NOTE: *This is a summary document developed by the University of Minnesota's Boreal Forest and Community Resilience Project to inform an update to the Minnesota Forest Resources Council's Northeast Landscape Plan.*
For more information, please visit: http://www.frc.mn.gov/initiatives_llm_committees_northeast.html

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Mille Lacs Uplands Subsection Forest Resources Management Plan: Strategic Direction and Stand Selection Results Final	Minnesota Department of Natural Resources	2008	http://www.dnr.state.mn.us/forestry/subsection/millelacs

VISION(S)

None identified.

Final issues, goals, and strategies are broken down into four categories.

A: Desirable future forest conditions

B: Forest spatial patterns

C: Timber productivity

D: Public Involvement and collaboration

(Retrieved from 3-1. Final Issues, DFFC, and Recommended Strategies section of Mille Lacs Uplands SFRMP.)

***Interwoven into most of the issues is recognition of the value of maintaining and enhancing biological diversity in the subsection in order to increase the resilience of the forested landscape (i.e., its resistance to disease and disturbance and ability to provide a variety of resources (3-1).*

A. Issues, goals, and strategies related to DESIRABLE FUTURE FOREST CONDITIONS

ISSUES (Issues)

1. Age-class structure
2. Vegetation diversity
3. Wildlife habitat diversity
4. Ecologically significant areas

GOALS (General Direction Statements) (# links to issue)

1. Forests in the Mille Lacs Uplands, Glacial Lakes Superior Plain, and St. Croix Moraines (planning area) are diverse in age and structure and there are both older and young, regenerating forests (1).
2. At least 10 percent of lands administered by the Divisions of Forestry and Wildlife in the planning area are managed as older forests (1).
3. ERF (extended rotation forest) areas are located where they will provide the desired timber quality and old forest attributes.
4. Native plant communities that were historically well represented in the planning area are well represented today (2).
5. Benefits derived from efforts to regenerate forests after harvest are maximized (2).
6. The amount of white pine in the subsection has increased by 100 percent over 2002 levels. *Note: Historically, white pine most often occurred as a component in other forest types rather than as a pure type. It is most successfully introduced in stands with some residual overstory; therefore, reaching this goal may not actually effect a significant change in the number of acres of white pine cover type. (2)*
7. The amount of white cedar in the subsection has increased over 2002 levels; an improved age-class structure indicates greatly improved regeneration success (2).
8. The birch cover type has increased by 50 percent over 2002 levels and shows a greatly improved age-class distribution (2).
9. Healthy butternut specimens on state and private lands are protected pending the development of trees resistant to butternut canker (2).
10. The aspen cover type is reduced by 5 percent from 2002 levels by selective removal of aspen to favor an existing species, natural stand conversion through succession, replanting, or underplanting with another species (2).
11. Specific areas are managed to maintain open landscapes needed to maintain populations of species of management concern (2).
12. State Nurseries have access to sources of seed and other propagation materials from a variety of environments. The sources are identified and protected in the course of forest management (2).
13. The oak type (red oak, bur oak, and white oak) has increased slightly (2 percent) over 2002 acreage. Oak stands are managed using even-aged or two-aged systems, with even-aged predominant (2).
14. Northern Hardwood stands average sixty to eighty years of age with representatives of all age classes. Stands have between eighty and one hundred forty sq. ft. of basal area, with most being maintained between eighty and one hundred twenty sq. ft. After the year 2122, northern hardwood acres should be equally divided among basal area classes 80-100, 101-120, and 121-140 for perpetuity. *Note: Although the goal is to maintain northern hardwood acres, we may see a slight decrease in acres as some sites that have been identified as low quality hardwood sites are converted to a more suitable cover type for the site.* (2)
15. New infestations of invasive exotic species on public forest lands are rare, and the spread of existing populations is controlled (2).

16. State lands contribute important habitat and population support for the 439 permanent and regular resident wildlife species that exist in Minnesota. Populations for various species are monitored and habitats for game and nongame species are valued and protected (3).
17. Areas of unusual ecological significance are valued and protected as areas for study and conservation of both plant and animal rare species, sources of biological diversity, and ecological benchmarks (4).
18. Forested rivers in the planning area have high water quality providing important habitat for fish, amphibians, and invertebrates, including a number of federally listed mussel species (4).

