Wisconsin State Forests
Monitoring the Implementation of State Forest Master Plans – 2013

Property: BRULE RIVER STATE FOREST

Master Plan Year: 2002

Land Management
Property-Wide Management Objectives

MASTER PLAN OBJECTIVES	The specific land management prescriptions are designed to achieve the natural community objectives outlined in each management area. Overall these prescriptions represent a property-wide average annual work objective. These average annual work objectives include: ▪ 120 acres of prescribed burning to maintain grassland and barren habitats ▪ 300 acres of thinning to manage pine plantations to more natural densities ▪ 15 acres of final regeneration harvest in red pine for regeneration of this forest type ▪ 75 acres of jack pine harvest for regeneration for this forestry type ▪ 150 acres of aspen/birch harvest for regeneration of these species or as part of a shift to conifers in specific areas ▪ 25 acres of scrub oak harvest to maintain this community type ▪ 15 acres of fir-spruce harvest for regeneration or to facilitate planting of additional species ▪ 20 acres of northern hardwood/red oak harvest for regeneration of specific species in this community type ▪ 60 acres of ground disturbance for regeneration of species such as white birch or jack pine ▪ 50 acres of planting to maintain or increase tree species such as adding white pine and white spruce to some areas or maintaining red and jack pine to other areas
Accomplishments 2013	Timber Sales Established 16 timber sales were established on 617 acres and 16 sales sold for a total of 617 acres sold during 2013. These 16 sales produced an estimated volume of 9,500 cords and 50 MBF and sold for $433,942 in contracted value. Other Land Management Operations Prescribed fire was used on 1 site totaling 8 acres to maintain grassland habitat. In 2013, 279 acres of jack pine and 15 acres of white spruce and tamarack were planted to meet reforestation objectives.

Land Management Areas
Area 1, Lake Superior Clay Plain, Native Community Management Area

MASTER PLAN OBJECTIVES	**Area 1 - Long-term Management Objectives - 100 years:** ▪ Develop and maintain an ecological landscape dominated by clay plain boreal forest communities interspersed with areas of wetland and stream habitats. The upland landscape would be large enough for a diversity of cover types and ages to exist at levels necessary to support the wildlife and plant species associated with these different habitats and successional stages. ▪ Manage the upland forest toward a dominance of white spruce, white pine, and white birch, along with common associates including white cedar, balsam fir, aspen, red pine and upland tamarack. This forest would have a representation of a full spectrum of age classes within these forest types. ▪ Establishing large forest patches (100s to 1,000s acres) with relatively high canopy closure and good representation of clay plain forest species. ▪ Develop a forest with at least 10% of the stands supporting a structure containing large trees of longer lived species such as white pine, white spruce and white cedar and much of the structural diversity typical of natural old growth forests, including large living trees, dead trees, snags, tip-up mounds and a substantial amount of coarse woody debris. The understory would likely be characterized by a dense growth of shrubs such as alder and beaked hazel. This forest structure would benefit wildlife such as woodpeckers, cavity nesters, small mammals, amphibians and predators such as fisher and bobcat. ▪ Maintain white birch as a dominant component along with associated early successional species. ▪ Continue to protect water quality and aquatic habitat of streams by managing the riparian forest primarily to reduce run off from clay soils and prevent unnatural levels of bank erosion. ▪ Manage several conifer dominated areas passively and monitor as reference areas with considerations. Management actions would be considered in cases of exotic plant control and public safety needs. ▪ Maintain, create and enhance constructed wetlands to provide habitat for a wide variety of wetland birds such as sora rail, American bittern, spotted sandpiper, pied-billed grebe; song birds such as sedge wrens, yellow-headed black birds, eastern kingbird; and waterfowl such as mallard, blue-winged teal, hooded merganser, and Canada goose. ▪ Continue to provide the habitat and setting to support the unique hunting opportunities offered by the Brule River State Forest. ▪ Manage the Brule River Boreal Forest State Natural Area and the Pearsen Creek portion of the Bear Beach State Natural Area as passive management reference sites to provide base information for adaptive management approaches to clay plain boreal forest restoration (Refer to the State Natural Area map in the Maps Section at the back of this Document) ▪ Manage the Bear Beach State Natural Area to protect the banks and beach of the Lake Superior shoreline (Refer to the State Natural Area map in the Maps Section at the back of this Document) ▪ Preserve and enhance the natural aesthetic quality in areas seen from the Brule River; its tributaries, lagoons, the Lake Superior shoreline and designated public use areas. **Area 1 - Short-term Management Objectives – 50 years:** ▪ Conduct forest reconnaissance monitoring of vegetation every 10 years to measure change in actively

