

## Appendix J. Achievement of Forest Plan Direction

<b>Resource</b>	<b>FP Direction</b>	<b>Achievement of Forest Plan Direction</b>
<i>Air</i>	D-AQ-1. Air on the Forest is of high quality so that: 1) ecosystems are not impaired by pollutants originating in the air, 2) the health of visitors, residents, and employees are not impaired, 3) poor visibility does not impair scenic quality, and 4) other air quality related values are not adversely affected.	Air pollution from sources outside the Forest are not degrading forest ecosystems, human health or enjoyment of forest resources except for the following areas: visibility (from power plants and vehicles) and mercury deposition.
	D-AQ-3. Air emissions from National Forest management actions do not degrade natural resources or uses of the Forest.	The Forest's experience along with adherence to the State's smoke management plan is preventing adverse impacts to the public.
<i>Fire/Fuels</i>	FEIS Projected Decade 1 Conditions. (1) Hazardous Fuels-66,100 acres and (2) Fire: Ecological Objectives: 6,200 acres.	Since 2004 approximately 72,000 acres of hazardous fuels have been treated with over ½ accomplished through prescribed burning of 1999 blowdown fuels within the BWCAW. Accomplishments have achieved the Decade 1 Forest Plan projected fuel reduction acres.
<i>Heritage</i>	Identify, evaluate, protect, monitor, and preserve heritage resources.	The integrity of some heritage sites is deteriorating over time, especially on campsites with extremely heavy visitor use (in and out of BWCAW).
<i>Lands</i>	Through various land adjustment procedures (e.g., purchase, donation, and exchange) and a landownership adjustment map, secure a land ownership pattern that supports and enhances total Forest Plan resource management objectives.	We are meeting Forest Plan objectives for land adjustments. Two properties totaling 54.81 acres valued at \$1,639,267 were purchased in 2009.
<i>Minerals &amp; Geology</i>	S-MN-13 Where a federal permit is required, mitigation measures and management requirements will be established to minimize and mitigate adverse environmental effects.	Mitigations and best management practice requirements were followed during exploration, development, and production activities.
<i>Non Native Invasive Species</i>	O-WL-37: Reduce the spread of terrestrial or aquatic non-native invasive species that pose a risk to native ecosystems.	The total terrestrial infested area on the SNF has been slowly increasing. This is primarily due to enhanced inventories and new infestations establishing and expanding along travel corridors associated with access road construction. Other factors contributing to NNIS expansion include movement of gravel from infested pits, road maintenance activities, timber harvest, mineral exploration, and fire management. Terrestrial NNIS are not approaching a threshold level on the Forest at this time. NNIS continue to spread and affect susceptible habitats. However, NNIS still only represent a small fraction of the vegetative cover across the entire SNF landscape.

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<b>Non Native Invasive Species Cont'd</b>	O-WL-38: Use Integrated Pest Management to: (a) Eradicate any populations of new invaders. (b) Contain or eradicate populations of recent invaders. (c) Limit the spread of widespread, established invaders within the planning area.	The amount of acres treated has been increasing annually since 2004. Excluding oxeye daisy and hawkweeds, approximately 61 percent of inventoried infestations, or about twice the amount of previous years, was treated in 2009. This increased treatment was attributed to ARRA funds received in 2009. Treatment effectiveness was shown to be higher in 2009 compared to previous years.
<b>Partnerships</b>	D-CM-1, which states that “the Forest works cooperatively with other landowners and land managers to protect, enhance, and restore physical and biological resources as well as social and economic values. Cooperative management includes tribal, State, county, local governments as well as other federal agencies.”	There were 72 agreements active in FY09 which had funding tied to the agreement <sup>1</sup> . In addition there were 34 modifications of Agreements in FY09. <sup>2</sup> The total dollar value of the agreements with funding attached to them is \$5,076,000. This figure includes the Forest Service dollar match of \$2,391,000; Forest Service In-kind match of \$1,400; Cooperators dollar match of \$2,590,000; and Cooperators In-kind match of \$93,000. <sup>3</sup> Volunteers to the SNF provided 53,190 hours of service at an appraised value of \$ 1,062,000 <sup>4</sup> .
<b>Recreation Motor Vehicles</b>	D-RMV-1. The Forest provides RMV road and trail riding opportunities with experiences in a variety of forest environments, while protecting natural resources. D-RMV-2. Allowed, restricted, and prohibited RMV uses are clearly defined to the public. Where practical, RMV policies are consistent with adjacent public land management agencies.	Project decisions approved from 2005 through 2009 have closed or propose to close approximately 159 miles of roads to RMV travel, reducing mileage open to RMVs from approximately 1,550 miles (2004) to about 1,405 miles (2009) During 2009, none of the mapped closed roads visited had unauthorized motorized use. Resource damage in terms of rutting and damaged vegetation was observed on approximately 37 percent of both open and closed roads. This compares to a high of 57 percent in 2005 and 50 percent in 2008.
<b>Soils</b>	G-WS-8 Follow the limitations on management activities as specified in Table G WS-8. G-WS-9 During resource management activities, minimize adverse impacts to soil productivity by striving to have no more than 15 percent of a treatment area ... O-WS-1 Improve and protect watershed conditions to provide the water quality, water quantity, and soil productivity necessary to support ecological functions and intended beneficial water uses.	Forest Plan guidelines are providing adequate protection to the soil resource. Deviations from soil protection guidelines to date have minor, temporary impacts to site productivity but monitoring should be continued Watershed improvement projects are meeting Forest Plan objectives

