

Land Management Plan for 2016

Whole site management

- Greenhouse propagation of prairie plant seedlings- The prairie crew, in collaboration with the D.C. Smith Greenhouse, is propagating 44 conservative prairie species during the winter of 2015 through summer 2016. 15 of the species are listed as state endangered, threatened or of special concern. Thousands of individual plants from this project will be transplanted to various areas of the prairie in an effort to increase diversity and reduce weed growth where invasive species have been dug up and removed.
- Continue prairie restoration efforts as an ecological education and research project
- Control invasive weeds, specifically targeting Canada thistle and leafy spurge
- Mow grassy strips between and surrounding prairie areas
- Continue seed collecting, inter-seeding, and transplanting
- Prepare for prescribed burns

Northeast mesic prairie (1 acre)

- Hand weed invasive species and remove woody plants
- Transplant from nursery and greenhouse-grown plants
- Remove Canada goldenrod plots and allow to naturalize

Southeast mesic prairie (1 acre)

- Hand weed invasive species and remove woody plants
- Plant new rare and conservative plant species

North Central mesic prairie (4.5 acres)

- Hand weed invasive species and remove woody plants
- Spot spray thistle in southwest corner
- Transplant big blue stem and other grasses in southwest corner
- Maintain trails

South Central wet-mesic (2 acres)

- Mow, hand weed and glyphosate spot spray and broadcast spray (if needed) to control thistle and other problematic weeds
- Estimated planting date- Fall 2016

Status: Originally planted in 2004, this area has been plagued with problem weeds, including stinging nettle, crown vetch, Canada thistle, and reed canary grass. The soil is rich in weed seeds and nitrogen that encourage weed growth. Both of these problems are partly due to the floating bog that was put there many years prior to the start of this restoration. In spring 2014, the area was bisected into two parts- the northernmost 30 meters was tilled and the rest remained untilled with the entire area planted in oats (Figure 4). The oats were harvested off the site twice during the 2014 growing season to remove nutrients. At the same time, two students- Cristina Fisher and Frances Shepard- did a thorough survey of the weed seed emergence and found that tilling effectively reduces grasses and non-clonal weedy forbs but increases clonal problematic Canada thistle. This study provided data on the extent of Canada thistle establishment and helped us decide to continue to do weed management for at least one more season to suppress thistle establishment and spread. During summer 2015, we continued to mow and suppress thistle using a combination of hand weeding and spot spraying techniques. We will continue this effort through summer 2016 with an estimated planting date for the site of Fall 2016 (early December).

West dry prairie (2.8 acres)

- Hand weed and spot spray to control thistle and leafy spurge
- Inter-seed dry prairie species
- Transplant prairie dropseed and other grasses in leafy spurge weed control plots

Status: This area is unique and particularly well suited to growing dry adapted prairie species. The prairie plant community is starting to establish, however, there continue to be large pockets of leafy spurge. In 2016, we will continue to spot spray leafy spurge in these pockets, and plan to transplant grasses to provide strong competition to this problematic species

West Inset dry-mesic prairie (0.5 acres)

- Monitor prairie seedling establishment
- Mow and hand weed to control problematic weeds

References:

Biocore Prairie Annual Report 2013-2014

Howell, E. A., Harrington, J. A. and Glass, S. B. 2012. Introduction to Restoration Ecology pp. 436

Lakeshore Nature Preserve Master Plan 2006