

Upton Conservation Commission Forest Management Policy and Guidelines

Approved June 12, 2013

The Upton Conservation Commission and Land Stewardship Committee currently manage approximately 800 acres of land. These properties include six conservation areas, Stefans Farm, and Goss Pond. The purpose of this document is to establish general goals and guidance for management of forests on these lands and on properties subsequently placed under the care and custody of the Conservation Commission. This information will guide the Land Stewardship Committee and professional foresters tasked with developing land stewardship and forest management plans for the properties.

The policy and guidelines are intended to promote ecologically, economically, and socially responsible land stewardship and forestry. Primary goals include the following:

- Manage forests to enhance wildlife habitat and biodiversity;
- Manage forests for sustainable production of timber and fuel wood;
- Encourage development of late successional forests and forests with late successional or old growth characteristics;
- Manage forests to mitigate climate change through the forests ability to sequester atmospheric carbon;
- Where possible, manage forests to enhance resilience to climate change;
- Protect surface water resources and aquifers;
- Maintain or create early successional habitat in appropriate locations;
- Utilize Best Management Practices (BMPs) to minimize impacts of forestry operations on wildlife habitat, vernal pools, rare species habitat, soils, surface waters, wetlands, and cultural resources;
- Control occurrence and spread of invasive plants;
- Engage and encourage community forest stewardship. Educate the public and solicit public input regarding management of town owned land;
- Protect and enhance opportunities for passive recreation, outdoor education, and hunting;
- Protect stone walls, ancient ways, and other cultural resources;
- Invest in funding land stewardship activities and land conservation.

The overall objective is to assure the long-term viability of the forests while allowing for responsible human use. We recognize our role as land stewards for future generations, the intrinsic value of a forest independent of human needs, the value of ecological services provided by forests, and the need for forest products. We acknowledge that absolutes are rare and that successful and stewardship requires site-specific flexibility, both science-based and commonsense oversight, and adaptive management. Finally, we acknowledge that our understanding of forest ecosystems is limited and responsible management requires a careful,

measured approach, attention to lessons learned, and continued openness to new ideas and scientific information.

Policy and Guidelines

1. Forest Classification

Forests shall be classified in one of the following categories:

Forest Preserve: Parcel with unique or rare forest community (i.e., ranked S1, S2 or S3 by Massachusetts Natural Heritage Program) where no timber or fuelwood or timber harvesting will be conducted unless it is necessary to protect the forest community.

Forest Reserves: Parcels managed primarily to encourage development of late successional forest structure (i.e. old growth characteristics). Harvesting of timber and fuelwood from these areas is permitted only to enhance development of late successional characteristics.

Woodlands: Forests managed for multiple resource uses, including economically and ecologically sustainable production of timber and fuelwood, wildlife habitat, and recreation. Woodlands may contain patch reserves and legacy trees to protect or promote development of late successional characteristics.

Undesignated: Forests which are not categorized as Forest Preserve, Forest Reserves, or Woodlands.

Currently all town-owned forests are classified as “Undesignated”. Over time, land stewardship and forest management plans will be prepared and shall classify forestland as Forest Reserves, Forest Preserves, or Woodlands. The long-term goal is to designate no less than twenty-five (25) percent of forest occurring on town conservation land as Forest Reserves.

Because late successional forest structure require decades to develop, designation of land as Forest Reserves is intended to be permanent but may be reconsidered for ecological reasons.

2. Plans

Land Stewardship Plan

A Land Stewardship Plan is a plan developed by or for the Land Stewardship Committee to guide management of a parcel or contiguous parcels for a period to time (usually ten years). The plan will typically include a description of the property, goals, existing resources and land use, problems and needs, an implementation plan, and funding requirements. Plans shall be reviewed and approved by the Conservation Commission. Where appropriate, forest management plans prepared to Massachusetts Department of Conservation and Recreation (DCR) standards may be

incorporated into land stewardship plans. Where possible land stewardship plans shall combine contiguous town owned parcels into one larger landscape management unit. Management of adjacent public and private land shall be considered when developing land stewardship plans (landscape level approach). Opportunities for partnerships with adjacent land owners should be explored.

A public hearing, advertised in a local newspaper, is required prior to Conservation Commission approval of all Land Stewardship Plans.

Forest Management Plans

Forest management plans shall be developed under direction of the Land Stewardship Committee by a Massachusetts licensed consulting foresters according to MA DCR “Directions for the Preparation of Forest Management Plans”.

Goals and objectives for a parcel shall be provided to the forester by the Land Stewardship Committee and/or Conservation Commission. Plans shall be reviewed and approved by Conservation Commission. Where possible the forest management plan shall combine contiguous town owned parcels into one larger landscape management unit. Management of adjacent public and private land shall be considered when developing a forest management plan. Opportunities for partnerships with adjacent land owners should be explored.

