

Executive Summary

The information that follows consists of the key points taken from each of the resource reports. More detail that supports these statements can be found within each of the reports.

1. Tribal Rights and Interests

- The Forest continues its efforts to uphold Federal Trust responsibilities. The Forest funds a Tribal Liaison position, provides employment opportunities, and interacts with tribal program staff in an effort to work in a government to government manner, facilitate rights to hunt, fish and gather, and sustain American Indian's way of life.

2. Timber

A. Timber Outputs

- Volume offered and sold has steadily increased since FY 2005. The Forest's unit costs today are among the lowest in the Region, a shift from among the highest prior to FY 2005. Additionally, the Forest has sold the highest percent of their annual maximum allowable sale quality of any forest in R9.
- Uncut volume has increased annually from 43 MMBF to 103 MMBF since FY 2005.
- Revenues have been and continue to be below Forest Plan expectations.
- Ratio of sawtimber to pulpwood harvested since 2005 has been lower than proposed in the Forest Plan perhaps due to increased thinning acres in red pine.
- Percentages harvested by treatment method are not in line with Forest Plan projections. Thinning is over accomplished, while uneven-aged management, clearcutting, and shelterwood treatments are under accomplished.
- Acres harvested by treatment method are approaching the decadal number for thinning but are well below the proposed numbers for clearcutting, uneven-aged, and shelterwood treatments.
- Biomass utilization has emerged since Forest Plan revision. The Forest has adopted a biomass policy to ensure site protection. Demand is currently limited.
- The Forest defers harvest treatments for a variety of reasons: due to poor access, to allow natural conversion (succession) of aspen stands to another forest type, to achieve mature/older forest objectives, to protect natural origin stands of red pine, to provide 50-70% canopy closure (e.g., for patches, goblin fern, red shouldered hawk, goshawk, riparian areas and wetlands), to address tribal high interest areas and tribal concerns, due to low volumes or sensitive species in lowlands, poor economics, and due to limited budgets.
- Modeling in the Forest Plan did not account for reduced harvests and volumes in Tribal High Interest areas.
- Changes to payments to counties resulted from the 2008 Secure Rural Schools Act. Monies are now available for projects recommended by local resource advisory committees (RACs).

B. Regeneration

- Adequate regeneration five years after harvest was met on 99.5% of the acres harvested in 2005. Despite challenges due to brush competition and deer browse, the Forest has made great gains in its goal of 100% compliance to NFMA.

C. Unit Monitoring - Compliance with Decisions, Standards and Guidelines, and Design Features

- Overall the Forest is doing a good job of identifying the appropriate treatments during planning and effectively implementing the activities on the ground to achieve forest and project objectives while meeting resource standards, guidelines and design features.

3. Vegetation

A. Insects, Diseases and Disturbances

1. Insects and Diseases

- Monitoring of insects and disease levels is conducted on an annual basis. Since 2004, although damage has occurred by larch case bearer, jack pine budworm, and prolonged dry spells, native and naturalized insect pests have run their course.
- Of great concern is the eminent threat of emerald ash borer. The Chippewa is acting proactively through coordinated partnerships and research projects to be able to respond. Building resilience in the ash resource and slowing the spread of emerald ash borer once it arrives are the two primary objectives concerning emerald ash borer.
- The other major threat facing the Forest in the near future is gypsy moth. It will be important for the Forest to coordinate and communicate with all its partners as movement of gypsy moth continues to be monitored.

2. Management and Disturbances

- Although individual tree mortality caused by a variety insects and diseases is occurring, epidemics have not occurred. Forest management activities such as harvesting, fuels reduction, and prescribed burning have contributed to managing occurrences of fire, insect and disease outbreaks. The establishment of an emerald ash borer population in northern Minnesota is a threat in the future

B. Vegetation Composition and Age Class Objectives

- To achieve composition objectives requires a significant amount of conversions, a concerted effort and investment by the forest.
- Forest wide the 0-9 age class has decreased significantly across all Landscape Ecosystems since 2004. Conversely, the older age classes (50 + years) have increased more than projected.

C. Conversions

- The conversion process is slow. Currently, there aren't enough conversions through active management completed to conduct site visits, assess costs, successes, failures, and lessons learned. Consequently, Decade 1 objectives are not achievable.
- Planned conversions are not occurring at a level to achieve Decade 2 objectives.
- Most of the changes in forest types since Forest Plan Revision are the result of better stand inventory data and stand re-delineation.
- Protocols are needed to identify stands across the landscape best suited for conversion, and to track stands planned for conversion until accomplished.

