



OXBOW ASSOCIATES, INC.

Wetlands Delineation and Permitting • Wildlife Studies • Herpetology • Vernal Pool Ecology

Stonemyeade Conservation Land Meadow Management Recommendations Acton, MA



Prepared for:

**Town of Acton Natural Resources Department
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Introduction

On behalf of the Town of Acton Natural Resources Department (NRC), Oxbow Associates, Inc. (OA) investigated the meadow on Stoneymeade Conservation Land during fall 2012 in order to evaluate habitat conditions and make recommendations on how to manage the meadow habitat on the property. This document, aimed at summarizing management goals and procedures, presents OA's recommendations for sustaining and enhancing the meadow habitat on Stoneymeade Conservation Land. Below we provide a general overview of our recommendations followed by specific tasks for the various interested parties such as Acton NRC mowing crews, Land Stewardship Committee, and volunteer land managers.

Stoneymeade Conservation Land Meadow Habitat Goals

- 1) Maximize diversity of native flora associated with the early successional community
- 2) Minimize or eradicate invasive flora

Management Suggestions

- Mow the meadow management area once annually in the fall

This will prevent colonization by large woody tree and shrub species and maintain the grass and forb species composition.

- Selectively remove woody invasive plant species

Virtually all the large shrub specimens scattered within the meadow are listed as invasive plant species (multiflora rose, glossy buckthorn, honeysuckle, olive, and oriental bittersweet). The margins of the meadow and the area surrounding the large white oak tree also include many of these invasive shrub species. OA recommends removal via pulling or cutting. Herbicide treatment (i.e., cut and dab application) may be a more effective method of controlling glossy buckthorn and oriental bittersweet.

Cutting or pulling of invasive plants can occur at any time, however, for greatest reduction of plants and seed stock, the optimal time for removal is during the May-June flowering period, prior to fruiting. Most of the invasive plants on the Stoneymeade Conservation Land (oriental bittersweet, multiflora rose, honeysuckle, olive, and glossy buckthorn) tend to flower starting during May and June with seed drop later in the season.

Cut or pulled invasive plants should be piled for burning during winter.

- Consider planting native shrubs and wildflowers

Whereas the vast majority of the shrub species within and bordering the meadow are non-native invasives that are targeted for removal, it would be desirable to plant native seed bearing shrubs as an alternative food source for birds. This would enhance the meadow habitat in that the biodiversity would be increased and many reports indicate that native seeds have higher nutritive value than those of non-native plants. Given the rolling topography and proximity to a small pond, OA recommends considering the following native small tree or shrub species fire-cherry (*Prunus pensylvanica*), chokeberry (*Aronia* spp.), shadbush (*Amelanchier* spp.), dogwoods (*Swida* spp.), sumacs (*Rhus* spp.), and highbush blueberry (*Vaccinium corymbosum*), although there are many other native options.

The addition of native wildflowers will further increase the plant diversity and attract pollinators (i.e., moths, butterflies, bees, beetles, etc.) while simultaneously adding to the aesthetic appeal of the management area. *Baptisia tinctoria*, *Lupinus perennis*, native *Asclepias* and *Spirea* species, and additional native asters and goldenrods (Asteraceae) are some suggested plantings, however, multitudes of other options exist. The New England Wildflower Society is a great source for species ideas and/or plants and seeds.

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Closing

The recommendations and guidelines contained within this document are OA's professional opinions for management of Stoneymeade Conservation Land meadow habitat. The ideas presented herein are not intended to preclude other management activities on the property. Also, please note that the goals and techniques put forth here may need to shift or change over time in response to natural processes, alterations of the surrounding landscape, or other unforeseen factors.

Thank you for the opportunity to contribute to this valuable conservation project.

Sincerely,



Brett Trowbridge
Field Biologist

Enclosures:

Guidelines for Mowing and Cutting Crews
Guidelines for Flagging of Cutting and Preservation Areas

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Guidelines for Mowing and Cutting

- Mow all non-woody vegetation and low woody shrubs growing within the meadow area.
- Look for flagging color and label indicators on stands of trees and shrubs.
- In general, the flag colors designated below will apply, however, please pay attention to labels on the flags. Other colors may be used if yellow and orange are unavailable, but instructions will be written on the flags. Please do not disturb flags that are not labeled “Cut” or “Mow”.

Yellow flagging tape will be used to indicate individuals or stands of vegetation to be mowed or cut. These flags will be labeled “Cut” or “Mow”

YELLOW = MOW or CUT

Orange flagging tape will be used to indicate individual specimens or areas that should be avoided. These flags will be labeled “Avoid”

ORANGE = AVOID

- Cutting of larger shrubs and trees should be as close to the ground as possible. This will help minimize tripping injuries and equipment damage.
- Alternatively, pulling via tractor and chain may be effective at removing as much plant material as possible.

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Guidelines for Flagging of Cutting Areas

- Target Oriental Bittersweet (*Celastrus orbiculata*), Multiflora Rose (*Rosa multiflora*), Honeysuckle (*Lonicera morrowii*), Autumn Olive (*Elaeagnus umbellata*), and Glossy Buckthorn (*Frangula alnus*) for mowing or cutting.
- Whenever possible, adhere to the following flag colors designated below.
- Be sure to label each flag with permanent marker, regardless of flag color.
- Yellow flagging tape should be used to indicate individuals or stands of vegetation to be mowed or cut. These flags should be labeled “Cut” or “Mow”.
YELLOW = MOW or CUT
- Orange flagging tape will be used to indicate individual native specimens or areas that should be avoided. These flags will be labeled “Avoid”
ORANGE = AVOID
- Please consider use of bio/photodegradable flagging tape (available at: <http://www.forestry-suppliers.com/> or <http://www.benmeadows.com/>)

Botanical References

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