A public hearing, advertised in a local newspaper, is required prior to Conservation Commission approval of all Forest Management Plans.

Forest Cutting Plans

Forest management activities and Forest Cutting Plans shall be prepared for bid by a Massachusetts licensed forester and approved by the Land Stewardship Committee and Conservation Commission. Timber harvesting activities proposed in a Forest Cutting Plan (M.G.L. Chapter 132) shall be consistent with approved Forest Management Plans.

Timber harvesting activities will be conducted by a Massachusetts Licensed Timber Harvester

Abutter notification pursuant to state regulations and a public hearing, advertised in a local newspaper, is required prior to Conservation Commission approval of all cutting plans.

3. Resource Protection

When harvesting timber and fuelwood the Land Stewardship Committee and Conservation Commission will use best management practices (BMP's) for sustainable forestry. High priority will be given to “low impact” and “low disturbance” logging, and all logging practices shall be designed to have minimal impact on the forest floor, forest soils, heritage trees, wetlands, streams, vernal pools, rare species habitat, and other sensitive sites.

Recommended setbacks to protect wetlands, vernal pools, and streams are provided in the attached table. These recommendations are intended to be flexible and variances due to site conditions will be considered. Setback guidance may be updated from time to time.

Other protective measures include:

Rare Species Habitat: Massachusetts Forest Conservation Practices for Rare Species, or more stringent protective measures deemed appropriate by the Conservation Commission shall be practiced.

Special Trees: Stewardship and cutting plans shall normally identify, locate by GPS (Global Positioning System) and protect heritage and legacy trees and patch reserves.

Cavity Trees and Snags: Cavity trees and snags shall generally be left standing, consistent with other forest management objectives, unless they pose a safety hazard near established trails.

Invasive Species: Harvested areas shall be monitored for colonization by invasive species and necessary post harvest control measures implemented. All machinery shall be thoroughly cleaned prior to introduction on any parcel in order to prevent introduction of invasive plant species. Herbicides shall be applied by a Massachusetts licensed pesticide applicator pursuant to the Commission's herbicide use policy.

Slash: All slash (coarse woody debris generated by logging operations) shall normally remain on site, but shall not be left higher than 3 feet off the ground. Limbwood greater than 3 inch diameter may be removed for firewood. All slash will be treated in accordance to the Massachusetts Slash Law (M.G.L. Chapter 48, Section 16).

Replanting and Regeneration: Natural regeneration is expected to occur after harvest and replanting will normally not be required. Soil scarification to assist tree regeneration is permitted. Once plant material is available, opportunistic replanting of disease or insect resistant cultivars of American chestnut, American elm, and other native species may one day be included in cutting plans.

Recreational Trails: Avoid and minimize impacts to the existing trail system and trail use during harvesting operations as much as possible.

Cultural Resources: Avoid impacts to stone walls, other stone features, ancient ways, ceremonial stone landscapes, and other cultural resources. An inventory of cultural resources is required prior to development of a cutting plan.

4. Other Provisions

Deed Restrictions

Property deeds shall be reviewed to assure that land stewardship or forest management plans do not violate any recorded deed restrictions.

Consultants

Hiring of Massachusetts licensed foresters and other experts to prepare forest management plans are encouraged. Measures must be taken, however, to assure that unbiased advice is provided. To this end, management plans and cutting plans may be prepared by different entities if the Conservation Commission or Land Stewardship Committee feels this is in the best interest of the town. Full service contracts in which one individual or company is hired to support all aspects of forest management on a parcel or parcels are to be entered into cautiously. Consultants should not benefit directly from the proceeds (i.e. volume) of a timber cut.

Timber Harvesting

No timber harvesting on lands managed by Upton Conservation Committee and Land Stewardship Committee, regardless of volume, may occur without an approved forest management plan and state forester approved cutting plan.

Resident Home Fuelwood Harvests

The Land Stewardship Committee may hold occasional resident home fuelwood lotteries or fuelwood sales for Upton residents. Small fuelwood cuts may occur on parcels without a forest management plan or professionally prepared forest cutting plan with Conservation Commission approval provided such cuts are in accordance with the land stewardship plan.

Income from Timber and Fuelwood Sales

The Conservation Commission shall maintain a revolving fund for proceeds from timber and fuelwood sales. The fund shall be used to support land stewardship activities and possibly land conservation (acquisition).