D. Temporary Openings

- The Forest is making progress in reducing the number of small temporary openings on the landscape. Opportunities to create larger temporary openings, especially those

over 300 acres in size, need to be explored if Forest Plan expectations for larger openings are to be met.

4. Wildlife

A-B. RFSS, MIS and T& E

- From 2005-2010, all management activities were completed with 2004 Forest Plan direction for RFSS, MIS, and T&E species. Projects that were analyzed either had no impact or were not likely to cause a trend to federal listing or loss of viability on the Chippewa National Forest. In addition, all Forest Plan Standard and Guidelines were successfully implemented on the ground with the exception of the 70% canopy closure standard within the post fledging areas for the goshawk and red shouldered hawk. The implementation of this standard was inconsistent across the Forest.
- From 2004 -2010 the Forest contributed toward the conservation and recovery of both the Canada lynx and gray wolf through habitat and access management practices, collaboration with other federal and state agencies, as well as researchers, tribal bands and non-governmental partners.
- The Forest has implemented mitigations for rare plant populations on all major projects on the Forest. Coarse-filter habitat protections provide habitat for most sensitive plants. Goblin fern remains a challenge as impacts from earthworms continue to expand through goblin fern habitat.
- The Monitoring and Inventory Survey Team continue to make improvements to the screening process in surveying various RFSS on the Forest. This improved screening process has made the surveys on the Forest much more effective in detecting locations of RFSS. The consistent increase of new locations added each year also suggests that our understanding of where and when to search for these species is improving.
- Eighteen new species were added to the Chippewa RFSS species list as of December 2011.
- No work has been done to achieve the objective of restoring habitat for sensitive species.

C. Breeding Birds

- Overall the breeding bird community of the Chippewa NF appears to be in excellent condition with the vast majority of species trends increasing or stable. Some concerns exist for declining population trends for the Connecticut Warbler and Golden-winged Warbler. If these trends continue, then it may be prudent to examine habitat and landscape use and changes within the Chippewa NF in more detail.

D. Management Indicator Habitats (MIH)

- The Forest is meeting Forest Plan direction:
 - To reduce the amount of forest edge created,
 - To increase the amount of interior forest habitat, and
 - For mature and older (50 + years) upland forest
 - To maintain red and white pine forest (minimum of 40,000 acres)
 - To maintain or increase the acres and number of patches greater than 300 acres
 - To maintain a minimum of 19 patches of 1,000 acres or greater,

To maintain at least 85,000 acres in patches 300 acres or greater.

- Conditions for wildlife species that require large, mature forest patches or interior forest, or those that are sensitive to edge, are gradually improving.
- In the upland deciduous forest, MIH objectives to decrease amounts of young are consistent across LEs and are being met. For mature and older forest, some forests are increasing when the objective is to decrease.
- In the upland coniferous forest, Forest Plan objectives to increase young red, white, and jack pine conifer are not being met. This would be achieved through conversions of over abundant forest types. For mature and older, the standard to maintain at least 40,000 acres in mature white/red pine is currently exceeded and is trending in the right direction to meet the predicted amount for end of decade 2 (2024). Care should be taken not to reverse these trends.
- Mature and older jack pine and spruce-fir forests are declining rather than maintaining or increasing. The Forest has not met the standard to maintain at least 5,300 acres of mature or older jack pine forest in the first 10 years of implementation.
- In lowland conifer forests, objectives to increase young conifer are not being met. In the mature and older forest, most of the objectives are to decrease the mature and increase the oldest (120+ years) habitats. These objectives are being met in most LEs.

5. Non-Native Invasive Species (NNIS)

- An environmental assessment for *Non-native Invasive Plant Management* is complete. A decision was made in October 2011 and implementation is planned for the spring 2012.
- Very little survey or monitoring data has been collected thus far. A design and protocol need to be developed and applied.
- Effectiveness of NNIS management needs to be determined in the future.

