

January, 2014

Master Plan Variance  
White Fish Dunes State Park Vegetation Management



Property Name: Whitefish Dunes State Park

Date the Current Master Plan was approved: 1977

Proposed Change to the Master Plan:

The following will be added to Section IX.C. Vegetation Management of the master plan:

Hazard tree management may be implemented as necessary when hazard trees are identified in use areas such as trails, service areas, picnic areas, and park office. Depending on the number and areal extent of the hazard trees identified, hazard tree management can vary from the removal of individual trees to commercial timber sales. Additional vegetation management activities may be considered when the master plan is revised. The specific locations of hazard tree management are shown on Figure 1. The specific vegetation management activities described below may be immediately carried out.

#### Designated Use Areas

The immediate cause for hazard tree management is the widespread presence of beech bark disease (BBD) in and adjacent to designated use areas. BBD is well-established on properties in the vicinity of Whitefish Dunes State Park and beech trees have been felled on those properties. Seemingly healthy beech trees but are affected by BBD are known to unexpectedly snap off 10-15 feet above the ground thereby creating potential safety concerns. Many of the mature beech trees in and adjacent to designated use areas are approximately 70 to 75 feet tall.

Using a commercial timber harvest, cut and remove all beech within 75 feet of designated use areas including trails, parking lots, picnic areas, and buildings (see Figure 1). Beech trees are defined as being greater than 5 inches at 4.5 feet above ground; many trees are larger than 8 inches. Relative beech tree density ranges from as low as 10-20% to over 40%. Currently beech mortality is over 50% in pockets. Also included in the harvest would be non-beech hazardous trees leaning towards a designated use area. If these non-beech hazard trees are leaning away from designated use areas, they will not be cut and left for the benefit of wildlife.

Prior to the commercial harvest, staff will fell beech trees causing a hazard in or near designated use areas. Natural succession will be allowed to in-fill harvested areas. In areas where natural regeneration is lacking, supplemental planting of native tree and shrub species may be done.

#### These Actions will be Taken to Inform Park Users and Minimize Visual and Biological Impacts:

1. Provide signs, handouts, public meetings and posting to the Park web site to explain these management activities.
2. The majority of tree removal may be conducted in the spring (approximately April 1 through May 31) in order to reduce the number of hazard trees as quickly as

- possible. In sensitive areas (e.g., areas with archaeological features), tree removal will be done under frozen ground conditions.
3. Timber selection and harvests shall be consistent with the "Guidance for Managing Forest Lands" for the Wisconsin State Park System (Appendix A).
  4. Slash will be removed and stumps will be cut low in visually sensitive areas, such as along designated trails. In other areas slash will be flattened or laid flat to promote decomposition. Follow State Parks guidelines for slash and stump management (Appendix B). Given the narrow width of the harvest corridor and to reduce site disturbance, an exception from the standard 50 foot distance in the guidelines (see Appendix B, Section E.2) for this hazard tree management plan. Slash will be removed from within 10 feet of either side of trails.
  5. Special Concern, Threatened, or Endangered Plants and Animals:  
Steps will be taken to protect the Special Concern, Threatened, or Endangered plants and animals for which potential habitat exists in the harvest area. Eight rare plants (five Threatened and three Special Concern), two rare animals (one Endangered and one Special Concern), and four natural communities are known to be extant within the park. All of Door County is a Migratory Bird Concentration Site. Most of the habitat for the rare species is associated the beach and dunes. Timing of the timber harvest will avoid impacting the remaining species.

Additionally, part of the harvest is within the Whitefish Dunes State Natural Area (SNA; Figure 2). Park staff and foresters will coordinate with SNA staff to minimize impacts of hazard tree management within the SNA.

Archeological, Historical, Cultural Resources:

Archeological sites have been identified at Whitefish Dunes State Park. Vegetation management will be done under frozen ground conditions in these areas and will be coordinated with DNR archaeologist to avoid damaging archaeological features.

Variance/Amendment Initiator or Author: Craig Anderson

Job Title: State Parks Ecologist

Figure 1. Whitefish Dunes State Park Hazard Tree Management Areas. Red triangles indicate park buildings.