	and passively managed areas ▪ Use monitoring information on changes in composition and structure from existing conifer dominated reference areas for future management decisions. ▪ Reduce aspen cover type from 4,100 acres to 2,500 acres to allow an increase in other cover types. Aspen would remain a component of these other cover types. ▪ Increase cover type of fir spruce from 600 acres to 2,000 acres ▪ Increase cover type of white pine from 50 acres to 200 acres and increase the presence of white pine throughout other cover types. ▪ In the next planning cycle evaluate the value of the grasslands and the potential for converting these sites to forested communities. ▪ Establish white pine and white spruce seed source in areas lacking these species. ▪ Increase the white birch cover type from 350 acres to 650 acres. ▪ Regenerate some areas of aspen and fir and slowly convert other areas to the target species. ▪ Experiment with management options to increase white cedar or tamarack in areas currently dominated by tag alder. ▪ Maintain areas of existing grassland (800 acres total) south of Brule River Road within this management area in an early successional grass and shrub cycle of management in order to provide habitat for a variety of game and non-game wildlife species, including upland sandpiper, sharp tailed grouse, eastern meadowlark, clay colored sparrows, woodcock and bobolink. The grasslands would also provide summer habitat for leopard frogs, nesting habitat for waterfowl, grazing and fawning areas for deer, and contribute to year-round habitat for sharp-tailed grouse.
Resource Management Prescriptions	General Management Prescriptions apply as described in the Brule River State Forest Master Plan for this management area starting in Chapter 2, page 58 of the master plan.
Accomplishments 2013	Established a 28 acre aspen/birch regeneration harvest at Bracketts Corner that encourages conifer to regenerate along with the aspen and birch components. Established a 17 acre oak regeneration harvest to maintain oak on a site near Waino Rock. Planted 15 acres of tamarack and white spruce mixture on a previously harvested red pine area to convert forest cover type to more suitable species and to increase covertype of white spruce on the landscape.

Land Management Areas
Area 2, Sugar Camp Hill/Lenroot Ledges, Native Community Management Area

MASTER PLAN OBJECTIVES	**Long-term Management Objectives – 100 years:** ▪ Develop a primarily closed canopy, managed old-growth, native mixed species forest connected with the Brule River corridor.

	▪ In the Sugar Camp Hill area maintain the well developed canopy with a full mix of northern hardwood species. ▪ In the Lenroot Ledges area, the objective would be to maintain a conifer-dominated forest realizing that much of this area is in private ownership and out of state control. ▪ In the remainder of Area 2 (primarily aspen) develop northern hardwood forest with some areas dominated by conifers (balsam fir, white spruce, white pine). The vegetation would be characterized by a large block of northern hardwood forest containing a mixture of northern red oak, sugar maple, basswood, yellow birch, ash, balsam fir, aspen, and white birch. This would provide potential habitat for a variety of wildlife species including some rare species such as black-throated blue warbler and red-shouldered hawk. ▪ Closer to the river, white pine and white spruce would be encouraged. These stands would be represented by large and relatively old trees (older than their traditional rotation age). This community would have much of the structural diversity of typical natural old growth forests, including dead trees, snags, tip-up mounds and a substantial amount of coarse woody debris. ▪ Forest aesthetic qualities would be preserved and enhanced, particularly in areas seen from the Brule River, its tributaries, and designated public use areas. ▪ Maintain the existing recreational opportunities (Refer to the Recreation map in the Maps Section at the back of this Document) to accommodate visitors while maintaining the rustic character of the property, two goals identified in the Recreational Supply and Demand Assessment and the Property Vision and Goals (Watkins et al 2001). ▪ Maintain the fire tower on Sugar Camp Hill according to the needs of the DNR's fire detection program. **Short-term Management Objectives – 50 years:** ▪ Increase the cover type of northern hardwood forest from 660 to 1,000 acres while encouraging a diverse forest of northern red oak, sugar maple, basswood, yellow birch, balsam fir, aspen and white birch. ▪ Maintain the existing 150 acres of red oak by encouraging regeneration of this species. ▪ Manage for an increase in the fir-spruce cover type from 100 acres to 200 acres and the white pine cover type from 30 to 80 acres particularly along the Brule River and tributaries, on state ownership in Lenroot Ledges area and in CCC Miller Boreal Forest and Pines area. ▪ Decrease the cover type of aspen from 1,200 acres to 600 acres. ▪ Manage for large diameter, native tree species and old-growth structural characteristics.
Resource Management Prescriptions	General Management Prescriptions apply as described in the Brule River State Forest Master Plan for this management area starting in Chapter 2, page 65 of the master plan.
Accomplishments 2013	No sales established during 2013.