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<b>Timber</b>	Forest Plan (TABLE APP-D3 p. D-3)	On average, 60 percent of harvest acres have been clearcut annually since 2004, which is similar to the projection for the first decade of the Forest Plan.
	O-VG-20. Create large patch temporary openings up to 1000 acres...O-VG-21 Increase average size of temporary forest openings.	The increase in number and acreage of large patches since 2004 is consistent with the desired condition for the first decade of the Forest Plan.
	Forest Plan Projected Decade 1 ASQ (maximum volume) of 1.0 billion board feet. Figure APP-D1. Forest Plan estimated Decade 1 acres of timber harvest of 131,900 acres. Table APP-D2.	32 MMBF were sold within twelve sales and 50MMBF were harvested. 25 percent of the Forest Plan first decade volume projection has actually been achieved but when combined with volume currently planned or under contract, 40 percent of the volume projection has been achieved
	Multiple S&G's. S-TS-3 to address road closures, G-WS-5,6, and 7 addressing riparian and wetlands, G-WS-8 and 9 to address soils, G-TM-5 for reserve and legacy patches, G-SC-4 and 5 to address visuals, S-RM-4 and 5 to address motorized use, G-WL-23 to address NNIS, O-HR-1 for heritage and G-WL-11 for wildlife.	Timber operational standards and guidelines are sufficient and layout and sale administrators are successfully implementing contract clauses.
<b>Transportation</b>	O-TS-2: Few new OML 3, 4 and 5 roads will be constructed and O-TS-3: New roads built to access land for resource management will be primarily OML 1 and not intended for public use.	Since 2004, system road mileage has increased while total road mileage has decreased.
	O-TS-3: Temporary roads will be decommissioned after their use is completed. All newly constructed OML 1 roads will be effectively closed to motorized road and recreation vehicles following their use.	Contractual practices and techniques effectively prevented motorized recreation vehicle travel on 80 percent of decommissioned roads.
	O-TS-8: The Forest will decommission approximately 80 miles of road.	133 miles of road will be decommissioned when decisions up to 2009 are implemented
<b>Tribal Rights &amp; Interests</b>	O-TR-4: Consult, as provided for by law, with Tribes in order to address tribal issues of interest and national Forest management activities and site-specific proposals.	During FY 2009, as projects were planned, staff from the Superior National Forest (SNF) increased efforts to inform Tribal Chairs, staff, 1854 Treaty Authority, and GLIFWC at the initial planning of the projects so Tribal governments could work with the SNF to develop proposals and actions.