Sample Town Meeting Article: Land Stewardship Committee “Land Stewardship Fund” – the purpose of this fund shall be to pay costs associated with management of conservation areas and open space parcels owned by the Town, to include, preparation of forestry and land stewardship plans, habitat management, trail development and maintenance, installation and maintenance of parking areas, bridges, boardwalks, fences, kiosks, and signage, and snow removal from parking areas. Monies to be deposited into this fund shall be fees and other receipts received in connection with the sale and harvest of timber and other agricultural or forestry products derived from properties managed by the Land Stewardship Committee. Expenditures from this fund shall be authorized by the chairperson of the Land Stewardship Committee and be limited to xx thousand dollars for fiscal year 20xx; or take any other action relative thereto.

Early Successional Habitat

Creation, expansion, and maintenance of early successional habitat (grassland, shrubland, or young forests) is encouraged. Clearing of areas which may never have been cleared for pasture or farmland should be avoided. Forested areas to be managed to include early successional habitat shall be identified in approved Land Stewardship or Forest Management Plans.

Tree Nurseries

The Land Stewardship Committee may establish a tree nursery for use by town to replace shade trees along roadsides, cemeteries, and other public places. If revolving fund is in place, nursery stock may also be sold to raise funds as described above.

American Chestnut and American Elm Restoration

Efforts and partnerships to establish disease resistant American chestnut and American Elm on town conservation land are encouraged.

Biomass (Bioenergy) Harvesting

Management of town lands for bioenergy production is not authorized. Incidental removal of slash, and non-merchantable trees for wood chips may be permitted so long as it does not compromise other management objectives.

Invasive Species Control

Use of herbicides to control invasive plants following a cut is permitted by a Massachusetts licensed pesticide applicator pursuant to the Commission's herbicide use policy.

5. Policy Review & Reassessment

This document is intended to be reviewed and updated as the Conservation Commission and Land Stewardship Committee gains experience with forest management. A public hearing is required for any proposed updates.

Definitions

Biomass Harvesting

Biomass harvesting refers to vegetation removed from the forest for bioenergy use, including logging slash, small-diameter trees, tops, limbs, and whole trees not considered merchantable in traditional markets.

Biomass Harvest

Refers to the harvest of additional woody material (non-merchantable/poor quality trees) beyond traditional timber harvests to provide the raw material for energy (electrical generation) or heat (wood pellets) production.

Cavity Tree

Dead, dying, or live trees with cavities large enough to provide nesting habitat for birds and mammals. Typically these trees will be larger than 4" dbh and taller than 10 ft

Conservation Management Forestry Practices

Forestry Conservation Management Practices (CMPs) are specific, science-based guidelines for conservation of rare species during forest harvesting. CMPs are somewhat analogous to Forestry Best Management Practices (BMPs), except whereas BMPs focus mainly on protection of water resources, CMPs specialize in protection of rare wildlife. The primary objective of CMPs is to guide harvesting activities such that rare species listed under the Massachusetts Endangered Species Act (MESA) are not impacted in a way that jeopardizes long-term viability of local populations.

Forest Cutting Plan (MA Forest Cutting Practices Act)

Forest Cutting Plan means a plan for the cutting of trees on forest land prepared and submitted in accordance with M.G.L. c. 132, §§ 40 through 46 and 304 CMR 11.00. A forest cutting plan shall meet the requirements for a notice of intent to cut under M.G.L. c. 132, §§ 40 through 46. The Massachusetts Forest Cutting Practices Act was created to ensure the long-term public benefits provided by forests. Applicable to timber harvesting on both public and private forestland, the Forest Cutting Practices Act regulates any commercial timber cutting of wood products greater than 25 thousand board feet or 50 cords on any parcel of land at any one time.

Forest Stewardship Plan (Forest Management Plan)

A forest stewardship plan is a 10-year forest management plan based on defined goals. It documents management options and practices designed to maintain the land in a productive and healthy condition for the next generation. Soil and water quality, wildlife and fish habitat, timber and other wood products, and outdoor recreation are among the many factors taken into account. It recommends actions that will protect or increase the environmental values of the land while yielding desired social or economic benefits. The plan is prepared by Massachusetts licensed forester in accordance with MA DCR standards.

Forest Reserve

Parcels managed primarily to encourage development of late successional (i.e. old growth characteristics). Harvest of timber and fuelwood from these areas is permitted only to enhance development of late successional characteristics.

Forest Preserve

Parcel with unique or rare forest community where no timber or fuelwood harvesting is permitted. Forest communities classified as S1, S2 or S3 by the Massachusetts Natural Heritage Program are considered rare communities.

Fuelwood

Fuelwood, more commonly referred to as firewood or cordwood, is any wooden material that is gathered and used for heating and/or cooking. Firewood is not highly processed and is in some sort of recognizable log or branch form, compared to other forms of wood fuel like pellets or chips.