Land Management Areas
Area 3, Miller Road/CCC Square, Habitat Management Area

MASTER PLAN OBJECTIVES	**Long-term Management Objectives – 100 years:** ▪ Manage for a forest dominated by the early successional stages of the clay plain boreal forest but with greater species and age class diversity than occurs presently. This will continue to provide for high quality habitat for game and non-game wildlife species. Species that would benefit from maintaining early successional habitats range from game species such as ruffed grouse, woodcock, snowshoe hare, deer, and bear to many non-game birds such as golden winged warbler, yellow-shafted flicker, clay-colored sparrow, and amphibians such as green grass snake and leopard frogs. Predator species that utilize these prey species would be sharpshinned hawks, broad-winged hawks, fisher, bobcat, red fox, coyote, and timber wolves. ▪ Continue to generate forest products through managing for a diverse forest and desired wildlife habitat. ▪ Manage riparian forests along stream corridor slopes to promote conifer cover and to retain large woody debris with the primary goals of soil protection and maintenance of fish habitat. **Short-term Management Objectives – 50 years:** ▪ Manage for regeneration of aspen as the dominant forest cover type with 700 acres but diversify the age classes within the area. ▪ Increase the diversity of conifer and hardwood species as secondary types. ▪ Maintain about 100 acres of existing wildlife openings within forested areas, grassland and constructed wetlands for wildlife habitat.
Resource Management Prescriptions	General Management Prescriptions apply as described in the Brule River State Forest Master Plan for this management area starting in Chapter 2, page 68 of the master plan.
Accomplishments 2013	2 timber tracts totaling 93 acres were established and sold during 2013. Both sales are designed to promote age class diversity in aspen for wildlife habitat while increasing percentages of conifers in future stands. Hunter walking trails and associated wildlife openings were mowed.

Land Management Areas
Area 4, Brule River, Scenic Management Area, Scenic River Corridor

MASTER PLAN OBJECTIVES	**Long and Short-term Management Objectives:** ▪ Maintain the natural scenic quality of the river with a conifer dominated older forest corridor. ▪ Manage public access areas to support use of the river but not detract from the scenic quality.

Resource Management Prescriptions	General Management Prescriptions apply as described in the Brule River State Forest Master Plan for this management area starting in Chapter 2, page 75 of the master plan.

Land Management Areas
Area 4, Brule River, Scenic Management Area, Eastern Border Forest

MASTER PLAN OBJECTIVES	**Long-term Management Objectives (100 years):** ▪ Develop a forest of older trees dominated by conifer species to promote a scenic setting between the river corridor and the public roads. ▪ Manage public access areas to support use of the river but not detract from the scenic quality. **Short-term Management Objectives (50 years):** ▪ Increase the cover type of white pine and fir-spruce by 50%. ▪ Establish white pine, white spruce and white cedar in areas lacking these species. ▪ Explore management opportunities to reduce area of alder in favor of other wet soil species such as white cedar and tamarack.
Resource Management Prescriptions	General Management Prescriptions apply as described in the Brule River State Forest Master Plan for this management area starting in Chapter 2, page 75 of the master plan.
Accomplishments 2013	Public use areas were maintained. . A total of 98 acres in 3 tracts were established and sold in 2013. This included a 32 aspen regeneration harvest, a 39 acre aspen removal/hardwood thinning, and a 27 acre scrub oak and hardwood regeneration harvest.