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<p><b>Vegetation</b></p>	<p>O-VG-1 “Move vegetation conditions from Year 2003 conditions toward the long-term desired composition, structure, age, spatial patterns, and within-stand diversity.</p>	<p>There has been positive movement towards Forest Plan LE Decade 1 objectives. However, the Jack Pine/Black Spruce LE appears to have waning opportunities for meeting its overall Decade 1 Objectives.</p> <p>The SNF is doing well in meeting the Forest Plan direction for mature and older forest patches, nonetheless, vegetation management project analyses need to continue to take advantage of opportunities to promote mature and older forests patches.</p>
	<p>Management Area – Harvest Treatments. D-LR-3 –( General Forest-Longer Rotation-GFLR). A full range of silvicultural practices is employed. However, compared to General Forest MA (GF), There is more uneven aged and partial cut harvesting resulting in more uneven aged and multi-aged forest (within GFLR) . This area will have less extensive even-aged harvests than the GF MA. When clearcutting is used in this MA(GFLR), it is often done at longer rotation ages</p>	<p>Although the number of acres is lower than the numbers projected in the Forest Plan, they do represent consistency in the relationship of types of harvest projected to be the most prevalent in the Management Areas, especially in General Forest and General Forest - Longer Rotation.</p>
	<p>O-WL-32 Increase amount of white pine to amounts more representative of native plant communities</p>	<p>The increase of the white pine forest type across the SNF indicates that vegetation management across the SNF has consistently addressed the need for increasing white pine, addressing FP objectives relating to white pine as a Management Indicator species.</p>
<p><b>Watershed/ Riparian</b></p>	<p>O-WS-2. Improving road and trail crossings of streams and wetlands to assure soil stability, unimpeded flow, sediment transport, and/or passage of fish.</p> <p>O-WS-6 Reconstruct an average of one-half to three miles of stream channel per year, based on principles of stream geomorphology, to enable the flow of water and sediment to occur without resulting in a change in stream pattern, dimension, and profile.</p> <p>D-WS-5: Water quality, altered stream flow, and channel stability do not limit aquatic biota or associated recreational uses. Water in lakes, streams, and wetlands meets or exceeds water quality requirements.</p>	<p>106 culverts were assessed in 2009 of which approximately 20% of the culverts may be a physical barrier to passage because they are in poor condition or may be placed too high.</p> <p>Since the adoption of the Forest Plan in 2004, twenty nine culverts have been successfully modified or replaced in accordance with established design criteria to accommodate aquatic organism passage.</p> <p>The lack of any discernable physical change at reference sites implies that recent management activity has had no effect on the physical integrity of streams.</p> <p>Overall, water quality is very good within the lakes and streams of the SNF. There are some isolated water resources that are impaired and mercury continues to be an issue for nearly all lakes within the region and nation. There does not appear to be negative trend in water quality associated with SNF management practices.</p>

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<i>Watershed/ Riparian Cont'd</i>	S-WS-4 Water quality Best Management Practices, which are represented by some of the MN Forest Resources Council (MFRC) Voluntary Site Level Forest Management Guidelines, will be implemented as standards on NFS land.	Monitoring of the implementation of the Forest Plan standards and guidelines appears to adequately protect the water resources of the forest. These standards and guidelines should continue to be implemented as part of forest management.
<i>Wilderness</i>	The BWCAW will be managed in a manner that perpetuates and protects its unique natural ecosystems, provides an enduring wilderness resource for future generations, and provides opportunities for a primitive and unconfined recreation experience. The Forest Plan objective for wilderness is to improve the capability of wilderness to sustain a desired range of benefits and values.	<p>The 10YWSC “scores” have improved steadily since 2005 for elements. Non-native, Invasive Plants (NNIS) inventories, high risk mapping, field treatments and evaluations, and public education and partnerships were implemented within the highest priority areas during 2009.</p> <p>While mechanized activities contribute to the decibel level, recorded decibel range duration reflects primarily a natural source of sounds, with the wind moving water and vegetation contributing to the sustained maximum.</p> <p>No NNIS infestations resulting from ATV travel near the wilderness were observed. This is similar to previous year findings that ATV travel or any other recent motorized management activities is not contributing to NNIS establishment or expansion into the BWCAW.</p> <p>During 2009 nineteen roads/trails near the BWCAW boundary were visited to assess motoring intrusions into the BWCAW. No user created trails or evidence of motorized intrusions were found which is less documented during previous years.</p>
<i>Wildlife, Sensitive Species, Terrestrial.</i>	<p>G-WL-11 states, “Avoid or minimize negative impacts to known occurrences of sensitive species.” G-WL-12 states, “Minimize negative impacts to known sensitive species from management activities that may disturb pairs in their breeding habitat during critical breeding season.</p> <p>O-WL-2. Habitats: Move terrestrial habitats in the direction of desired conditions and objectives for all native and desired non-native species. O-WL-18. Maintain, protect, or improve habitat for all sensitive species.</p>	<p>Management activities on all projects from 2004-2007 complied with 2004 Forest Plan direction for sensitive species.</p> <p>Lowland conifer (MIH 9a and 9b) acreage is increasing in age and MIH 9a is not trending in the Forest Plan preferred direction to meet Decade 2 objectives. The MIH’s that are below RNV (MIH 1b, 5b, 6b, and 9a) are most likely to disadvantage RFSS but many of the species use additional habitat types.</p>

