Lexington Conservation

Stewardship Handbook

A volunteer project of the Lexington, Massachusetts Conservation Commission and the Lexington Conservation Stewards

Contents

1st Edition, Citizens for Lexington Conservation Commission (CLC), 2005; 2nd Edition, Town of Lexington, Conservation Stewards and Conservation Division, 2010; 3rd Edition, Town of Lexington, Conservation Division, 2015.

The first edition was prepared and funded through the non-profit organization, Citizens for Lexington Conservation (CLC). The second and third editions were funded by the Conservation Division budget.

Subject to periodic revisions as warranted. Consult the Town of Lexington website for the most up to date edition at www.lexingtonma.gov/conservation

Lexington's Rich Resources

The town of Lexington is fortunate to have more than 1,300 acres of conservation land that has been protected in perpetuity and placed in the care of the Conservation Commission. This conservation land covers over 10% of the town, an impressive figure for a community so close to metropolitan Boston. Add to that town-owned conservation land the open space that is provided under other ownership, such as Lexington's Recreation department, Minuteman National Historic Park, the Massachusetts Department of Conservation and Recreation, and Arlington's Great Meadow, and the total area of Lexington covered by open space rises to nearly 20%.

Conservation land and other open space enhances the quality of life for residents and visitors in a variety of ways. It protects the flood control capabilities of wetlands, preserves water quality in streams and ponds, protects wildlife and plant habitat, forestalls problems of overly dense land development, and helps preserve the historic character of the Town. Natural open space also provides opportunities for recreational and educational experiences that are rapidly disappearing from the suburban communities of eastern Massachusetts.

Protection of open space does not end at simply safeguarding the property from development. Protection is a continuing need involving maintenance, monitoring, and care, toward which very limited municipal and state resources are available. The Lexington Conservation Stewards was founded in the early 1980's to provide a base of citizen volunteers who could help to complement the town Conservation Division's stewardship of its natural open space, particularly town-owned conservation land. These volunteers—the Stewards—work to monitor the condition of conservation land, remedy problems when they are identified, and promote public responsibility and commitment toward our natural open space.

Canada lily growing in a meadow at Willard's Woods conservation area. Photo by Fran Ludwig.

Lexington's Conservation Stewards

Who are the Stewards?

Members of the Lexington Conservation Stewards are citizens who care for Lexington's conservation land and other natural open space. Some attend work days to help build boardwalks and restore meadows. Some carry a trash bag and pair of clippers with them when they go for a walk on a Lexington trail. Some apply for grants, help to monitor streams, or take students on educational walks through the woods. The Stewards' primary focus is on town-owned conservation land, but they contribute to caring for other open space as well. Whatever their level of involvement, Stewards are keeping an eye and a helping hand on our conservation land.

How are the Stewards organized?

The Lexington Conservation Stewards serves as a volunteer organization of Lexington's Conservation Commission, working closely with the staff in the Conservation Division office to plan and carry out stewardship activities on town-owned conservation land. They also work with other partners to steward other open space that is not under the town's Conservation Division. Individual Stewards carry out certain activities on their own, while group workdays are more suited for other projects.

A volunteer board, called the Steward Directors, oversees stewardship projects and reports to the Conservation Commission. The Steward Directors accept new members to this leadership body on a rolling basis. The Conservation Commission is the final decision-making authority for all questions related to the operations of the Stewards.

A Steward trims back invasive multiflora rose from a trail in Parker Meadow conservation area. Photo by Emily Schadler.

The Steward Directors meet approximately monthly, and their responsibilities include:

- identifying priorities and major projects
- coordinating volunteer workdays to implement projects
- recruiting and supporting other Stewards
- hosting events, producing a newsletter, and fundraising
- contributing to the Conservation Division's land management plans
- working collaboratively with other organizations on projects of mutual interest

What can individual Stewards do to help?

Some of the ways that individual Stewards can help out with the care of our conservation land are:

- Visiting nearby conservation areas often to monitor for changes or potential issues
- Picking up and properly disposing of trash that others have left behind
- Volunteering on a scheduled workday
- Pruning back branches and removing other blockages to established trails
- Notifying the Conservation Division of issues that are too big to handle personally, such as downed trees over trails, illegal dumping, and encroachment
- Serving as a primary contact person for a specific conservation area (see Appendix 2)
- Talking to friends about Lexington's conservation land and other open space

See the next section, *Guidelines for Stewardship Efforts*, for more details on these tasks.