Land Management Areas
Area 5, Brule River Bog and Spillway, Native Community Management Area

MASTER PLAN OBJECTIVES	**Long-term Management Objectives (100 years):** ▪ Maintain a high quality forest and shrub wetland system for ecological, water quality, and habitat values. The vegetation would be characterized by shrub wetlands and lowland forest associated with the river; composed of a mixture of northern white cedar, tamarack, black spruce, and balsam fir. ▪ Develop and maintain a natural upland forest (red pine, jack pine and aspen) on several ridges located within the area near the headwaters of the East Fork of the Brule. ▪ Protect the water quality of wetlands, springs, spring ponds and streams within the management area.

	▪ Maintain the existing levels of public use access and facilities with a rustic setting. Maintain the overall scenic nature of the river, wetlands and forest. ▪ Prohibit any utility corridors through this management area. **Short-term Management Objectives (50 years):** ▪ Conduct research to determine the impact of the loss of white cedar on other biota and successful methods to regenerate white cedar in forested wetlands. ▪ Develop a monitoring strategy for the aquatic community, forest composition and exotic plants. ▪ If significant evidence of exotic plants is found, implement control activities. ▪ Maintain the existing three landings and trails within the management area. ▪ Improve the rustic look and facilities of the St. Croix day use and boat launch area. ▪ Continue to identify sites where habitat restoration or improvement could benefit the fishery, without impacting the native community qualities and continue to apply the appropriate habitat management techniques at those sites.
Resource Management Prescriptions	General Management Prescriptions apply as described in the Brule River State Forest Master Plan for this management area starting in Chapter 2, page 85 of the master plan.
Accomplishments 2013	Existing facilities were maintained. Planted 78 acres of jack pine on a site that was harvested in in 2002 due to the hail storm. Failed regeneration of previous plantings caused the replanting effort to maintain jack pine on the site. Extensive fisheries habitat work was done in the Beupre Springs Area by volunteers associated with the Brule River Sportsmans Club, with removal of old beaver dams and restoration of streambed to re-connect Springs area to the Brule River, thereby creating brook trout spawning habitat.

Land Management Areas
Area 6, Afterhours Recreation Management

MASTER PLAN OBJECTIVES	**Long-term Management Objectives (100 years):** ▪ Maintain a Type 3 recreation use setting for high quality cross-country skiing opportunities and snowmobiling in the winter and provide hiking and hunting opportunities during the other seasons. ▪ Maintain a mixed conifer/hardwood forest consistent with the ecological capabilities and the scenic recreational setting. **Short-term Management Objectives (50 years):** ▪ Improve trail conditions and facilities to meet the current and projected demands of the cross-country skiers while maintaining the general rustic character of the management area. This would include tree harvest to expand the width of the trail, provide better and consistent grooming and provide additional restroom facilities. ▪ Assure regeneration of desired trees species with the goal of producing a scenic and diverse forest.

Resource Management Prescriptions	General Management Prescriptions apply as described in the Brule River State Forest Master Plan for this management area in Chapter 2, page 89.
Accomplishments 2013	A sale was established to thin 4 acres of northern hardwoods, regenerate 5 acres of overmature aspen, and regenerated 10 acres of black spruce which meets the goal of producing mixed conifer/hardwood forest which is scenic and diverse. This sale did not sell during the 2012 bid opening and will be re-offered in 2013. This sale was sold and harvested during 2013.

Land Management Areas
Area 7, Afterhours Recreation Management/Administrative Area

MASTER PLAN OBJECTIVES	**Long-term Management Objectives (100 years):** ▪ Maintain the structures and facilities in this area that provide functions such as forest HQ offices, customer service to the public, garages, equipment storage and maintenance. **Short-term Management Objectives (50 years):** ▪ Develop additional educational opportunities and customer services in association with the existing building complex.
Resource Management Prescriptions	General Management Prescriptions apply as described in the Brule River State Forest Master Plan for this management area in Chapter 2, page 90. - Forest resources would be managed with the objective of developing a stand of large pines and maintaining regeneration of a pine community through a variety of management activities.
Accomplishments 2013	Ongoing maintenance.