STRATEGIES (General Direction Statement Strategies) (# links to goal)

1. Use harvest planning to improve the age class distribution of all forest types in the subsection (1).
2. Designate stands as extended rotation forest (ERF) that include a variety of age classes (1).
3. Include short-lived (early successional) species such as aspen, jack pine, and birch in ERF areas (1).
4. Continue to harvest aspen stands that are classified as "high-risk" due to age, and will be maintained as aspen, at an accelerated rate (1).
5. Model current and future forest age-calass distributions for the planning area, annually (1).
6. Ensure that the oldest age classes are present on the landscape in adequate amounts (1).
7. Continue to refine the list of old-growth forests by evaluating and prioritizing within existing old-growth teams (1).
8. Coordinate with the Minnesota County Biological Survey and other programs to identify additional old-growth forests (1).
9. Use ERF designation to buffer impacts to designated old-growth forest (1).
10. Plan timber sale access to minimize undesirable recreational impacts to designated old-growth forests and adjacent special management zones (1).
11. Identify opportunities to locate ERF in specific riparian, corridor, and WildlifeManagement Areas, and adjacent to designated old-growth forests (2).
12. Identify some highly productive forest lands for management as ERF, for the production of high quality timber (2).
13. Emphasize early successional species such as aspen, jack pine, and birch in these ERF areas, in addition to typically long-lived (later successional) species (2).
14. Concentrate ERF in areas that have historically supported the oldest forests, and the highest proportion of older forests, in the planning area. Such areas provide site conditions and have experienced disturbance regimes that allow the development of old forests (2).

15. Categorize each Landtype Association (LTA) (or LTA group) by its ability to develop and maintain older forests (2).
16. Participate in the identification of LTAs that are appropriate for open landscape management; these LTAs may not be the best choices for ERF (2).
17. Consider existing large patches and identified forested corridors as areas of ERF concentration (2).
18. Allocate ERF on two levels (or scales), both of which are below the subsection level:
    a. At the unit or landscape level/LTA level -- at this level historical disturbance regimes are most important (3).
    b. At the stand level -- at this level existing corridors, riparian zones, and oldgrowth special management zones are important.
19. Concentrate ERF in areas of the subsection(s) that have historically supported the oldest forests and highest proportion of older forests. Such areas provide site conditions and have experienced disturbance regimes that allow the development of old forests (3).
    a. Identify major disturbance regimes for the planning area.
    b. Plot DNR releves classified by Native Plant Community System (i.e., fire dependent vs. mesic hardwood) and native plant community class.
    c. Use this releve map to help decide where to concentrate ERF.
    d. Create a bearing tree cover for each Landtype Association (LTA) in the planning area and use that to estimate average tree age and age-class distributions for each LTAUse tree age and age-class distribution information to help inform decisions about how much ERF is desirable and where it should be located.
    e. Continue to work to achieve ERF goals during future planning periods.
20. LTAs provide the best landscape unit for basing decisions on allocation of ERF; in general, these units are homogeneous enough in terms of environmental conditions that each can be categorized by its ability to develop and maintain older forests (3).
21. The Division of Wildlife has identified certain LTAs that are appropriate for brushland management; these LTAs may not be the best choices for ERF (3).
22. Large patches and corridors identified by the SFRMP team's spatial concerns work group should be considered as areas of ERF concentration (3).
23. Identify those species that were historically more common and the native plant communities in which they thrived, and focus regeneration and reintroduction efforts in those areas (4).
24. Place a high priority on efforts to map the occurrence of native plant communities and native plant community systems in the subsection(s) (4).
25. Continue to develop capability to use native plant community and soil data to make decisions about appropriate forest cover types for a site (4).
26. Use native plant community keys to guide forest management decisions in the subsections; there will be a number of options from which to choose on any given site (4).