Taking Leadership as a Steward

For those Stewards who would like to take an extra step to get more involved, there are a number of options, such as:

- **Propose ideas** for enhancements to existing conservation land (e.g. a new trail, meadow restoration) to the Steward Directors or to the Conservation Commission.
- **Lead a work day.** For projects that would benefit from a larger, organized effort, workdays can do the trick. The Conservation Division can work with you to get approval for your workday project, advertise for volunteers, and assist you in implementing an effective workday. When proposing a project, think about the number of volunteers that would be appropriate and the types of tools you would need to get the job done.
- **Lead a walk** to introduce people to your favorite area. Citizens for Lexington Conservation, which is another conservation organization in town, hosts a spring and fall walk series, through which you can lead a walk. Visit their website at: www.lexingtonma.org/clc/HomePage.htm.
- **Provide information to other visitors.** Encourage enthusiastic visitors to join the Lexington Conservation Stewards by going to the web site or contacting the Conservation Division
- **Join the Steward Directors.** Contact a current Director or the Conservation Division to find out about opportunities for joining this coordinating board.

How can I become at Steward?

It's easy, and free! To join the Lexington Conservation Stewards, visit our website at www.lexingtonma.gov/conservation/stewards.cfm. Download the membership form available there and return it to the Conservation Division at 1625 Massachusetts Avenue, Lexington, MA 02420, or contact the office directly for a membership form. Membership provides copies of our newsletters; invitations to Stewards' gatherings; email notification of upcoming stewardship events, projects, and news; and opportunities to work together with other town residents on issues of mutual interest.

Guidelines for Stewardship Efforts

Stewards can be extremely helpful in caring for our conservation lands by performing low-key maintenance on a frequent basis. Much of this maintenance can be done individually during casual walks or visits to conservation areas, while other work needs organized workdays to get the job done. This section details guidelines for the most common Steward efforts, including:

→ Trash Clean Up
→ Routine Trail Maintenance
→ Monitoring and Reporting
→ Invasive Species Removal

Trash Clean Up

It is unfortunate but true that a reliable supply of trash continues to appear in our conservation and open space area, so regular clean-ups by individuals or organized workgroups is one of the most important activities that Stewards can perform. This trash is not only unsightly, but it can also pollute water and soil and pose threats to wildlife.

Often, individual Stewards picking up trash on their own does the trick, but occasionally, trash problems are too large for individuals alone, and workdays or a report to the Conservation Division are more appropriate solutions. You can work with the Conservation Division to set up a work day.

Helpful Tools for Trash Clean Ups

- Work gloves to protect against broken glass & metal, unsanitary garbage, and thorns
- Trash bags
- Clothing that covers arms and legs to protect against thorns, poison ivy, and ticks
- Waterproof boots or old shoes if removing trash from wet areas
- An old backpack for carrying litter

Trash Disposal

→ Small amounts of trash collected by individuals can often be put out with the Steward's weekly trash pick up. On workdays, if a small number of bags of trash is collected, the volunteers can often distribute the bags among themselves to be left at their curb for weekly pickup.

→ For larger amounts of trash, contact the Conservation Division to schedule a pick-up by the Town. When possible, move the trash to the side of a nearby truck-accessible road and pile it so that it is not an inconvenience or danger to visitors and neighbors.

→ When very large amounts of trash are anticipated, the Conservation Division may be able to arrange to have a dumpster delivered to the site for the workday, so that collected trash can be deposited directly in the dumpster.

Hazardous Materials

Hazardous materials (hazmats) are materials that can harm people or the environment. Many familiar hazmats can be removed by volunteers if done carefully to prevent spillage. If fresh leakage is evident, if you are in doubt about what to do, or if you encounter unfamiliar materials, mark and record the location of the item and contact the Conservation Division. Some familiar hazmats include:

- Household pesticides and fertilizers
- Paint
- Batteries
- Oil filters
- Oil containers
- Heating oil tanks
- Refrigerators and air conditioners

Stewards remove a dumped golf cart from Cranberry Hill conservation area. Photo by Jessica Hansen.

Routine Trail Maintenance

Lexington is home to more than 60 miles of trails, and keeping these trails clear so that visitors can use them comfortably is an on-going task. Some trails may only need to be pruned and cleared once per year, but others need more frequent maintenance.

Routine trail maintenance tasks include:

→ Clearing downed trees and limbs that block established trails or pose a safety hazard

→ Pruning/trimming vegetation that overhangs trails

→ Mowing meadow trails

→ Trimming vegetation around signs and kiosks so that they are clearly visible

→ Reporting chronically wet trails to the Conservation Division

→ Report other trail-related issues

Singletrack trail leading up a forest knoll. Photo by Emily Schadler.