Land Management Areas
Area 8, Troy Pit Pines, Forest Production Area

MASTER PLAN OBJECTIVES	**Long-term Management Objectives (100 years):** ▪ Maintaining a dry pine forest community for the compatible values of ecological characteristics and a steady supply of renewable forest products. This would include maintenance of primarily pine cover types, with scattered patches of mixed hardwoods. ▪ Maintain 22 acre Rush Lake's water quality, diverse beach community, aquatic resources and scenic

	setting. ▪ Maintain the 33 acre Kurt's Deep Depression aquatic community and dry slope vegetation. ▪ Promote a late successional stage forest in the Devils Hole Pines area, dominated by older red pine. Protect the natural stand of red pine and enhance the site by promoting the regeneration of native pine. ▪ Provide recreational opportunities, which are compatible with the physical characteristics and other uses in the area, including hunting and cross-country skiing. **Short-term Management Objectives (50 years):** ▪ Increase cover type of jack pine from 1,500 acres to 2,000 acres ▪ Decrease cover type of red pine from 1,800 acres to 1,700 acres ▪ Decrease cover type of scrub oak from 1,100 acres to 700 acres ▪ Maintain about 1,000 acres of aspen and 180 acres of white birch. ▪ Maintain a component of white pine in various cover types. ▪ Maintain 200-300 acres of barren type areas of open grass and upland shrubs in shifting mosaic within the management area. ▪ Manage the 52 acres forest of the Devils Hole Pines to favor old growth red pines and sustained pine regeneration.
Resource Management Prescriptions	General Management Prescriptions apply as described in the Brule River State Forest Master Plan for this management area in Chapter 2, page 92 of the master plan.
Accomplishments 2013	2 sales that total 75 acres were established and sold during 2013 that were designed to regenerate birch and mixed hardwoods. 201 acres of jack pine were planted in order to maintain/increase jack pine acreage on this landscape.

Land Management Areas
Area 9, Hazel Prairie Pines, Forest Production Area

MASTER PLAN OBJECTIVES	**Long-term Management Objectives (100 years):** ▪ Maintain a dry pine forest community for the compatible values of wildlife habitat, ecological characteristics and a steady supply of renewable forest products. This would include maintenance of primarily pine cover types in different age classes. ▪ Maintain areas of a mixed hardwood forest with areas of oak and aspen for wildlife habitat and a steady supply of renewable forest products. ▪ Manage the terrace area toward an older forest of red and white pine. **Short-term Management Objectives (50 years):** ▪ Increase cover type of jack pine from 400 acres to 500 acres ▪ Increase cover type of white pine from 15 acres to 100 acres ▪ Decrease cover type of aspen from 1,000 acres to 800 acres

	▪ Maintain about 150 acres of oak. ▪ Maintain about 1,600 acres of red pine, 60 acres of northern hardwoods and 130 acres of white birch. ▪ Reestablish a diverse pine forest on the terrace area. ▪ Maintain a shifting mosaic of about 200 acres of grass and upland brush.
Resource Management Prescriptions	General Management Prescriptions apply as described in the Brule River State Forest Master Plan for this management area in Chapter 2, page 97 of the master plan.
Accomplishments 2013	No sales were established within this area in 2013.

Land Management Areas
Area 10, Pine Forest and Barrens, Native Community Management Area

MASTER PLAN OBJECTIVES	**Long-term Management Objectives (100 years):** ▪ Through management of existing state ownership and additional lands create a pine barrens landscape with permanent open areas and a shifting mosaic of the full compliment of barrens plant communities and seral stages at a scale of 1,000s and 10,000s of acres. This diverse ecosystem would be large and dynamic enough to more closely replicate historic disturbance patterns and support sustainable populations of characteristic wildlife such as sharp-tailed grouse. ▪ Restore and maintain a mosaic of native vegetative communities that provide a range of conditions from open barrens to dry pine forest types. ▪ Mimic natural disturbance patterns in rates and size, as best as knowledge and implementation constraints allow. ▪ Maintain jack pine as the dominant tree species with red pine being secondary. ▪ Maintain white pine, oak, aspen, and hardwoods in significantly smaller amounts. ▪ Maintain existing recreation of primarily snowmobile trails, hiking trails, wildlife viewing, berry picking and hunting. ▪ Protect the water quality and quantity of an important groundwater recharge area and tributaries of the Bois Brule River. **Short-term Management Objectives (50 years):** ▪ Gradually thin existing red pine plantations to natural dry forest, pine savanna or barrens conditions. The current 1,500 acres of red pine cover type would be reduced to 1,000 acres ▪ Increase the grass and shrub cover type from 180 acres to the 600 acres goal for barrens. ▪ Increase the 1,300 acres of jack pine to 1,700 acres ▪ Decrease the oak cover from 750 acres to 500 acres ▪ Decrease the aspen cover from 150 acres to 100 acres ▪ Conduct monitoring of vegetation every ten years to measure the effects of management and aid in developing adaptive management approaches.