27. Identify stands most appropriate for conversion to other types using site index, risk criteria, native plant community, and soils data (4).
28. Work to achieve natural regeneration if possible, use artificial regeneration when necessary, and make a commitment to protect regeneration (4).
29. Develop management plans specific to the needs of forest types that have been identified as lacking adequate regeneration (see specific cover-type notes in this document) (5).
30. Engage in routine monitoring and evaluation of regeneration efforts (5).
31. Work closely with Division of Wildlife resource managers to ensure that population goals for wildlife and regeneration plans are not in conflict in a given area (5).
32. Continue to experiment with regeneration strategies that appear less vulnerable to depredation (5).
33. Take every precaution to avoid damage to the site during harvest; this is often at the root of regeneration problems, which are then compounded by faulty regeneration practices (5).
34. Document successes and failures in regeneration efforts in order to avoid repeating errors (5).
35. Protect soils and enhance regeneration by regulating season of harvest when necessary (5).
36. Follow Forest Development Manual (Minnesota DNR, 1994-5) guidelines for harvesting, site preparation, and artificial regeneration to ensure greatest chance of success in artificial regeneration (5).
37. Use Ecosystem Classification System (ECS) field guides to help ensure DNR resource managers make sound decisions in artificial regeneration projects (5).
38. Completely document all species within the project area (all woody species that occupy a site, not just the species of interest) (5).
39. Implement the guidelines provided by Minnesota DNR's *White Pine Management Policy* (Minnesota DNR, 1998) (6).
40. Focus regeneration efforts in areas where white pine was historically abundant in the planning area, where there is a low incidence of blister rust, and where slopes are adequate to permit air drainage (6).
41. Make a commitment to protect natural and planted white pine regeneration in focus areas from depredation; enlist the support of other DNR divisions and volunteers, where possible (6).
42. Identify native plant communities in the subsection that support the growth of upland and lowland white cedar (7).
43. Focus regeneration efforts on areas that have existing white cedar, especially those surrounded by large contiguous patches of forest (7).
44. Continue to refrain from harvesting upland white cedar in the subsection until adequate regeneration is identified or established in focus areas (7).
45. Identify native plant communities in the planning area that support the growth of quality birch (8).

46. Engage in regeneration efforts, including site preparation and planting, if needed to ensure adequate birch regeneration in selected areas, e.g., in gaps created in mixed hardwood stands (8).
47. Ensure that birch inclusions are managed for regeneration (8).
48. Ensure that harvest of decadent birch stands in the subsection be addressed as a high priority to maximize chances for natural regeneration (8).
49. Combine Strategy (48) with post-harvest preparation techniques to improve regeneration (8).
50. Implement the recommendations of current research into sustainable harvest of birch bark from live, standing trees *(the subject of ongoing collaborative research by DNR, the Natural Resources Conservation Services, and the Mille Lacs Band of Ojibwe)* (8).
51. Continue to implement butternut harvest moratorium on state lands (Minnesota DNR, 1992) (9).
52. Identify stands that can be maintained as mixed aspen and conifers by retaining and enhancing advanced conifer regeneration (10).
53. Identify aspen stands that are "high risk" due to disease and could be converted to another type (10).
54. Use historical records, native plant community, soil, and wind firmness data to determine appropriate conversion, if natural conversion is not apparent (10).
55. Reserve long-lived conifer types as clusters in hardwood stands for seed sources (10).
56. Encourage and nurture natural succession to mixed hardwoods on appropriate sites (10).
57. Collaborate with Divisions of Wildlife and Ecological Services to identify specific open landscapes that will provide the most benefit to associated wildlife species and maintain those areas as non-forest (11).
58. Provide maps of critical open landscape habitat areas for use by those involved in land-use planning efforts (11).
59. Collaborate with other divisions and other landowners to actively maintain open landscapes in designated areas using appropriate management techniques (11).
60. Encourage field personnel to document location of specimens or populations appropriate for use as seed sources. Sugar maple, basswood, white pine, yellow birch, oak species, and bigtooth aspen are of particular interest for use in tree improvement programs (12).
61. Identify and document pure stands of tree species that are easily accessible (12).
62. Use locally adapted seed (12).
63. Manage several stands of trees within a subsection for seed production as a way of maintaining sufficient diversity when the seed is deployed for regeneration (12).
64. Use seed collected from several stands of trees to increase variation among planted or seeded stands (12).
65. Mille Lacs Uplands falls within the Central Minnesota seed zone (Minnesota DNR, 1989). Using seed from this seed zone (even if the seed is from another subsection) has been

determined to be appropriate and will further increase genetic diversity among planted or seeded stands (12).