What should I know before I maintain a trail?

- **Don't build new trails, however "small".** Trails need to fit into a larger plans for the conservation area and need proper planning themselves to be sustainable. If you have a new trail idea, contact the Conservation Division or a Steward Director to discuss it. The creation cycle of a new trail is typically about one year.
- **Don't open up** a heavily overgrown or blocked trail until you have confirmed with the Steward Directors or Conservation Division that the trail is not closed.
- **Don't rake trails.** Leaves, pine needles, and other organic matter build forest soil, absorb water, and prevent erosion. Leaving them in place helps the trails to last over the long-term.
- **Don't mark or blaze trails.** All trail marking must be approved by the Conservation Division.
- **Don't dump fill or wood chips** on trails without permission from the Conservation Division.
- **Don't apply herbicides or pesticides** anywhere on town-owned land. On municipal land, law dictates that these chemicals must be applied by a certified applicator and only with appropriate permits.

→ Monitoring trails to ensure that new ones are not being created without permission and that closed trails remain closed

Permission
For light pruning/trimming and removal of downed limbs or trees across trails, Stewards can proceed without seeking approval from the Steward Directors or Conservation Commission, as long as the trail is on a conservation area (if questionable, please contact the Conservation Division). For larger projects, such as creating new trails, Stewards should contact the Conservation Division to discuss the project.

Trail Appearance
A well-maintained trail should look natural, with few visible cuts on bordering vegetation. All cut branches and brush should be moved well off the trail with the cut end pointing away from the trail.

Trail Width and Height
Trails should generally be trimmed to the following widths from ground level to the highest overhead reach while standing on the ground:

- Singletrack with normal trailside vegetation: 4 feet (both elbows outstretched)
- Singletrack if trailside vegetation is thorny, allergenic (poison ivy), rapidly growing, or invasive: 6 feet (both arms outstretched)
- Doubletrack minimum: 8 feet
- Doubletrack for easy passage of any sized service vehicle: 11 feet

Better visibility around curves reassures users about what is ahead and reduces conflicts between visitors. For example, faster traffic can slow down when approaching slower traffic. By selectively pruning growth on the inside of curves, good visibility can be maintained without overly widening trails.

Intersections are a common stopping point for visitors to rest, navigate, or socialize and should be trimmed wider than trails to accommodate these needs and reduce conflicts involving faster traffic.

So trails will remain passable all winter, overhead clearance should be as high as can be achieved by workers standing on the ground (approximately 8 feet) to allow for deep snow cover and branches weighted down with snow and ice.

Helpful Tools for Trail Maintenance

- Folding hand saw and pocket pruners
- Heavy duty loppers
- Rake to remove cut stems from the trail
- Old hand saw to cut saplings close to the ground without dulling a new one with soil/sand
- Pole pruner to cut overhead braches
- Work gloves
- Clothing that covers arms and legs to protect against thorns and poison ivy

Removing Blowdowns
Blown down trees and limbs should be removed as soon as possible from trails where they present a hazard of falling on visitors or block the trail in such a

Pruning Hints

When pruning vegetation along a trail, the most important rule of thumb is to leave as little evidence of the pruning as possible. The goal of pruning should be a trail that is free of protruding branches and looks natural. Debris from pruning—twigs, branches, and leaves—should be moved off of the trail so that no sign of the job remains.

A bounty of information on proper pruning practices can be found in books and online; the following is just a brief primer on the subject.

Why Pruning Technique Matters

Pruning the branches of trees and shrubs must be done properly so that the cuts heal correctly and do not impact the plant's health. Improper cuts can lead to disease and even death of the plant.

Proper pruning cuts are made only where one branch or twig attaches to another (called the node), never along the length of the branch. The area of the plant where a branch meets a trunk or other branch is called the branch collar. The raised bark that develops in this crotch is called the branch bark ridge (see figure 1).

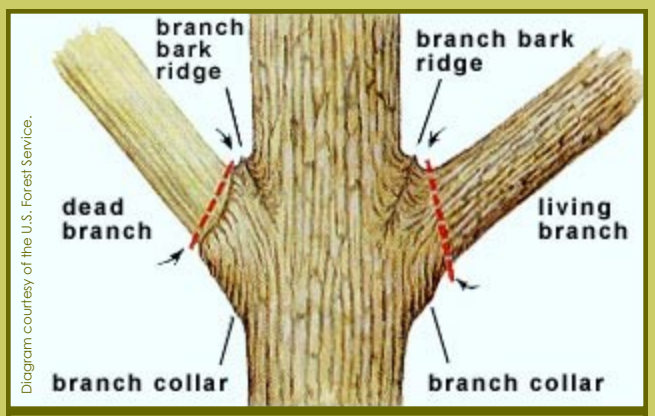


Figure 1. Branch collars and branch bark ridges.

