



Minnesota Moose Habitat Collaborative



Moose Habitat Project Documentation

Project _____ **[Project Name]**
 Name/Agency _____ **[Your Name/Your Agency]**
 Date _____ **[Date]**
 Location (attach map) _____ **[Location]**

PROJECT DESCRIPTION

Native Plant Community & Landscape Context

[Example: This stand is FDn43 and succeeding to brush, likely a result of the lack of conifer seed source and lack of disturbance. Much of surrounding upland is similar or in plantations.]

Short-term Desired Future Condition (5-10 years)

[Examples: 1) Stand will primarily be regenerating mountain maple and hazel. 2) Stand will have regenerating brush and conifers.]

Long-term Desired Future Condition (50-100 years)

[Examples: 1) Without treatment, stand will succeed to a mixed conifer/deciduous stand. Without subsequent treatment, stand will be kept in a regenerating condition. 2) Stand will be a middle-aged mixed conifer/deciduous stand.]

Methods

[Examples: 1) Shear rank upland brush to regenerate browse. 2) Plant white pine, white cedar and white spruce @400 trees/ac to develop conifer component in mixed stand for thermal cover. 3) Prescribed fire to regenerate browse and promote mixed forest.]

BIOLOGIST COMMENTS

Note: DNR staff is available to review projects. Contact Nancy Hansen, Bailey Petersen, Dawn Plattner (Two Harbors), Jessica Holmes (Tower) or Penny Backman (Orr).

Biologist Name/Agency _____ **[Biologist Name/Agency]**

[Biologist comments should focus on benefits to moose based on appropriateness of project's DFCs, methods and adherence to guidelines (see below).]



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MOOSE HABITAT GUIDELINES

ALL PROJECTS should:

- Restore forest characteristics to site's native plant community (NPC) growth stages.
- Perpetuate a forest with plant species that are appropriate to the NPC and the landscape (i.e. historically observed as native in the Land Type Association).
- Achieve objectives of the Forest Resource Council's Northeast Landscape Plan.
- Ensure that disturbance to soil is minimized & targeted to reforestation of hard to regenerate tree species that are appropriate to NPC.
- Consider existing forest cover and future management plans for adjoining stands (Deviations from the guidelines may be appropriate based on these considerations: e.g. planting >400 conifer/acre if little conifer cover exists in the area). The goal for the landscape would be to create a mosaic of habitats with a variety of ages and species creating moose cover and browse in close proximity to each other.
- Minimize spread of invasive plants.
- Not plant pure or nearly pure white spruce or red pine. Mixing in white cedar, jack pine or white pine, hardwoods etc. as appropriate for NPC, is preferred.

MOST PROJECTS will:

- Have a short-term desired future condition of disturbance-created regenerating browse.
- Have a long-term desired future condition of a mixed coniferous/deciduous forest (mixed forest will continue providing browse as the sunlight can penetrate the deciduous component to perpetuate brush).
- If methods include tree planting, have a maximum of 400 planted conifer trees/acre across the site (e.g. mixtures of conifer/deciduous planted trees may exceed 400 trees/acre but conifers <401 trees/acre).
- Leave (skip) pockets of young conifer/deciduous trees on the landscape in addition to mature trees to allow for some advanced regeneration, when shearing or mowing. This provides hiding and thermal cover and diversity in the future structure of the forest.
- Control brush/release planted trees with hand release (brush saws) rather than herbicide treatment to maintain plant diversity & future browse availability. Spot herbicide treatment is okay if hand release isn't feasible but broadcast herbicide use should be avoided on moose habitat projects sites.

SOME PROJECTS will:

- Allow & encourage part of the site to be maintained as upland brush species which have value to moose as browse (e.g. hazel & mountain maple) with temporary disturbances (such as periodic mowing).
- Incorporate mosaic or clump planting of conifers, which is preferred over row plantations.