66. When establishing a seed production area, it is important to develop several acres with each acre retaining ten to fifteen trees. This will result in a sufficient number of trees providing ample genetic material to have a good "mix" and sufficient genetic variation. Establishing several seed production areas will increase genetic diversity (12).
67. Avoid thinning and other management when oaks are under severe stress from drought and/or defoliation (13).
68. Examine stands when basal area reaches 120 sq. ft per acre (13).
69. Thin stands to produce seven to fifteen cords per acre before regeneration harvest (13).
70. Accept other high quality species in wet-mesic communities (13).
71. Regenerate by use of shelterwood harvests, post-harvest timber standimprovement, weeding, and possibly planting to retain oak (13).
72. Evaluate sapling stands for precommercial release and thinning (13).
73. Consider using prescribed fire to regenerate oak on dry-mesic communities (13).
74. Re-examine stands on ten to fifteen year intervals (13).
75. Initiate regeneration harvest on sites that meet criteria (13).
76. Consider converting poor sites (SI less than 55) to a more appropriate cover type for the site (13).
77. Thin stands to produce an average of seven cords per acre at harvest (14).
78. Identify low-quality hardwood stands for conversion or rehabilitation using an clear-cut technique (14).
79. Thin better quality northern hardwood stands for long-term stand improvement (14).
80. Complete native plant community classification for each site to assess its potential for future management (14).
81. Continue to develop educational materials that help adjacent landowners recognize exotic species and understand appropriate control methods (15).
82. Balance the need for recreational trails with the risk of introducing exotic species into all public forest areas (15).
83. Understand and communicate the distinction between invasive and non-invasive exotic species (15).
84. Identify wildlife management species for the subsection that represent the various habitat and ecological processes necessary to ensure overall sustainability and viability of wildlife (16).
85. Work with the Divisions of Wildlife and Ecological Services to define which wildlife species can be identified as representative wildlife management species (16).
86. Use wildlife resource assessment information about representative wildlife management species to guide/support forest management decisions concerning: 1) species distribution and population estimates, 2) habitat associations, 3) landscape habitat elements, 4) site level habitat elements, 5) management practices, and 6) monitoring and adaptive management strategies (16).

87. Participate in designation of open landscape complexes to be maintained as habitat for open-landscape-dependent wildlife species (16).
88. Identify and maintain long-lived conifer secondary species in hardwood stands as winter cover (16).
89. Identify and maintain mast species as leave trees on harvest sites (16).
90. Consult the most up-to-date rare features database layer available through the DNR Geographic Information Systems data library (17).
91. Flag stands that include a rare feature element during stand selection (17).
92. Following stand selection, DNR Ecological Services Division will confer with Forestry staff (on Forestry-administered lands) and Wildlife staff (on Wildlifeadministered lands) to determine adjustments (if needed) in proposed treatments to protect the element occurrence (17).
93. Work with the Divisions of Ecological Services and Wildlife to identify areas of high biological diversity on State land that are not already protected by Scientific and Natural Areas, state Parks, or Wildlife Management Areas, and consider giving them special management to conserve their unique assets (17).
94. Determine the kind of forest resource management that is required to conserve each high biological diversity area, if appropriate (17).
95. Consider including high biological diversity areas in ERF management areas and/or in forested corridor areas, as appropriate (17).
96. Adhere to MFRC voluntary site-level guidelines for trout streams when conducting forest management activities in riparian areas of rivers and streams that contain trout or listed mussel species and MFRC standard riparian area voluntary site-level guidelines (Minnesota FRC, 1999) in other riparian areas (18).

B. Issues, goals, and strategies related to FOREST SPATIAL PATTERNS

ISSUES (Issues)

1. Connectivity
2. Patch management
3. Fragmentation

GOALS (General Direction Statements) (# links to issue)

1. Forested connections between existing large blocks of forested land and riparian areas are maintained and enhanced to provide for wildlife movement, protect water resources, and prevent habitat fragmentation and consequent isolation of native plants and animals (1).
2. Forests are managed for a variety of patch sizes. Large, contiguous patches of forest are maintained in designated areas, while other parts of the Mille Lacs uplands are managed for smaller or medium patch sizes (2).

3. Forest managers carefully consider forest road construction. There is a high level of collaboration with federal and private landowners and local units of government to identify opportunities to share and minimize road construction (3).

STRATEGIES (General Direction Statement Strategies) (# links to goal)