Cuts into either the branch collar tissue or the branch bark ridge tissue will not heal properly, allowing for diseases to enter and threaten the plant's health. Cuts that leave too much of a stub also promote disease. Proper pruning, made at the node but not entering into the branch collar tissue or branch bark ridge, allows tissue to grow over the cut, eventually walling off the wound with a protective layer of bark.

Proper Cuts

When pruning large or small branches, cuts must be made *outside* of the branch bark ridge and branch collar area, angling away from the trunk but staying as close as possible to the collar. This leaves a smaller cut but no stub. There is no standard angle for a proper collar cut, but the final cut should:

- Minimize the branch stub
- Leave the branch bark ridge and branch collar intact
- Minimize the overall size of the pruning wound

When cutting smaller branches, make the cut as close as possible to the trunk (or larger branch) but outside the branch bark ridge (see figure 2).

For large limbs, stub cut the branch, a technique that minimizes the chance of the bark tearing down the trunk and creating a wound that is difficult to heal (see figure 3). Stub cutting uses three cuts, the first two cutting off most of the branch but leaving a portion of 1-2 feet remaining for the final finish cut.

Figure 2. Cutting a small branch.

Figure 3. Stub cutting a large branch.

The **first cut** undercuts the branch 1-2 feet out from the parent branch or trunk. This cut eliminates the chance of the branch peeling bark as it is removed. The **second cut** is the top cut, which is usually made slightly further out on the branch than the under cut. This allows the branch to drop smoothly. The **third or finish cut** removes the stub. The finish cut should be made outside of the branch bark ridge and branch collar areas, leaving a smooth surface with no jagged edges or torn bark. Use tools that are sharp enough to cut without tearing.

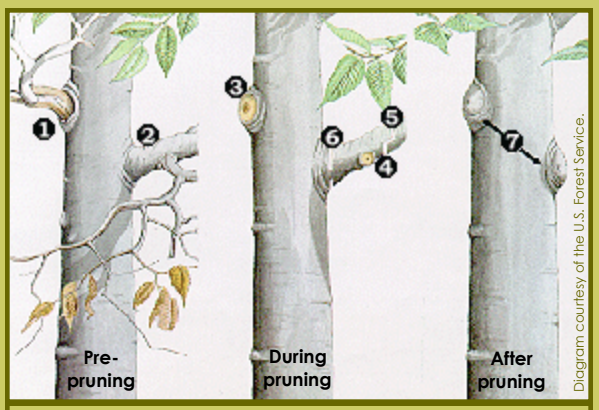


Figure 4. Proper pruning technique results.

Pre-pruning

1. Dead limb
2. Live limb

During pruning

3. Properly cut dead limb, flush with trunk or adjoining limb
4. First stub cut —undercut to prevent limb breakage
5. Second stub cut—top cut to remove branch
6. Third stub cut—to remove the remaining stub

After pruning

7. Branch stubs flush with the trunk and are healing through callus formation

Do Not Paint Cuts

Painting pruning cuts with wound dressing is not advisable. Wound dressings have been found to promote rather than prevent wood decay.

Proper Timing

The ideal times to prune most woody plants are in late winter or early spring (February, March, early April) or well into the growing season. Cuts made during the growing season may attract insects that carry diseases or allow fungus invasion. Avoid pruning when buds are opening and during early leaf season.

Visitors enjoy a stroll down a well maintained trail along Munroe Brook. Photo by Emily Schadler.

way that would encourage visitors to create new trails around them. Cut deadwood should be left to decompose near where it fell but off the trail. Blowdowns that are not hazardous and do not completely obstruct very rugged trails can be left in place if they contribute to the character of the trail.

Safety During Trail Maintenance

While working on trails, the following guidelines should be followed:

- Thorny cuttings should be scrupulously removed from the trail to protect dogs, small children, and bicycle tires.
- Saplings should be cut as close to ground as possible to avoid creating tripping hazards.
- Limbs should be cut back to the main trunk or branch whenever possible to reduce the risk of visitors injuring themselves on protrusions.
- When not in use, sharp tools (saws, pruners, etc.) should be kept away from the trail, in a visible location, and with the sharp edge covered to safeguard against accidents.

