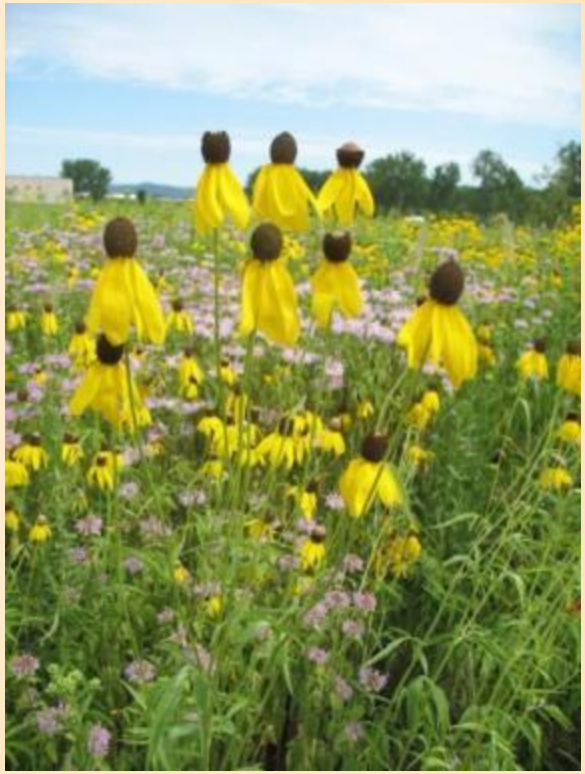
Managing Vegetation on Conservation Easements

Goal: Meeting Objectives in the Conservation Plan



Management Planning

- Identify Needs

Management Planning

- Identify Needs
- Consider Management Options

Management Planning

- Identify Needs
- Consider Management Options
- Apply Adaptive Mgmt.

Noxious Weeds

Plants injurious to public health, the environment, public roads, crops, livestock, or other property

Statewide Listed Noxious Weeds

21 State Prohibited Noxious Weeds

- Eradicate List – 11 Species
- Control List – 10 Species

4 State Restricted Noxious Weeds

1 Specially Regulated Plant

State Prohibited Noxious Weeds

Control List

- Purple Loosestrife
- Garlic Mustard
- Spotted Knapweed
- Leafy Spurge
- Wild Parsnip
- Common Tansy
- Canada Thistle
- Musk Thistle
- Plumeless Thistle
- Narrowleaf Bittercress

Common Tansy

Link

Other Common Management Concerns

- Lack of forbs
- Sparse vegetation
- Annual weeds dominant
- Woody encroachment
- Other problem weeds