1. Identify and maintain existing connections between large blocks of forest land (1).
2. Establish a corridor, a minimum of one-quarter mile (1320 feet) in width. This may or may not always be in the same location (1).
3. Manage forests in the designated corridor for a minimum average basal area of 60 sq. ft per acre. Where the management goal within the corridor is to maintain an even-aged species (aspen, jack pine, red pine, etc.) no more than one-half the width of the corridor may be less than 60 sq. ft of basal area at any one time (1).
4. Any Division of Forestry-approved management activity that maintains these stand characteristics is acceptable (1).
5. Work with other land managers (federal, tribal, and county) to maintain forest land in the corridor in forested status. This will mean involving them and getting "buy-in" to the concept of establishing a forested corridor (1).
6. Plan subsection timber harvests taking into consideration the desired future distribution of patch sizes (2).
7. Conserve existing large contiguous mature forest areas to provide critical habitat for multiple forest interior species, e.g., red-shouldered hawk nest sites (2).
8. Manage existing large blocks of state forest land, and blocks of state forest land that are adjacent to large blocks on other ownerships, for large patches, giving priority to those areas in Strategy 7, above (2).
9. Continue to use information on historical disturbance regimes to help refine planning for management of large, medium, or small patches (2).
10. Continue to increase the proportion of state forest land managed according to uneven-aged management regimes as a way of achieving a more desirable patch size distribution (2).
11. Manage state forest lands in the planning area to achieve the following distribution of patch sizes (percent of Forestry and Wildlife lands) (2):
    a. Very large (640 acres +) 10%
    b. Large (250-639 acres) 15%
    c. Medium (100-249 acres) 40%
    d. Small (40-99 acres) 25%
    e. Very small (< 40 acres) 10%
12. Take care to maintain existing patches in the very large and large size categories (2).
13. Plan the fate of new roads and trails prior to construction so that appropriate action can be taken to either maintain them, or obliterate them from the forest (3).
14. It is undesirable to have roads developing in an unplanned way as a result of recreational use of logging trails (3).

15. Follow the DNR State Forest Road Manual (Minnesota DNR, 1994-6) for development of new roads (3).
16. Adhere to Forestry-Wildlife Guidelines to Habitat Management (Minnesota DNR, 1985-2) Roads and Trails section (3).
17. Contact county land departments and other appropriate land managers (e.g., Tribal governments, The Nature Conservancy) to arrange cooperative use of existing roads to keep new road construction to a minimum (3).
18. Provide a draft of road access needs for public review as part of the forest resource planning process (3).

C. Issues, goals, and strategies related to TIMBER PRODUCTIVITY

ISSUES (Issues)

1. Identification and management of highly productive sites
2. Utilization and marketing of forest resources
3. Increase site-level productivity
4. Improved forestry data management

GOALS (General Direction Statements) (# links to issue)

1. Timberlands in the planning area are highly productive. They produce good quality hardwood and softwood logs for manufacturing and export, as well as a good quantity of pulpwood to supply Minnesota's pulp and paper industries (1).
2. Utilization of species and grades of timber are optimized to maximize the benefits these resources provide (2).
3. Ecosystem classification tools have helped DNR resource managers identify species most likely to be productive on a specific site, as indicated by soil and native plant information (3).
4. Diverse, high-quality mixed hardwood stands are managed by skilled forest managers and selectively harvested by highly trained logging professionals for continuous quality improvement and production of timber, while maintaining forest cover and establishing regeneration (3).
5. Forest inventory data are detailed and current enough to be relied upon in a wide variety of planning and analysis projects. Forestry databases provide a link between generations of forest managers with respect to both strategic and operational decisions that have been made for a specific forested community (4).

STRATEGIES (General Direction Statement Strategies) (# links to goal)

1. Identify areas that are good examples of their type, occur on wind firm soils, can be managed for production of high quality hardwoods, and/or include large contiguous

forested patches for wildlife habitat. Consider thinning healthy aspen types in ERF as well as dense hardwoods and conifers to produce quality timber for the future (1).

2. Use Site-Level Guidelines for all activities to ensure that site quality is maintained (1).
3. Increase hardwood-marking efforts as resources allow (1).
4. Use ECS and local knowledge to identify aspen stands that would be appropriate for conversion to mixed hardwoods, and manage these for quality hardwoods using selective harvest and thinning techniques (1).
5. Identify advance regeneration of long-lived conifers in less productive aspen stands, and plan for their conversion to pine, spruce, and fir types (1).
6. Improve production of quality aspen by continuing to harvest high-risk aspen stands that are to be maintained in the aspen type at a high rate, to avoid conversion to other types.
7. Investigate potential for thinning aspen to increase growth and produce high-quality logs on selected sites (1).
8. Use site-level ecosystem classification keys to identify the native plant community type on a given site and make decisions to manage for appropriate forest types. Sites that are managed for appropriate forest types, have good access, and where managers are committed to continuous improvement have the greatest potential for optimizing timber productivity for the present and the future (1).
9. Focus management activities intended to help stands approach their full production potential on sites with fewest conflicting priorities (rare features, old-growth forest, poor access, etc.) (1).
10. Promote the use of lesser-utilized species and identify potential markets for underutilized species to DNR resource managers (2).
11. Communicate changes in wood and non-timber forest product markets to DNR resource managers (2).
12. Use ECS and local knowledge to identify stands that would be appropriate for conversion to mixed hardwoods, and manage these for quality hardwoods using selective harvest and thinning techniques (3).
13. Use ECS keys and historical information to identify sites appropriate for introduction or enhancement of long-lived conifer species (3).
14. Use ECS keys to help identify forest types that may be more productive than those currently on sites that are marginally productive (3).
15. Use innovative silvicultural techniques appropriately to manage for structural diversity and improved timber quality (3).
16. Promote the use of lesser-utilized species and identify potential markets for underutilized species to DNR resource managers (4).
17. Communicate changes in wood and non-timber forest product markets to DNR resource managers (4).
18. Create a priority reinventory list each planning period (5).
19. Support the development and use of databases that include planning elements in addition to inventory elements (5).