Monitoring and Reporting

Many Stewards are regular visitors to Lexington's conservation land and therefore can serve a look-outs for those areas. In this way, monitoring combines outdoor recreation with practical public service. Your monitoring reports can provide information that the Conservation Division or police couldn't collect alone.

Monitoring is a simple task. On your normal visits to conservation areas, take note of any observations you make (see *What to Look for When Monitoring* sidebar), include a precise location description, and submit them to the appropriate office (see *Who to Report* To below). Often, a photograph is also helpful for describing the report.

Who to Report To

Contact information for the agencies listed below are available in Appendix 1 (page 18). In general, follow these guidelines for deciding who to report your observation to:

- For urgent safety-related emergencies, call 911.
- For non-emergency illegal activity in progress (such as partying or unauthorized tree-cutting), contact the police or fire non-emergency line and follow up with a report the Conservation Division.
- For other observations (such as dump sites, encroachment, etc.) contact the Conservation Division.

How to Report

When reporting to 911 or the police or fire non-emergency lines, a phone call is the best way to report. When reporting to the Conservation Division, use phone, email, or paper mail, depending on which you find most convenient.

What to Look For When Monitoring

→ Unusual changes in natural or human-made features

→ Unusual wildlife, plants, or other notable natural features

→ Evidence of illegal or illicit activities, such as underage drinking, fires, unauthorized motor vehicles, hunting or trapping, shooting, or disposal of pollutants

→ Emergency situations, such as personal injuries or crimes in action (you will rarely see these, but please report them immediately to 911 when you do)

→ Improper cutting or destroying of vegetation (pruned trails, as described in the previous section, are OK)

→ Large deposits of trash or landscaping debris

→ Vandalism

→ Digging of holes

→ Any type of construction

→ Encroachment onto conservation land by neighboring properties

→ Overgrown trails that you cannot trim yourself

→ New trails being created

→ Broken boardwalk sections

→ Trails that are chronically wet or muddy outside of the spring wet season

→ Other issues that you consider to be worth reporting

Invasive Species Removal

Invasive species pose significant threats to the habitats in Lexington's fields, forests, and wetlands. Invasive species are plants, animals, or other organisms that:

1. are non-native (or alien) to the ecosystem under consideration and
2. whose introduction causes or is likely to cause economic or environmental harm or harm to human health (National Invasive Species Information Center, www.invasivespeciesinfo.gov/whatis.shtml).

The Lexington Conservation Stewards work to control invasive species by eliminating them where possible and limiting their expansion where elimination is impractical. In most cases, these are not easy tasks. Removal efforts are labor intensive and often require repeated efforts over a few years. Removal always need to be followed up by monitoring and, in some cases, planting of native species or other forms of restoration. Invasive species-related efforts take planning and diligence, but they are extremely important efforts for native biodiversity.

In this section, we focus on three of Lexington's most pervasive invasive species: Garlic mustard (*Alliaria petiolata*), Japanese knotweed (*Fallopia japonica*), and Oriental bittersweet (*Celastrus orbiculatus*). This is not to say that other invasive species do not exist in Lexington—they do, and in great number (Multiflora rose, Japanese honeysuckle, European and Glossy buckthorn, Burning bush, Japanese barberry, Norway maple, and Tree-of-Heaven are but a few). Many resources are available for identifying and recommending control methods on the various invasive species in Massachusetts. For more resources on invasive species, see Appendix 3, Recommended Resources.

Before You Start an Invasive Species Removal Project

→ Herbicides and pesticides **cannot** be applied on public land unless the applicator has a license and application has been approved by the Conservation Commission.

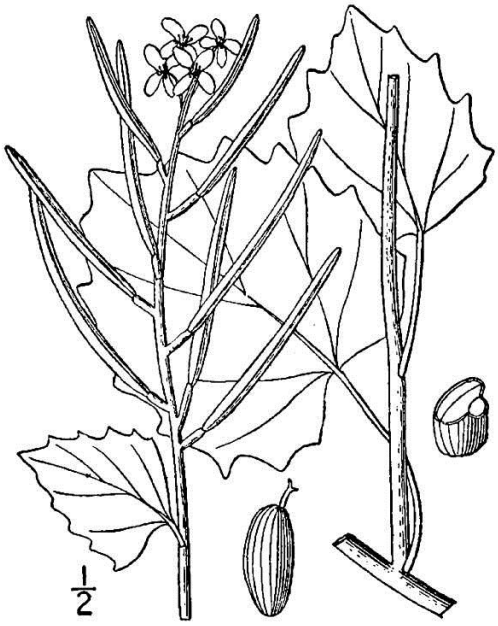
→ In order to remove invasive species from a wetland, you first need to get approval from the Conservation Commission, because removal can cause erosion into the wetland.