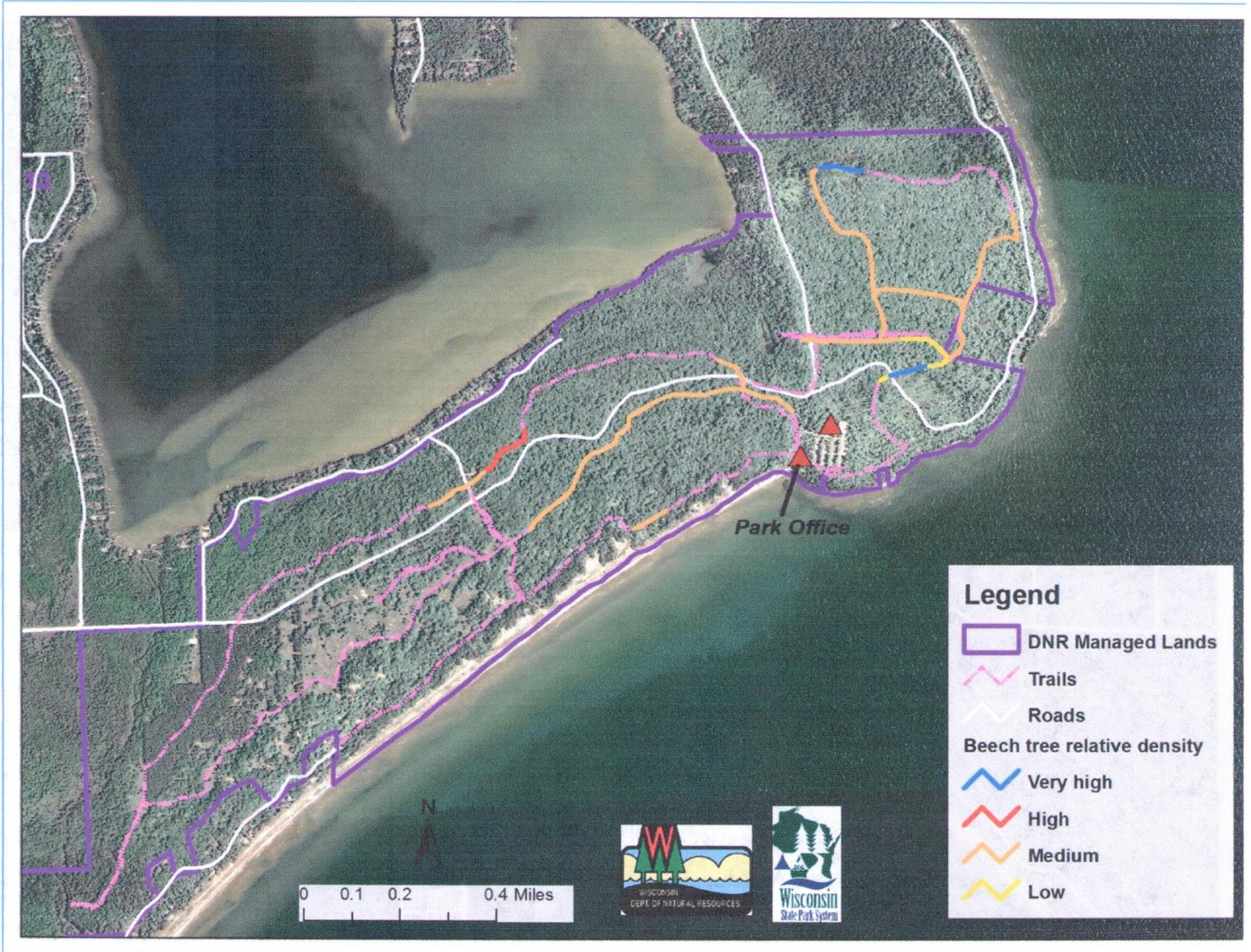


Figure 2. Whitefish Dunes State Natural Area. Red triangles indicate park buildings.