D. Issues, goals, and strategies related to PUBLIC INVOLVEMENT AND COLLABORATION

ISSUES (Issues)

1. Forest stewardship planning
2. Collaboration with other landowners
3. Public involvement and review

GOALS (General Direction Statements) (# links to issue)

1. Progress toward the vision for the subsection(s) forest (or DFFCs) is enhanced by engaging nonindustrial private forest landowners, providing a level of consistency across ownerships with regard to forest management in a given landscape unit (1).
2. Minnesota DNR resource managers routinely collaborate with other landowners to develop consistent goals and landscape-level strategic plans (2).
3. Losses due to forest insects and diseases on private and state forest land are minimized, as are the effects of pest management on nontarget species (2).
4. The public is involved in forest management planning during designated review periods (3).
5. DNR Forest managers minimize the visual and aural impact of forest management activities on users of state forests, thereby supporting and enhancing multiple-use values of state forest land (3).
6. Forest managers have stakeholder support for employment of a full suite of forest management options as appropriate to reach identified goals (3).

STRATEGIES (General Direction Statement Strategies) (# links to goal)

1. Consider the differences between private and public lands when developing DFFCs for the planning area. A one-size-fits-all future condition statement is not likely to be implemented or result in diverse and resilient ecosystems (1).
2. Develop a concise summary of landscape-level ecological conditions that can be used by stewardship plan preparers to help private landowners understand past, present, and future ecosystems. This will help landowners select realistic management objectives that are compatible with ecological and economic conditions (1).
3. Prepare or revise management prescriptions tailored to conditions in the planning area so that they can be incorporated into Forest Stewardship Plans (1).
4. Continue efforts to coordinate plans and management projects with federal and county land managers. Provide federal, tribal, and county managers the opportunity to participate in developing management plans for state lands. Review and comment on management plans for federal-, tribal-, and county-managed natural resources (2).

5. In counties that have land departments, send copies of annual vegetation management work plans to the county land commissioner to allow coordination of vegetation management and road access projects (2).
6. In counties that do not have land departments, offer to assist county auditors or the county board to develop land management plans for tax-forfeit land that will be retained in county ownership, as time and resources permit (2).
7. When feasible, develop joint contracts (e.g., site preparation, tree planting) on state and county lands to avoid duplication of effort and achieve economies of scale (2).
8. Maintain contact with other resource managers in the planning area and monitor their strategic planning documents as a way of maintaining an awareness of their long and short-term forest management goals (2).
9. Take advantage of opportunities to collaborate with other resource managers as resources allow (2).
10. When planning management activities, always make adjacent landowners aware of the plan and the purpose (3).
11. Maintain awareness of, and respect for, ownership boundaries (3).
12. Clearly mark and post all boundaries with signs where possible (3).
13. Encourage and actively solicit public input into forest management activities such as planning (4).
14. Apply visual quality management guidelines. Be particularly considerate of scenic values in areas classified as most sensitive (e.g., high-use recreational areas, adjacent to recreational lakes and streams, solitude areas) (5).
15. Manage expectations and perceptions by informing and educating stakeholders about the need for and expected impacts of management activities prior to, during, and after the activity (5).
16. Use opportunities to communicate to the public about management options, risks, and benefits as they arise (6).
17. Use historical disturbance regime and range of natural variation data as they become available to help determine appropriate management techniques for landscape areas (6).
18. Document management prescriptions and choices as they are made, to facilitate communication and public education (6).
19. Use pre-treatment monitoring and post-treatment monitoring as learning and communication tools to justify choices and outcomes (6).