→ Do not undertake an invasive species removal project unless you can commit to following up for a few years. In some cases, a single cutting of invasive species can actually stimulate growth, making the problem worse. Repeated cuttings over a few growing seasons can weaken and eventually kill the plant.

→ Plan for proper disposal. Most invasive species can re-sprout or re-seed themselves after being cut or pulled if they are left outside. Invasive species debris needs to be disposed of in closed plastic bags or burned on site (for burning options, contact the Conservation Division).

→ To avoid mistakes, learn to identify your invasive species well and check to see if there are similar-looking native species to the invasive species you want to tackle before you begin removing it.

Garlic Mustard (*Alliaria petiolata)*



Plant description: Garlic mustard is a biennial herbaceous plant with first year plants setting small rosettes of leaves that lie close to the ground and often go unnoticed. Second year plants raise their flower stalks to set seed and are most recognizable. Flowers are small and white. Leaves have large, noticeable teeth. Crushed leaves smell garlicky.

Where it grows: Moist, shaded soils and disturbed areas.

Threat: Many native spring wildflowers, such as spring beauty, wild ginger, bloodroot, Dutchman's breeches, hepatic, toothwort, and trillium, are suppressed by garlic mustard.

Mechanical control methods: Remove garlic mustard in the spring from mid-April until late May, when pulling the plant by the roots is easiest as the soil is typically moist from spring rains. Removal in the spring also catches the plant before it has flowered and before seeds can be dispersed. Grasp the plant at the base of the stalk and gently pull the roots from the ground. With practice, the whole root is easy to remove. Be sure to pull the root even if the flower stalk breaks off, as garlic mustard can generate new growth from imbedded roots. When clearing an area, remove every specimen that is visible. Leaving only a few plants will generate enough seed to repopulate a cleared area the following season. If first year growth plants are noticed during removal of the second year plants, it is often best to leave them until the following season. The root structure of the first year plants is not as robust, often resulting in removal of the leaf rosettes only, leaving the roots in the ground. Dispose of at least the roots and flower heads in plastic bags (the stems can be left to decompose if necessary).

Japanese Knotweed (*Fallopia japonica*)

Plant description: Japanese knotweed is a familiar bamboo-like perennial, often growing to more than 10 feet tall in dense stands. Its stems are hollow and its flowers are tiny and greenish-white. It spreads via rhizomes, making it particularly hard to eradicate.

Where it grows: Near water, in low-lying areas, waste places, and disturbed soil.

Threat: Forms tall, dense stands particularly in riparian areas, where it can often survive flooding that other native plants do not. Very difficult to stop from spreading.

Mechanical control methods: Attempting to uproot the plant is not advised, as even small pieces of the rhizomes are capable of regeneration. The best method for mechanical control is to cut the plant to the ground every time it grows more than 1-2 feet high. When cutting the stalks, cut flush with the ground, leaving no protruding stumps. Another strategy involves laying black plastic over the cut stems to deprive the plant of light, but projects of this type can be more complicated and should be approved by the Conservation Division first.

Oriental Bittersweet (*Celastrus orbiculatus*)

Plant description: Oriental bittersweet is a vine that is most recognizable by its berries, which open from orange to red as they ripen and are sometimes favorites for creating fall wreaths. The vine is vigorous, can bring down trees, and blankets areas where it invades, often mixing with multiflora rose and poison ivy.

Where it grows: Forest edges, woodlands, fields, and disturbed areas.

Threat: Kills trees and topples them. Threatens to completely displacing native American bittersweet.

Mechanical control methods: Young vines can be uprooted by hand with care to pull out as much of the root as possible. The uprooted vines can be dispersed in the surrounding underbrush to decompose. Return visits to the cleared area later in the season and for the following 2-3 years are necessary to determine if all root stock has been eradicated.

Older, woody plants that have succeeded in climbing nearby trees should be cut at the base. Then, cut the climbing vines up as high as you can reach, but leave the remaining vines that have climbed into the tree canopy in place, as pulling them down can damage the tree. Disperse the cut vines in the adjacent undergrowth for decomposition. The root stock will re-sprout, often in the same season, if cut before late summer/early fall. If cut in the fall, they will re-sprout the following season. Repeat visits are necessary to continue cutting back the new growth and eventually depriving the main root stock of any remaining ability to regenerate.