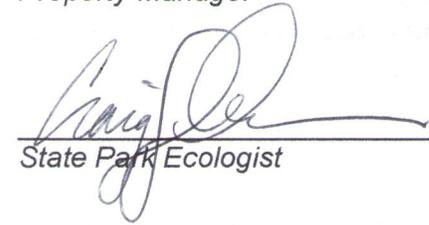


**Supporting Approvals**



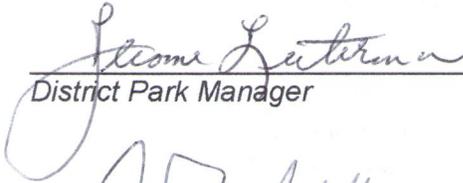
Property Manager

Date: 1-28-14



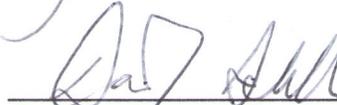
State Park Ecologist

Date: 1/30/14



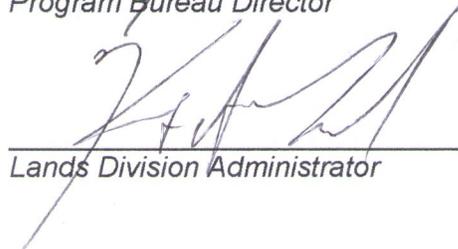
District Park Manager

Date: 1-28-14



Program Bureau Director

Date: 1/30/14



Lands Division Administrator

Date: 2/21/14

Supporting Information

Purpose and need for the plan change (include background and history as appropriate):  
The 1977 Master Plan for Whitefish Dunes State Park restricts forest management to pine plantations. Otherwise vegetation management will be kept minimal. This proposed plan variance identifies specific actions related to hazard tree management to be taken prior to the revision of the master plan.

How the proposed plan change is supported by or is inconsistent with the property vision, goals, and objectives or other plan provisions:

Section IX.C. Management of the current Whitefish Dunes State Park Master Plan states:

Vegetation Management will be kept minimal. Preservation rather than manipulation will be stressed, meaning the continuation of natural succession of plant communities. The 40 acre pine plantation located in the southwest of the park should be managed to preserve its beauty and prolong the life of the stand.

Since the 1977 master plan was approved, new forest health concerns, especially beech bark disease, have emerged necessitating hazard tree management.

Anticipated primary benefits of the proposed plan change:  
The primary benefit is the reduction of hazard trees resulting from dead and dying beech in and adjacent to designated use areas.

**Additional anticipated benefits:**

Another benefit may be the educational possibilities, demonstrating to park visitors how beech bark disease and other diseases and invasive species can affect forests and other natural communities.

**Unavoidable adverse impacts:**

There may be some short term land scarring from harvesting. Negative aesthetic impacts will be minimized and mitigated by closely following aesthetic management guidelines. Regrowth will be by natural recruitment and succession.

**Summary of any alternatives considered:**

No action will result in the creation of many additional hazard trees due to dying beech trees. Beech trees affected by BBD can snap off unpredictably. Another alternate would be to manage each individual hazard tree as it affected by BBD or other causes of mortality. The individual management of that number of trees is beyond the capacity of the staff at the park and work unit.

**Compatibility with statutes, codes, and department policies:**

Vegetation and forestry management is supported by the Bureau of Parks and other department policies. The limiting factor at this time is the Master Plan for Whitefish Dunes State Park. The proposed management will not set a new precedent as similar forest management activities have and are occurring on other state parks. The prescribed vegetation management practices will not preclude other management options that may be considered for these areas in the upcoming Master Planning process. Hazard tree management is also supported by the Recreation Area Operations Handbook (2505.1), within Section 804 "Tree removal in intensive areas of state properties."

**Federal aid limitations:**

White Fish Dunes State Park received Land and Water Conservation Fund (LAWCON) dollars in the 1960s.

**Summary of Public Comments:**

The draft variance was available for public review and comment from December 20, 2013 – January 6, 2014. This draft was posted to the Whitefish Dunes State Park webpage and a press release was sent to local media outlets. One written comment was received in support of the draft variance.

## Appendix A

### Wisconsin State Park System Guidance for Managing Forest Lands

#### Background

Wisconsin's forested lands are some of our state's most valuable resources, prized by visitors and citizens alike. People come to these special places for moments of quiet reflection or simply to be in the great outdoors. They pursue recreational opportunities ranging from biking and hiking to camping, wildlife watching, and cross country skiing.

Scenic beauty — or “visual quality” — is one of the primary reasons people choose to spend their recreation and vacation time in or near forested areas and within Wisconsin State Park System (WSPS) properties. They are also attracted by the serenity and solitude of the outdoors.

Forested landscapes inspire spiritual and emotional connections resulting in deeply personal experiences for many people.

Protecting and enhancing this sensory experience is a priority for those entrusted with managing WSPS properties. In addition, management must work to sustain healthy communities that provide economic, social, and ecological benefits, now and for future generations. This careful oversight of our natural resources is a cornerstone of the WSPS mission.

This document provides guidance related to the management of WSPS forested lands, including desired outcomes that will preserve the value of these resources for millions of WSPS visitors, into the future.

#### Opportunities for Management

Forested lands on WSPS properties include a wide variety of natural community types, as well as altered landscapes. These various types of forests allow for different types of management activities that should be determined through careful planning (including property master plans and resource management plans) and consultation with foresters, wildlife managers, and other resource experts. All management actions must be consistent with the ecological capability of the landscape, optimize forest health and maintain or enhance the recreational, aesthetic, and other social aspects of the property.

