts in reviewing this and the other proposals and please do not hesitate to contact any of the Commissioners or myself for further discussion or clarification.

**Funding Requirements: Total = \$31,000**

Note: This is \$3,000 more than previously requested. We scaled back the summer crew proposal from three staff to two but we still need additional funding to allow for the hemlock treatment and Town hemlock inventory.

**Question:** *Would it be okay to use CPA funds for ADA improvements to open space (i.e. adding a handicap parking spot, ramps, etc)?*

**Answer:** If the property was acquired using CPA funds, the improvements are probably fine as rehab./restoration. If not, then **the improvements would need to be justified as preservation of open space or rec. facilities, which is narrowly defined to mean protection from harm or injury.** Whether or not a good argument can be made that the improvements constitute preservation will depend on the particular facts, but, as a general matter, ADA improvements like adding a handicapped parking space or adding a new access ramp will probably be difficult to justify on grounds that they protect the open space or rec. facility from harm or injury.

- **No Maintenance.** CPA funds cannot be used for routine maintenance of existing facilities. For example, communities cannot use CPA funds to maintain a municipal park (such as mowing the lawn, emptying trash barrels or dumpsters, etc.) or to maintain a historic town hall (cleaning the common areas or paying for utilities, etc).

With regard to permissible purposes for which CPA funds may be spent on open space, the Act specifically provides that CPA funds may be expended for "... *the acquisition, creation, and preservation of open space...and for the rehabilitation or restoration of such open space...that is acquired under the CPA.*" The following are examples of the types of open space expenditures that may be carried out under the CPA:

#### **Acquisition**

- Purchase land to protect water supplies such as well fields, aquifers, recharge areas, and lake or reservoir frontage and other watershed lands

#### **Creation**

- Raze aging, vacant, municipally-owned building to create an open field
- Reconstruct a road to create a median strip with grass and trees
- Rehabilitate and/or redevelop brownfields such as capping a landfill and converting site to open space

#### **Preservation**

- Purchase permanent conservation or agricultural preservation restrictions to protect open space or farmland from future development
- Remove invasive plant species from ponds and wetlands to protect existing open space environment and wildlife habitats from harm or injury
- Purchase of easements to protect water supplies such as well fields, aquifers, recharge areas, and lake or reservoir frontage and other watershed lands

#### **Rehabilitation and Restoration**

- Restore natural areas such as wetlands or marshlands acquired using CPA funds to their original state
- Seed and plant trees and otherwise landscape an open space created by the removal of buildings on site.

## Community Preservation Act Project Description

**Municipality:** Georgetown

**Year:** 2005

**Type:** Open Space

**Amount:** \$ 45,000.

**In watershed:** No

**Involves Bonding:** No

**Description:** *Fanwort (a non-native species of invasive plant) has once again become a problem in Pentucket Pond. Once the infestation and plant distribution is confirmed, a plan for remedial action will be made. This will involve treating the entire pond with Flouridone, a aquatic herbicide.*

## Community Preservation Act Project Description

**Municipality:** Weston

**Year:** 2005

**Type:** Open Space

**Amount:** \$ 20,000.

**In watershed:** No

**Involves Bonding:** No

**Description:** *For preservation of 2-3 of the 36 historic town-owned fields - to remove invasive plants to restore the open space back to the historic stone wall boundaries and improve the viewscapes into the fields from the streets nearby.*

## Community Preservation Act Project Description

**Municipality:** Newton

**Year:** 2003

**Type:** Recreation

**Amount:** \$ 23,718.

**In watershed:** No

**Involves Bonding:** No

**Description:** *To improve 8000 sq. ft. of land in order to create Kayla's Garden, a park that will include native plants, shrubs, and trees and will be used by teachers, school staff, and students to enhance classroom curriculum and by the neighborhood to enjoy passive recreation. Also includes the purchase of a statue for the park.*

### Community Preservation Act Project Description

**Municipality:** Grafton  
**Year:** 2005  
**Type:** Open Space  
**Amount:** \$ 16,800.  
**In watershed:** No  
**Involves Bonding:** No  
**Description:** *To purchase and install aquatic weed control materials at Silver Lake Beach.*

### Community Preservation Act Project Description

**Municipality:** Bedford  
**Year:** 2005  
**Type:** Open Space  
**Amount:** \$109,000.  
**In watershed:** No  
**Involves Bonding:** No  
**Description:** *For beginning stages of the restoration of a mill pond, a waterfall, and the ruins of an old mill. A combination open space and historic preservation project.*

### Community Preservation Act Project Description

**Municipality:** Cambridge  
**Year:** 2004  
**Type:** Open Space  
**Amount:** \$150,000.  
**In watershed:** No  
**Involves Bonding:** No  
**Description:** *For restoration of the shoreline of Little Fresh Pond*

## Community Preservation Act Project Description

**Municipality:** Ashland  
**Year:** 2005  
**Type:** Open Space  
**Amount:** \$ 12,000.  
**In watershed:** No  
**Involves Bonding:** No  
**Description:** *To erect gates at 3 town forest entrances to prevent unauthorized motorized vehicle trespass; to erect bylaw regulation signage about proper usages of town forest; to construct enhanced informational kiosks.*

## Community Preservation Act Project Description

**Municipality:** Ashland  
**Year:** 2005  
**Type:** Open Space  
**Amount:** \$ 5,000.  
**In watershed:** No  
**Involves Bonding:** No  
**Description:** *To purchase and plant trees.*

## Community Preservation Act Project Description

**Municipality:** Newburyport  
**Year:** 2005  
**Type:** Historic Preservation  
**Amount:** \$ 6,100.  
**In watershed:** No  
**Involves Bonding:** No  
**Description:** *For a program to preserve historic trees in town.*

## Community Preservation Act Project Description

**Municipality:** Grafton  
**Year:** 2005  
**Type:** Open Space  
**Amount:** \$ 10,000.  
**In watershed:** No  
**Involves Bonding:** No  
**Description:** *For design and construction of interpretative signs at up to 5 areas of open space where the Town has a beneficial interest.*