6. Recreation

A. Recreation Facilities and Opportunities

- The CNF has been meeting basic health and safety and accessibility standards, managing within budget, and responding with appropriate management options to reduce maintenance costs. The range and scope of opportunities has decreased. Given a continued reduction in recreation budgets, additional facility decommissioning will occur.
- Although the Forest is experiencing reduced budgets; it is meeting Forest Plan direction for recreation facilities and operations.

B. Scenic Resources

- The Forest Plan indicates goals, objectives, standards and guidelines for scenery management across the Forest. Employees implementing forest projects do not know the specifics of translating the projects goals into the SIOs. Training is recommended.
- No monitoring has been conducted.

C. Recreation Opportunity Spectrum Objectives (ROS)

- The Recreation Opportunity Spectrum is a valuable tool for forest management. Primarily due to improved road inventories and road decommissioning, the ROS

inventory has changed since the Forest Plan revision. The ROS mapping criteria is available for project planning and analysis.

D. Non-motorized and Motorized Recreation Opportunities

- The existence of roads within the forest is the primary criteria to assign a recreational opportunity spectrum area as a motorized or non-motorized area. Continuing to not build permanent roads and to decommission permanent roads may influence the Forest ROS inventory over the next five years.
- The demand and the ability of the Forest Service to meet that demand in the context of the Forest Plan and budgets will guide the quantity of motorized and non-motorized trails.
- Additional analysis should be done to map traditional small areas (Bass Lake/Rush Island, Simpson Creek Trail/Area, Fiske Lake) across the CNF that have been informally managed for non-motorized use.

E. OHV

- OHV access to the Forest continues to be primarily on roads. The only designated ATV trail is the 21 miles of the Soo Line Trail.
- Funding is necessary to successfully manage OHV use. ATV trail construction and maintenance funding is a need to implement the designated trail on the Blackduck Ranger District and/or other trails and connections. Funding is also necessary to successfully obliterate unauthorized user created OHV trails. Due to funding limitations the Forest is not responding to requests for new trails.
- Law enforcement must continue in regards to illegal cross country use and the misuse of designated roads.
- Public information remains crucial to successfully managing OHV use within the Forest.

F. Over the Snow Designated Trail Routes

- There has not been an increase in snowmobile routes or ski trails across the Forest. The Forest Plan allows for a maximum of 100 miles of additional snowmobile trail miles (O-ORV-2), but S-WL-2 allows no net increase in groomed or designated over-the-snow trail routes ...unless the designation improves lynx habitat through a net reduction of compacted snow areas. The discrepancy in terms of the intent of the Forest Plan needs to be reconciled.

7. Transportation System

- Forest Plan Standards and Guidelines are being met.
- Objective to decommission 200 miles of OML 1 road is on schedule for completion by the end of 1st decade.

8. Soils

- Soils monitoring needs to include forest management activities other than just vegetation treatments to adequately assess how well objectives and desired conditions of the Forest Plan are being met.
- In the future, more quantitative soils monitoring will be necessary to assess the effects of forest management activities with greater confidence.

- Results from both Forest and MDNR monitoring show that forest management activities were generally in high compliance with BMPs. Failures were found primarily with rehabilitation of log landings and temporary roads and coarse woody retention; however visual signs of soil disturbance were not evident.
- The lack of observable soil impairment in monitored vegetation treatment areas may be largely due to effective implementation of Forest Plan Standards and Guidelines and BMPs. Where issues were found they were small in scale and appeared to have little impact on soil productivity.
- It is highly likely that earthworms are present across the Forest. Current and past observed impacts illustrate the need for a more detailed inventory of the infestation and development of tools to reduce further risk of spread.
- There's debate within the soil science community whether complete slash retention on dry, poor-nutrient, sandy soils is necessary (G-WS-10 specifies "Retaining or returning fine slash (<3inch diameter) well distributed over the site.." FP, p. 2-15). Until more definitive research has been published on the matter, the Forest should continue to follow Forest Plan Standards, Guidelines, and BMPs for slash retention and biomass removal.
- Soils management on the Forest will likely change to be both proactive and responsive to future climate change.

9. Costs

- With declining budgets on the horizon, grants and agreements, and stewardship contracts make an important contribution to provide work opportunities and to achieve resource accomplishments.
- Due to anticipated budget shortfalls, the level of services or outputs may change and there may be a change in how the Forest Service does business.

10. Outputs

- The Forest is making good progress with regard to stream channel reconstruction, wildlife habitat restoration, and road decommissioning.
- Areas that need attention are sensitive plant habitat restoration, new water access sites, and new snowmobile trail designation.