Forest management activities may be undertaken to accomplish a variety of objectives on a property. Forests altered by human activities like fire suppression, development, or removal of hazard trees may be managed to restore the lands to a natural condition. Landscapes disturbed by natural phenomena such as tornadoes, fires, pests, or disease may be managed by allowing recovery to occur naturally. In cases where visitor safety or park developments are threatened, more active management efforts may be necessary. And, forests affected by exotic species or nuisance wildlife may be restored through more intensive management activities.

Just as forested lands reflect a diversity of habitats, so, too, forest management encompasses many different approaches. In some cases, management activities are virtually undetectable to property visitors. In others, timber sales are obvious, at least in the short-term. Over time, as these landscapes regenerate, the scenic beauty is restored and the benefits of management become much more apparent. In all cases, management must be conducted with both the forest resource and the visitors in mind.

#### Visual Quality Management

Property visitors place an extremely high value on the aesthetics and scenic beauty of forested lands. Thus, visual quality is one important aspect of integrated forest management. Visual quality management can:

- Enhance the aesthetic value of forested lands for recreational users, contributing to a healthy tourism economy.
- Encourage public acceptance of forest management and timber harvesting, thereby building support for Wisconsin's forest industries.
- Minimize visual and audible impacts of forest management activities including perceived size of harvest areas, presence of logging slash, timber harvest landing operations, road building, site preparation, and herbicide treatment.
- Promote more natural-appearing forest stands.
- Provide opportunities to educate property visitors about forest management practices, benefits of sustainable forestry, and other related concepts.

Within any property, different forested landscapes have varying levels of visual sensitivity that are determined by factors including:

- Perceived degree of sensitivity to landscape aesthetics of users of that travel route,
- Volume and type of use the travel route or recreation area receives, and
- Speed of travel within the route or area.
- Terrain/topography

Based on these factors, the WSPS identifies three levels of visual sensitivity to be applied to forested lands. The definitions of these various levels of sensitivity will assist the property manager and forester in development of prescriptions specific to each site being managed. Language insuring proper completion and compliance with aesthetics practices should be included in timber sale and silvicultural activities contracts.

#### Most Sensitive

Applies to travel routes and use areas where significant public use occurs and where visual quality is of high concern to typical users.

Examples of such areas may include picnic areas, campgrounds, nature study

areas, local roads, recreational lakes and rivers, designated trails and surrounding viewshed and other areas that provide a high level of scenic quality.

□ Moderately Sensitive

Applies to travel routes or recreation areas, not identified as “most sensitive,” where visual quality is of moderate concern to typical users. These types of areas provide moderate to high scenic quality but less significant public use

Examples of these areas may include public highways and local roads, recreational lakes and rivers, and areas receiving a moderate amount of public use outside designated use areas.

□ Less Sensitive

Applies to travel routes, recreation areas or all other lands, not identified as “most sensitive” or “moderately sensitive,” where visual quality is of less concern to typical users.

Examples of these areas may include remote local roads and low-volume local forest roads, areas removed from designated use areas with limited access, and remote areas receiving minimal public use.

By attempting to manage visual quality of forested lands based on these categories and following the Forest Management Guidelines, Timber Sale Handbook and Aesthetic chapter of the Silviculture Handbook, property managers can minimize visitor disruption and maintain or enhance scenic resources.

Overall Management Priorities

Sustaining healthy forests is a vital role of WSPS properties, and the key to sustaining healthy forests is pro-active management. To ensure that management practices are consistent with the goals and objectives of the WSPS, several management priorities have been established but may vary depending on site characteristics:

- Aesthetics: Protect scenic views and allow forest cover to provide settings for solitude and privacy.
- Recreation: Sustain large canopy cover and shade in picnic areas, campgrounds, along nature trails and high use areas.
- Habitat: Provide habitat for a wide variety of wildlife and plants, including endangered and threatened species.
- Forest Health: Allow for regeneration of the forest through quality forest management and seek opportunities that enhance or maintain the overall health and vigor of the forest ecosystem.
- Pest management: Manage invasive plant and animal species, pests, diseases, and nuisance wildlife through prevention, control, and eradication activities.
- Education and research: Provide opportunities for interpretation, education, and scientific research.

- Water quality: Sustain and enhance local watersheds and water resources including erosion control along waterways, trails, and other property features.