Appendix 1: General Contact Information

General contact information for the Lexington Conservation Stewards:

updated April 2021

Contact	Phone	Email address
Lexington Conservation Stewards	781-698-4532	landstewards@lexingtonma.gov
Lexington Conservation Division	781– 698-4531	landstewards@lexingtonma.gov Conservationcomm@lexingtonma.gov
Conservation Administrator —-Karen Mullins	781- 862-0500 x 84501	kmullins@lexingtonma.gov
Conservation Coordinator-Amber Carr	781- 862-0500 x 84505	acarr@lexingtonma.gov
Conservation Land Use Ranger– Adam Green	781-589-7220	agreen@lexingtonma.gov
Lexington Police (non-emergency line)	781-862-1212	
Lexington Fire (non-emergency line)	781-862-0271	
Emergency	911	

All mail for the Stewards should be addressed to:
Lexington Conservation Stewards
c/o Town of Lexington Conservation Division
1625 Massachusetts Avenue
Lexington, MA 02420

Lexington Conservation Division general website:
www.lexingtonma.gov/conservation/2008.cfm

Lexington Conservation Stewards website:
www.lexingtonma.gov/conservation/stewards.cfm

Appendix 2: Site-specific Contact Information

Conservation Area	Lead Steward	Contact Information
Cataldo Reservation	Holly Samuels	hollygardendesign@gmail.com
Chiesa Farm	David Williams	williams.dg@comcast.net
Cranberry Hill	Paul Knight	Paul.the.knight@gmail.com
Daisy Wilson	Steve Wallis, Bonnie Newman, Michael Hurt	s.wallis226@gmail.com; bjnewman@rcn.com; mghurt45@gmail.com
Dunback Meadow	Bonnie Newman, Robert Hausslein, Barbara Katzenberg	Bjnewman@rcn.com; rhausslein@rcn.com; barbara.katzenberg@gmail.com
Hayden Woods/ Waltham Farm	Tom Whelan; Mike O'Connor	Tom@whelanphoto.com; mike.oconnor59@verizon.net
Idylwilde	**NEED**	
Joyce Miller's Meadow	Mike Tabaczynski; Paul Flaherty	mjtpub@gmail.com; paulflaherty2@gmail.com
Juniper Hill	Tom Whelan	Tom@whelanphoto.com
Katahdin Woods/ Tophet Swamp	Paul Knight	Paul.the.knight@gmail.com
Liberty Heights	Lucy Ticknor (DAR) Chris Smith	lucyticknor@comcast.net cdsmith_inc@yahoo.com
Lower Vine Brook/Leary Property	Keith Ohmart; Andy Friedlich; Peter Johnson; Holly Samuels	kohmart@verizon.net; ajfriedl@aol.com; Peter.Johnson@skanska.com; hollygardendesign@gmail.com
Meagherville	Mike Tabaczynski Bill Kormos Jan Avallone	mjtpub@gmail.com; wkormos@gmail.com; jan@metaprosystems.com
North Street	Keith Ohmart	Kohmart@verizon.net;
Paint Mine	Bob Mason; Carolyn Levi;	rfmason3@verizon.net; imecarolyn@mac.com;
Parker Meadow	**NEED**	
Poor Farm	Lisbeth Bornhofft Jan Avallone	Lbornhofft@gmail.com; jan@metaprosystems.com
Shaker Glen	Keith Ohmart; Andy Friedlich; Sean Cooper	kohmart@verizon.net; ajfriedl@aol.com; scooper3098@gmail.com
Simonds Brook	Mike Tabaczynski	mjtpub@gmail.com

Conservation Area	Lead Steward	Contact Information
Sutherland Woods	Judith Glixon; Stephen Perkins	jglixon@verizon.net; 14baker@gmail.com
Turning Mill Pond	David L. Kaufman; Charlie Wyman	Davidlkaufman@rcn.com; cdwyman66@gmail.com
Cotton Farm/Upper Vine Brook	Bob Hausslein, Gerry Paul, Jeff Howry	rhausslein@rcn.com; gerryp@bu.edu; jchowry@hotmail.com
West Farm	William (Ed) Bicknell; Ira Bernstein	webicknell@verizon.net; iratunes@gmail.com
Whipple Hill	Mike Tabaczynski	mjtpub@gmail.com
Willards Woods	David L. Kaufman	Davidlkaufman@rcn.com
Wright Farm	Don Grant, Mike Tabaczynski, Carol Reynolds	dgrantlex@comcast.net; mjtpub@gmail.com; carolannbenoit@aol.com
Other Conservation Areas		
Arlington's Great Meadows	Mike Tabaczynski	mjtpub@gmail.com
Western Greenway/Lot 1	Laurel Carpenter	lcarp@rcn.com
Shade St Conservation Restriction	Tom Whelan	Tom@whelanphoto.com