11. Social and Economic Stability

A. Commodity Resources and Non-commodity opportunities

- The Forest provides people opportunities to gain these benefits through forest access on roads; a variety of forest settings; recreational facilities, forest products, and tribal employment.

B. Areas and Species of Interest

- The CNF has continued to provide a range of forest settings that have existing unique areas of interest to people. Collaborative planning on connected landscapes with common goals should continue to occur.

12. Heritage Resources

- Efforts to avoid and/or protect sites have been effective.

13. Land Adjustment

- The Forest is meeting Forest Plan objectives for land acquisition.
- During the past five years, land adjustment resulted in a net gain of approximately 76.45 acres to the Forest.
- Two properties have been purchased in the last five years. Several other land parcels have been identified for acquisition in the next five years if funds become available.
- The Forest has completed one land exchange since 2004; two exchanges currently are in process.
- The Forest has identified four sites to sell. Four sales have been negotiated to resolve encroachment type title claims.

14. Minerals

- Pit plans need to be updated and developed for several pits, exploration in the pits needs to be done, reclamation in eleven (9) pits needs to be completed.
- Companies are implementing in accordance with their operating plans and are compliant with the conditions in their permits.

15. Special Uses

- Overall the Special Use Permit program appears to be meeting the guidelines of the Forest Plan. The majority of the special use permittees are in compliance.
- Several expired utility and road permits need to be renewed or closed.

16. Public Health and Hazardous Materials

A. Forest Facilities and Recreation Sites

- Forest administrative facilities have been monitored and maintained to standard.
- Forest employees should be educated on proper burning. Painted and treated lumber should not be disposed of in burn piles.
- Illegal dumping is a significant and expensive problem on the Forest. Continued cleaning, public education, and law enforcement efforts are needed to reduce dumping.

B. Drinking Water and Swimming Beaches

- Forest provided drinking water sources continue to meet standards.
- Drinking water analysis performed by a contractor has reduced expense to the forest.
- Forest staff need to know how to access well information from the Minnesota Dept. of Health.
- In January of 2009 the decision was made to no longer sample and analyze Chippewa NF swimming areas.

C. Hazardous Material Storage

- Forest Plan Standards and Guidelines are being met.
- Hazardous material storage conditions on the forest are consistent with laws and regulations.
- A new HAZMAT storage building is needed at the Deer River Ranger District office.

17. Climate change

- The CNF Forest Plan provides sufficient direction and flexibility in adaption and mitigation strategies in regard to climate change.
- The Forest should be strongly engaged in the Minnesota Climate Change Response Framework (MN CCRF) effort.

18. Air Quality and Smoke Management

- Based on current understanding, air pollution is not degrading forest ecosystems, human health or enjoyment of forest resources except for the following areas: visibility and mercury deposition. None of the important sources of visibility impairment or mercury deposition are related to National Forest management activities.
- The Forest is meeting the desired conditions, objectives, standards and guidelines.

19. Watershed Health and Riparian Areas

- Forest Plan direction strives to maintain and improve watershed conditions by providing natural flow and connectivity to allow stable populations of aquatic biota.
- Forest watershed program has implemented forest plan direction by focusing on the removal of barriers to aquatic organism passage, impoundment dam removal and road decommissioning.
- Climate change will likely result in dryer growing conditions and more extreme flow events.
- Work being done by the Forest watershed program will make the Forest more resilient to the impacts of climate change.
- No changes in Forest Plan are recommended. Continued implementation of the Plan will result in improved water resources.

20. Fire & Fuels

- The Forest is meeting hazardous fuel reduction objectives for wet meadow and upland burning. Wet meadow treatments have been successful in reducing the number and size of person caused fires within the Forest. The upland burning program is being successful in reducing the fuel loading that contributes to increased fir behavior in wildland fire situations. In addition, these burns accomplish objectives of wildlife habitat improvement and restoring fire to a fire dependant pine ecosystem.
- The Forest Plan does not allow for the management of wildland fire for resource benefit, and thus all wildland fire is deemed to be unwanted wildland fire and actively suppressed to protect life and natural resources.
- Based on a review of fire statistics, person caused fires are the main cause of wildland fires on the forest. These fires result in the most acres burned.