The Wisconsin State Park System has created these priorities for forest management experts to utilize when preparing forest management plans for WSPS properties. These priorities take into consideration both visitor demands and the need for sustaining high quality, healthy forests. Of course, site capabilities help define sustainable forestry practices. Each particular growing space has its own set of environmental conditions affecting tree growth. To achieve long-term health and vitality of forests, factors like soil type, aspect, and climate that influence moisture and nutrient supplies must be considered. The art and science of sustainable forestry blends program priorities with site capabilities to adapt high quality forest management systems.

#### Desired Outcomes

By considering these overall priorities and managing for visual quality, property managers and resource professionals can prepare property and/or site specific forest management prescriptions that will create desirable outcomes for the WSPS. These desired outcomes include:

- Maintenance and/or enhancement of visually acceptable and functional forest cover for areas within easy view of WSPS users, particularly in picnic areas and campgrounds, along waterways and trails, and next to park roads and scenic outlooks.
- Use of appropriate forest management techniques to prevent or minimize damage from pests, disease, and nuisance wildlife.
- Planning of approved timber harvests to maintain visual quality in high and moderate use areas; require buffers between harvest areas and designated use areas, roads, and trails; and require immediate attention to negligent harvest practices. Consider contract language that includes specifications for waste, stump heights, forest fire prevention, slash management, sale area use and cleanup, and best management practices.
- Restoration of natural forest communities where practical.
- Development of areas for education and interpretation on topics such as forest protection and management.

January, 2014

## Appendix B

### WSPS Timber Harvest Prescription, Prospectus, and Contract Considerations and Standard Language

Revised: July 19, 2012

For timber management that is allowed under the existing master plan, the property manager and local forester will develop a timber sale proposal. The state parks ecologist will help the property manager evaluate the proposal. After making any needed modification, the proposal will be sent to the appropriate Parks district manager for final approval. This process is meant to help park managers and provide consistency throughout the State Parks system.

**Note:** For State Ice Age Trail Areas (SIATAs), consult Ice Age and North Country Trails, NR 1.29 (7)(c) and (d) ([http://docs.legis.wi.gov/code/admin\\_code/nr/1/29](http://docs.legis.wi.gov/code/admin_code/nr/1/29)) for allowable pre-master plan vegetation (including forest) management.

While guidelines and best management practices for timber management are found in Wisconsin Forest Management Guidelines (WFMG, PUB-FR-226 2011, <http://dnr.wi.gov/forestry/publications/guidelines/>), Silviculture Handbook (HB24315, <http://dnr.wi.gov/forestry/publications/handbooks/24315/24315.pdf>), and best management practices for water quality and invasive species handbooks, forest management on WSPS properties may require special considerations. The following are points of emphasis for Parks properties including references to Wisconsin Forest Management Guidelines and other materials where appropriate.

#### A. Timber sale planning

1. The following reviews must be completed and documented before the sale is approved: NHI ([http://intranet.dnr.state.wi.us/int/land/er/nhi\\_portal/](http://intranet.dnr.state.wi.us/int/land/er/nhi_portal/)) and archaeological (<http://intranet.dnr.state.wi.us/int/mb/codes/MC181010.pdf>). The sale may need to be modified based on the results of the reviews.
2. Harvest activities on properties that have federal funding involvement (for example, Land and Water Conservation Fund, a.k.a. LWCF) must be NEPA compliant (<http://wsfrprograms.fws.gov/subpages/toolkitfiles/nepa-g2s.pdf>). Contact the WDNR compliance officer if you have questions.
3. Determine how the timber sale will be monitored for contract compliance by the property manager and local forester.

#### B. Harvest goals

1. How does the sale fit with the master plan, NR 44 classifications, and with landscape considerations (WFMG Chapters 2, 3, and 10)? The latter consideration is important for forest certification among other reasons.
2. What is the purpose of the sale: perpetuation of type, conversion to a different type, or other?
3. How does the sale and sale prescription fit into aesthetic, recreational, and natural resource considerations outlined in "Managing Forests on State Parks Lands" (<http://intranet.dnr.state.wi.us/int/land/parks/ResourceManagement/Forests.html>) and Chapters 3, 4, and 18 of WFMG?