Appendix 3: Recommended Reading

Trail maps: Trail Guide to Lexington Conservation Land is available for purchase ($10) at the Conservation Division office, Cary Memorial Library, and the visitors center. Additional maps for Lexington conservation land are available at www.lexingtonma.gov/conservation/conland.cfm

Trail Solutions: IMBA's Guide to Building Sweet Singletrack.
International Mountain Bicycling Association, published in 2004.
www.imba.com/catalog. The most state-of-the-art general trail book available.

Trail Construction and Maintenance Notebook.
USDA Forest Service No. 0023-2839-MTDC-P, updated in 2007.
www.fhwa.dot.gov/environment/fspubs/07232806/index.htm. The book to read if you can only read one.

Wetland Trail Design and Construction.
USDA Forest Service No. 0123-2833-MTDC, published in 2001.
www.fhwa.dot.gov/environment/fspubs/01232833/. Wide range of wetland structure information.

Part 2 Designing Sidewalks and Trails for Access.
US DOT, FHA Publication No. FHWA-EP-01-027, published in 2001.
www.fhwa.dot.gov/environment/sidewalk2/. Good insight on how to keep open space open to all citizens.

Appalachian Trail Design, Construction, and Maintenance.
Birchard and Proudman, Appalachian Trail Conference, revised in 2000.
www.atctrailstore.org. Concise with lots of practical guidelines based on field experience.

Managing Conservation Land.
Westover, Massachusetts Society of Municipal Conservation Professionals, out of print.
Limited trail and visitor management information, but rich natural resource management information. The Conservation Division has a copy that you may be able to reference.

A Guide to Invasive Plants in Massachusetts.
MA National Heritage and Endangered Species Program, revised 2008.
www.mass.gov/dfwele/dfw/nhesp/publications/nhesp_pubs.htm. Excellent, inexpensive guide to identifying invasive species in Massachusetts.

Invasive species-related websites:
The National Invasive Species Information Center: www.invasivespeciesinfo.gov/whatis.shtml
New England Wildflower Society: www.newenglandwild.org/protect/invasive-plants
The MA Prohibited Plants List: www.mass.gov/agr/farmproducts/Prohibited_Plant_Index2.htm
The Plant Conservation Alliance's Invasive Plants Fact Sheets: www.nps.gov/plants/ALIEN/factmain.htm

Appendix 4: Tool & Equipment Use

The Lexington Conservation Stewards tools and equipment are stored at the Paint Mine Conservation Area in the Hennessey Barn; access to barn must be approved by Conservation Division staff.

All tools and equipment must be signed in and out; please communicate all tool and equipment usage to Conservation Division staff.

All power equipment usage, including drills, saws, brushcutters, hedge trimmer, DR mower, and chainsaw, must be approved by Conservation Division staff.

CHAINSAW USE-: As a safety precaution, any Steward wishing to use the Steward's chainsaw or a personal chainsaw must show evidence that he or she has completed professional chainsaw safety training and/or demonstrate their skill with the saw in the field in front of a Conservation Division staff member. Additionally, ANY STEWARD WISHING TO USE THE CHAINSAW SHALL HAVE AT LEAST ONE OTHER PERSON PRESENT AT ALL TIMES.

Appendix 5: Acknowledgement Form

I_____ have read the Lexington Conservation Stewardship Handbook and understand the role of the Conservation Steward. Further, I understand that the operation of Conservation Steward power equipment and hand tools requires the approval of Conservation Division staff and I agree to exercise a high degree of caution at all times while using this equipment. Additionally, I understand that I must have at least one other person present at all times while operating any chainsaw, both Steward-owned and personal, on Lexington Conservation Land. Moreover, I hereby release the Town with respect to any claims arising from my serving as a Lexington Conservation Steward.

Finally, I understand that as a Conservation Steward, I will be representing the Town of Lexington Conservation Division and Conservation Commission and I agree to act professionally and responsibly while fulfilling any duties in this role.

_____
Printed Name

_____
Signature

_____
Date