Sparse vegetation

Management Methods

- Mechanical
- Chemical
- Biocontrol

Mechanical

- Pulling
- Cutting
- Mowing
- Grazing
- Fire

Pulling

Cutting

Mowing

Grazing

Fire

Chemical control

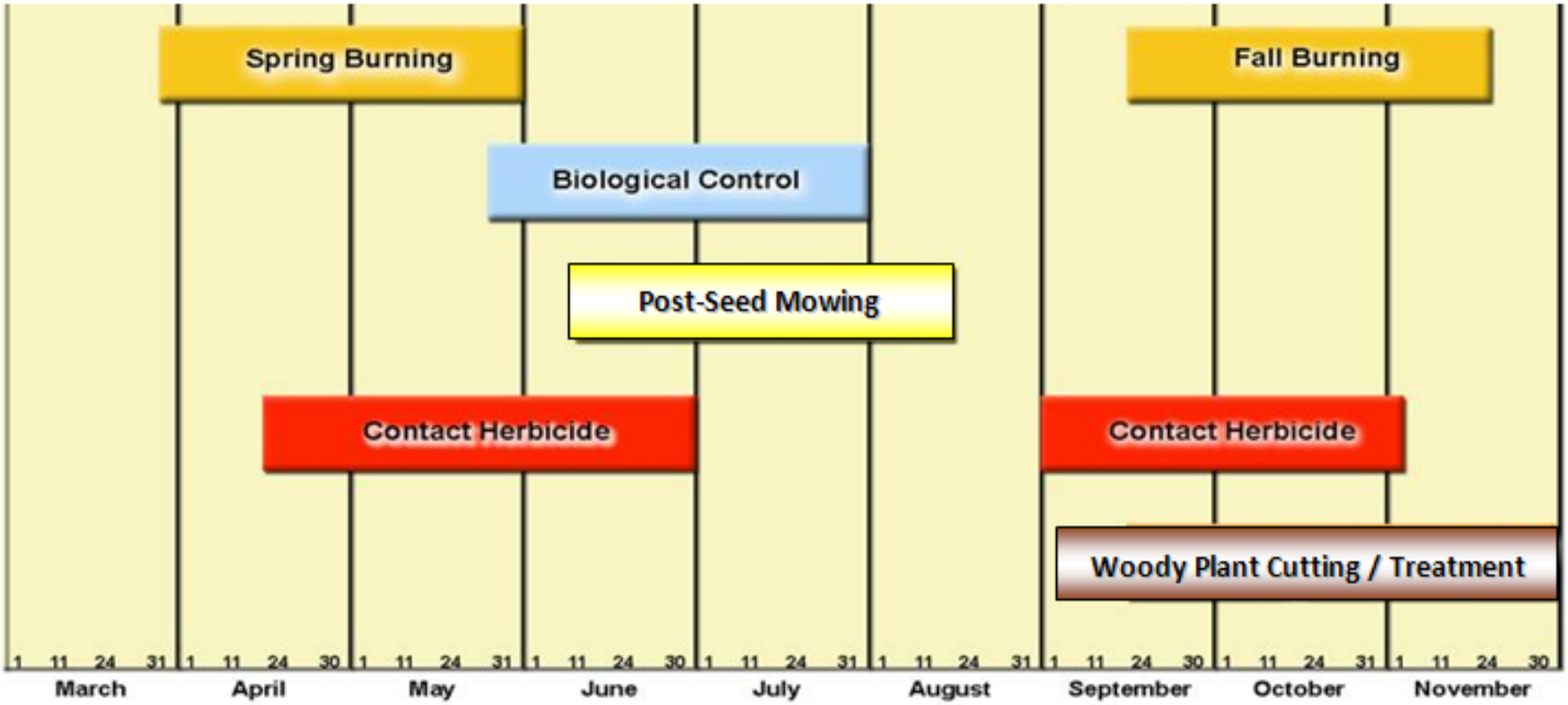
Biological Control

Reconnecting invasive plants with the specialized natural enemies

Weevil on Knapweed

Beetles on Leafy Spurge

Management Timing



Bare Areas/Poor Establishment

Annual or Biennial Weeds are Dominant

Woody Encroachment of Prairie

Noxious Weeds Exceed 10% Cover

Enhancements that Could Improve Site

Control Information

APPENDIX

5B Invasive Species Control Information

Species included in Appendix 5B:

Hybrid cattail (Typha glauca)
Narrow-leaf cattail (Typha angustifolia)
Purple loosestrife (Lythrum salicaria)
Reed canary grass (Phalaris arundinacea)
Common buckthorn (Rhamnus cathartica)
Glossy buckthorn (Rhamnus frangula)
Common reed grass (Phragmites australis, syn. P. communis)
Canada thistle (Cirsium arvense)
Crown vetch (Coronilla varia)
Bird's foot trefoil (Lotus corniculatus)
Sweet clover (Melilotus officinalis and M. alba)
Wild parsnip (Pastinaca sativa L.)
Spotted knapweed (Centaurea maculosa)

Invasive species can be plants, animals, or other organisms such as insects or microbes. They spread mostly as the result of human actions and are often one of the most important management considerations throughout all aspects of a restoration project.

Invasive species should be considered for all phases of a project from site preparation to long-term management. This appendix is intended as a reference for how to control the most common invasive plant species associated with wetland restoration projects in Minnesota and the Upper Midwest. The section begins with species that can be found in emergent and lowland regions, then moves to species found in upland areas. Each species listed begins with an overview of the target plant and then lists recommendations for control strategies.

Recommendations and strategies are given in alternative scenarios: **Mechanical Control, Chemical Control, Prescribed Fire, and Biological Control**. Timelines for optimum control are noted, but consideration should be given to unique regional or micro-climatic conditions of the site as sprouting/blooming/dormancy times may differ according to region of the state. Management recommendations are provided as a guide, but it should be noted that there are often many ways to conduct invasive species control depending on specific site conditions. There is also many ways that management strategies can be combined to accomplish effective control.

For many species recommendations are given for low, medium and high quality sites. These rankings refer to the quality of reconstructed plant communities but may also apply to native (remnant) plant communities in many cases. Consultation with experienced professionals should be sought before initiating work in remnant plant communities.

Listed below are the four control categories and their respective definitions (Mechanical, Chemical, Prescribed Fire, and Biological Control).

Mechanical Control: This control method includes both manual and mechanical methods. This includes: cutting, pulling, trimming, mowing, trampling/crushing, and flooding. Pulling can be done by hand or with a weed wrench. Cutting and trimming can be accomplished with hand clippers, saws, weed whippers, etc. Mechanical methods such

Questions?

Wrap-up