- C. Timing and layout (skid roads, landings)
1. Timing restrictions will be used to lessen ground disturbance, to minimize spread of invasive species, to reduce conflicts with recreation, etc. Do not harvest during weekends (WFMG Chapter 11).
  2. Establish landings to minimize disruption of recreational activities and lessen aesthetic impacts as well as BMPs for water quality and invasive species (WFMG Chapters 5, 8, 12, 13, and 18).
  3. Use or crossing of recreational trails should be avoided or, at the very least, minimized.
  4. Access roads and skid roads should be established to minimize damage to recreational trails. *Linear Use of State Trail Corridors for Logging policy 62-15 in HB2205 (Land Acquisition and Sales) must be followed when trails may be impacted by timber harvest.*
  5. Harvest activities adjacent to trails, even if the trail itself is avoided, can have a major impact on recreational use. For example, changes to local hydrology due to harvest activities can flood what was previously a trail that shed water. The topography of not only the immediate harvest area but the larger watershed and other facilities and resources within that area should be taken into consideration.
  6. The park manager and local forester will identify and designate landings and access and skid roads.
  7. The designated landings and access and skid roads will be shown, on the ground, to the logging contractor prior to any timber harvest (WFMG Chapter 13).
- D. Post-harvest treatment
1. Develop and implement remediation requirements for any harvest-associated rutting or other ground disturbances.
  2. Determine post-harvest treatments, e.g., plantings, need and type of scarification, prescribed burning (WFMG Chapters 13, 15, and 17).
  3. It is critical that funding is incorporated into the harvest proposal for post-harvest activities (plantings, fencing, invasive species control, signage, etc.).
  4. The planting plan should be developed by property manager and local forester, reviewed by property manager and parks ecologist, and approved by district park supervisor. It should include post-planting mileposts and treatments. Depending on deer and other herbivore densities, fencing or tree tubes may need to be included in the plan (WFMG Chapters 13 and 15).
  5. Species selected for plantings should be native and appropriate to habitat type. Plantings should not be done in rows; grouping or single plantings should be used for a more natural appearance.
- E. Post-harvest standards
1. Stump height: use standard DNR contract language.
  2. Feather or scallop edges of timber sale to soften the visual effects of harvest (WFMG Chapters 4 and 13).
  3. Unmanaged slash can be aesthetically unappealing. It can also significantly increase the cost of future trail construction. All slash should be removed entirely or hauled a minimum of 50 feet from trail/road edges and flattened so that it is no taller than 18 inches above the ground. If appropriate to the site, prescribed burns could be used to reduce slash within a sale boundary. See Chapters 13 and 17 in WFMG.

4. Skid roads, log landings, and interior of harvest stands will be free of forest products and ruts and slash and will meet the aesthetic standards in the Silvicultural Handbook (2431.5) and Chapter 13 in WFMG at the end of the timber sale. In other words, recreational trails and log landings will be restored to pre-harvest conditions and slash reduced for aesthetics.
5. Harvest activities that alter water flow and run-off (e.g., ruts from equipment, re-grading for access) can affect trails, even those that are some distance from the harvest area. Any such alterations resulting from timber harvest must be restored to pre-harvest conditions.

F. Invasive species

1. Assess invasive species when proposing a timber sale. What pre- and post-harvest treatments are necessary (e.g., herbicide application, introduction or re-establishment of native herbs and shrubs)? How will those treatments be accomplished, including funding? What measures are there to avoid or minimize exposure to invasive species?
2. Order of harvest can be useful in lowering risk and transporting invasive species. (e.g., harvest in areas with lesser amounts of invasive species first, then areas with heavier infestations). Invasive species concerns and BMPs are embedded throughout WFMG chapters and specifically in Chapter 8. Also, some Parks properties have a current invasive species management plan which should also be consulted when planning and implementing a timber sale. Disease control is also referenced in Chapter 8 of WFMG.
3. Follow equipment BMPs  
(<http://council.wisconsinforestry.org/invasives/forestry.php>,  
<http://dnr.wi.gov/invasives/pdfs/EquipOper.pdf>).
4. Consider how skid roads and log landings should be laid out with regard to invasive species (WFMG Chapter 8 and elsewhere).

G. Public notice and adjacent landowner contacts

1. Public notification materials should be posted at the park office and at sale site. Include a map that shows sale boundaries in relation to trails and other recreational facilities, anticipated window of harvest activities, type of treatment, justification for harvest, long-term goals of the harvest, paint colors that specify what trees are being left or harvested, access routes and log landings, and contacts for additional information or comment.
2. Discuss proposed timber management with Friends group and any other regular volunteer groups for the property and obtain concurrence.
3. Notify local media; provide them all of the material that is posted at the park.
4. The property manager and local forester are responsible for verifying property boundaries and notifying private landowners if a sale abuts private land.