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<p><b>Wildlife, Sensitive Species, Plants.</b></p>	<p>O-WL-18: Maintain, protect, or improve habitat for all sensitive species.</p>	<p>Forest management is contributing to the conservation of RFSS plants.</p> <p>The expected conditions being analyzed in the Forest Plan Biological Evaluation (BE) are consistent with the current conditions, while viability conclusions made in the Forest Plan BE are still valid.</p>
	<p>O-WL-30: Enhance or restore high quality habitat on a minimum of 20 (average 2 sites per year) known sites of sensitive plants.</p>	<p>Habitat improvement projects completed in 2008 and monitored in 2009 appear to have been successful.</p> <p>To date about 30% (7 projects) of the projected decade 1 Forest Plan goal of 20 habitat improvement projects (O-WL-30) have been completed. Increased effort at habitat improvement projects would be needed in the next 5 years of the plan to accomplish this.</p>
<p><b>Wildlife, Terrestrial, Management Indicator Species</b></p>	<p>O-WL-16 -Promote the conservation and recovery of the bald eagle. Population goal minimum: 85 occupied breeding territories,</p>	<p>SNF Plan bald eagle population goals are being met.</p> <p>Habitat projections confirm that management activities are meeting Forest Plan goals and providing ecological conditions to sustain the viability of the species.</p>
	<p>O-WL-31-Provide goshawk habitat to provide for population goal minimum: 20-30 breeding pairs and O-WL-1-Provide ecological conditions to sustain viable populations of desired species and to achieve objectives for MIS.</p>	<p>Numbers were close to the Forest Plan goal of 20-30 breeding pairs and number of known nests continues to grow.</p> <p>The latest goshawk habitat projections for Decade 1 are exceeding what the Forest Plan predicted.</p> <p>Implementation of timber sale preparation and layout standards and guidelines to protect stick nests have been successful.</p>
<p><b>Wildlife, Threatened and Endangered Species</b></p>	<p>Habitat. G-WL-4; Maintain or promote well distributed denning habitat. S-WL-2; Allow no net increase in groomed or designated over snow routes. G-WL-8; Maintain road &amp; snow-compacting trail densities below 2 miles per square mile.</p>	<p>There is no cause/effect mortality relationship that is attributable to road management on the SNF</p> <p>Typical road closure methods used on the SNF to restrict large and small motorized vehicle use are effective.</p>
	<p>O-WL – 17; Promote the conservation and recovery of the gray wolf. Population goal minimum: contribution to State-wide goal of 1250-1400.</p>	<p>SNF is maintaining lynx and gray wolf habitat within the Forest Plan parameters.</p> <p>The lack of formal consultations with the USFWS for both species is an indicator that all SNF activities are evaluated, new information is incorporated, and risk factors are minimized and managed to further the conservation and recovery of both species.</p> <p>Mortality rates for both species are low, within incidental take allowances, and randomly occur on SNF.</p>

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<b><i>Wildlife, Threatened and Endangered Species Cont'd</i></b>	O-WL-9; In LAUs on NFS land, manage vegetation to retain, improve, or develop habitat characteristics suitable for snowshoe hare and other important alternative prey	Natural disturbances are not adversely affecting lynx habitat.
	O-WL-10; In LAUs on NFS land, manage vegetation to provide foraging habitat in proximity to denning habitat in amounts sufficient to provide for lynx.  O-WL-11; Maintain, and where necessary and feasible, restore sufficient habitat connectivity	Habitat is being managed to maintain connectivity between the general forest, the BWCAW and Canada allowing individual animals to move freely across the landscape.  A key linkage area as defined by the Lynx Conservation Assessment and Strategy (LCAS) and SNF Forest Plan is being freely used by lynx, and is being maintained by SNF management practices.