

Interim Ecosystem Management Guidelines WUP Management Unit Including Escanaba, Ishpeming, Baraga and Crystal Falls Forest Areas

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## Light Seeded Species:

### Assumptions:

- Our goal is to retain light seeded species and in some cases (i.e. hemlock, white cedar) expand the type if possible. This goal may be related to, but not limited to, wildlife habitat development and/or to retain and improve forest diversity.
- Conditions and risk factors vary considerably across the WUP; therefore, no single approach is likely to be successful. Management of these species will require specific on site knowledge by local staff.
- Although current deer populations may pose a risk factor causing us to preclude cutting at this time, deer populations are dynamic and it is believed that opportunities will exist in the future for cuts in these types to result in regeneration and recruitment. Therefore, preserving management options for the future is an important consideration when managing these types.

### Interim guidelines:

1. These species are generally moderate to good quality deer browse. In any stand where light seeded species are cut and the **management objective** MO is to preserve them or manage for them, a risk analysis will be done prior to prescription approval. If the risk analysis suggests that regeneration and recruitment are unlikely, cutting will be deferred.
2. Winter cut restrictions will no longer be required in deer winter range. Light seeded species often require seedbeds for regeneration that can best be accomplished by spring, summer or fall timber cutting operations. Lifting this restriction will give us more flexibility for site preparation activities.

### **Suggested Silviculture: White Birch**

1. The aim of white birch management is to regenerate and maintain white birch as a component of the landscape.
2. Attempt to regenerate white birch stands (to white birch) whenever practical.
3. Set rotation age.
  - Let stand condition determine whether or not a harvest should be prescribed.
  - If the stand will persist in good health for 10 more years, defer harvest until that time.
  - If the stand has reached the average rotation age of 70 years, generally prescribe a harvest.
4. Define the management objective for the stand. When contemplating a white birch management objective, predict the probability of success by considering the following factors:
  - Size of advanced regeneration.
  - Historical experience with birch regeneration in the locality.
  - Basal area and thriftiness of existing white birch.
  - Species composition of stand.
  - Size of stand.

### **Suggested Silviculture: Eastern Hemlock**

1. The objective of hemlock management is to increase the occurrence and acreage of hemlock stands in the western U.P., and to increase hemlock trees as a component of other forest types.
2. Following are specific treatment considerations for stands in which a treatment has been prescribed:
  - Thin hemlock stands to enhance the hemlock component and improve growth and vigor, while retaining a component of other species.

- Salvage short-lived species from hemlock stands when thinning.
- Harvest during the snow-free season to promote soil scarification, or alternatively, prescribe pre- or post-harvest scarification with machinery.
- Do not conduct removal cuts within pure or nearly pure hemlock stands, or portions of stands where hemlock is densely stocked and the occurrence of other species is negligible.
- Maintain vegetative diversity when harvesting in hemlock stands by retaining a component of white birch, yellow birch, white pine, red pine, red maple, etc.
- Encourage the formation and retention of “nursery logs” that may promote establishment of new hemlock seedlings.

### **Suggested Silviculture: Northern White Cedar**

At this time Northern White Cedar appears to be the most vulnerable type to loss due to regeneration/recruitment failures. Deer herbivory is most often cited as the main reason for this failure. In the low and moderate snowfall zones of the WUP, a risk analysis for cedar would suggest a no-cut policy at the present time due to the likelihood of deer impacts on regeneration. Cedar is a long-lived species and most WUP stands are moderately aged at present. Therefore, the urgency of conducting regeneration costs is less than critical. However, demand for cedar is high.

#### Guidelines:

1. Cedar stands in the low and moderate snowfall zones of the WUP will be deferred from regeneration cuts until such time that a risk analysis suggests good opportunities for regeneration and recruitment.
2. Cedar may be harvested anywhere in the WUP where an experimental cut to retain and/or expand the type is being attempted. Any experimental cut must go through the compartment review process, and have an experimental design approved by both FMFMD and Wildlife Divisions.
3. Cedar which occur in mixed stands will not be removed, except as needed to accomplish the overall management objective of the stand. Mixed stands represent areas of opportunity to expand cedar and maintain within stand diversity by productivity the cedar resource. Cutting specifications and placement of roads within these stands is especially critical and should have the review and concurrence of FMFMD and Wildlife staff.

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