Heritage Tree

A notable specimen because of its size, form, shape, beauty, age, color, rarity, genetic constitution, or other distinctive features; A prominent community landmark; A specimen associated with a historic person, place, event or period; A tree associated with local folklore, myths, legends, or traditions; A tree that is a remnant of different climate conditions or cultural practices.

Land Stewardship

Stewardship is the recognition of our collective responsibility to retain the quality and abundance of our land, air, water and biodiversity, and to manage this natural capital in a way that conserves all of its values, be they environmental, economic, social or cultural. It is the active long-term management of lands and natural resources by focusing on specific land management practices. Elements of land stewardship include:

- *Establishing goals and objectives for the land and developing measures and metrics of success.*
- *Defining strategies, including science-based actions, to meet goals and abate threats.*
- *Developing the capacity to implement through funding, cooperation, personnel, and commitment.*
- *Monitoring progress towards goals and adjusting actions according to results.*

Land Stewardship Plan

Comprehensive land management plan for a parcel or parcels prepared by or for Upton Land Stewardship Committee and approved by Upton Conservation Commission. The plan may or may not include a MA DCR approved forest management/forest stewardship plan.

Legacy Tree

A legacy tree is defined here as a mature overstory tree which is generally larger and older than most trees within the local landscape. Legacy trees may provide large hollows or cavities that can be used for shelter and nesting sites, have large branches which provide horizontal and vertical structure within the canopy, and have dead branches which provide foraging habitat. They may provide habitat for uncommon insects, lichens, and other biota. They may be of aesthetic value and provide insights into land use history. When they die, legacy trees may provide habitat value as a large snag or downed log on the forest floor for decades.

Old Growth Characteristics

Characteristics that are generally more abundant in old-growth forests include the following: a diversity of tree ages and sizes, including very large trees (> 25 inches in diameter); large downed logs, and gaps in the forest canopy.

Patch Reserve

An array of legacy trees located in a well defined geographic location.

Rare Species

Species of plants and animals that are officially listed as Endangered, Threatened or of Special Concern in Massachusetts and tracked by the Natural Heritage and Endangered Species Program. These are species considered to be at risk, or potentially at risk, of extirpation from Massachusetts, or at risk of global extinction. The Conservation Commission may choose to consider other uncommon species as “rare” when implementing this policy.

Snag

A standing dead or dying tree.

Slash

Slash”, tops, branches, damaged trees, slabs, sawdust from milling operations, or debris left from logging or land clearing operations.

Sustainable Forest Management

The stewardship and use of forests and forest lands in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfill, now and in the future, relevant ecological, economic and social functions, at local, national, and global levels, and that does not cause damage to other ecosystems (definition adopted by Food and Agriculture Organization (FAO)).

Timber

Wood in any of its stages from felling to readiness for use as structural material for construction. In general, it refers to felled trees, later milled into boards referred to as lumber.

Woodland

Forest managed for multiple resources, including sustainable production of timber and fuelwood, wildlife habitat, and recreation.

Setback Guidelines

Resource	Recommended Protection	
	Management Zone (feet)	No Harvest Zone (feet)
Intermittent Stream	25 - 100	0 - 25
Perennial Stream	50 - 100	0 - 50
Wetland (BVW)	0 - 50	-
Isolated Wetland	0 - 50	-
Vernal Pool	100 - 600	0 - 100
Pond	25 - 100	0 - 25

Notes:

1. No harvesting within vernal pools and within 100 feet of vernal pools.
2. Within wetlands and the stream, wetland, and pond management zones maintain greater than 50% basal area and cut no more frequently than once every 20 years. A Variable width management zone (based on slope percent) shall be used when slopes adjacent to resource areas are greater than 10% (see MA Forestry BMP Manual).
3. Within the 100 to 600 foot vernal pool management zone maintain a minimum of 70% of the area greater than 75% canopy cover (or equivalent basal area) composed of trees at least 30 feet tall and a moist forest floor with deep litter and abundant coarse woody debris. Any portion of this zone containing less than 75% canopy cover shall retain at least 10 square feet basal area per acre of dominant/co-dominant tree at least 10 inches dbh. Harvesting shall occur only during frozen or dry ground conditions.
4. Additional restrictions may be required to protect rare species habitat. For purposes of this policy, rare species include but are not limited to, blue-spotted and marbled salamander, and wood and Eastern box turtle.
5. Follow all relevant BMPs recommended in the most recent edition of the MA Forestry Best Management Practices Manual and restrictions required by MA DCR forest cutting regulations.
6. Forest management may be considered in "No Harvest Zones" for eradication of introduced forest pests (e.g., Asian Long-horned beetle) and/or ecological restoration purposes.