	▪ Maintain existing levels of roads and trails for recreation. Add a loop overlook trail segment for the snowmobile trail.
Resource Management Prescriptions	General Management Prescriptions apply as described in the Brule River State Forest Master Plan for this management area in Chapter 2, page 101 of the master plan.
Accomplishments 2013	Established a 27 acre red pine thinning and a 97 acre jack pine/scrub oak regeneration harvest. The jack pine site will be maintained through anchor chaining/natural seeding and /or planting if necessary.

Land Management Areas
Area 11, Gordon Annex, Forest Production Area

MASTER PLAN OBJECTIVES	**Long and Short-term Management Objectives:** ▪ Provide a steady supply of renewable forest products with emphasis on growing red pine. ▪ Maintain 400 acres of red pine, 250 acres of jack pine and 80 acres of aspen. ▪ Provide for a mix of tree species in aesthetic areas along the river and public roads. ▪ Maintain the long term lease of 45 acres with Department of Corrections for use as a minimum security prison. ▪ Maintain the bog in a natural state to continue to provide habitat for a rich native flora of highly specialized species.
Resource Management Prescriptions	General Management Prescriptions apply as described in the Brule River State Forest Master Plan for this management area in Chapter 2, page 104 of the master plan.
Accomplishments 2013	One sale that included 3 acres of red pine clearcut/natural regeneration to red pine and 5 acres of jack pine clearcut/maintain through natural seeding was sold and completed in 2013.

Land Management Areas
Area 12, Willard Road, Native Community Management Area

MASTER PLAN OBJECTIVES	**Long-term Management Objectives (100 years):** ▪ Restore and perpetuate the native mixed hardwood forest ecosystem including aspen, white birch, yellow birch, red maple, sugar maple, red pine, white pine and red oak. ▪ Promote a diverse mixture of size and age classes while slowly increasing the percentage of northern hardwood cover type in the area. ▪ Establish 2 forest management reference areas within this management area located at the Vapa Road

	Pines and Willard Road Pines sites (Epstein et al. 1999). These sites would be passively managed as large red/white pine reference sites. **Short-term Management Objectives (50 years):** ▪ Reduce the dominance of aspen from 1,600 acres to 1,000 acres allowing the other hardwoods present to increase to 600 acres of northern hardwood. ▪ Maintain 380 acres of white birch. ▪ Maintain a pine component with 250 acres of red pine, 60 acres of jack pine and 20 acres of white pine. ▪ Maintain 150 acres of oak.
Resource Management Prescriptions	General Management Prescriptions apply as described in the Brule River State Forest Master Plan for this management area in Chapter 2, page 106 of the master plan.
Accomplishments 2013	2 sales covering 138 acres were set up within this area in 2013. Both encompassed multiple cover types including jack pine, red oak, aspen, white birch, and mixed hardwood types. Areas of sales were designed to regenerate oak, aspen, and jack pine, with a combination of harvest techniques including leave tree marked shleterwood and clearcut harvest areas.

Land Management Areas
Area 13, Lake Minnesuing, Scenic Management Area

MASTER PLAN OBJECTIVES	**Long-term Management Objectives (100 years):** ▪ Maintain an older forest of primarily shade tolerant species such as northern hardwoods and hemlock for the scenic values of that setting. ▪ Monitor hemlock and white pine regeneration to determine if small scale management actions are necessary to keep these species as a component of the forest. **Short-term Management Objectives (50 years):** ▪ Thin an existing pine plantation to a naturally appearing density. ▪ Monitor hemlock and white pine regeneration and recommend management actions; openings, planting etc. to provide a future generation of these species. ▪ Allow natural succession to reduce areas of aspen and white birch in favor of shade tolerant northern hardwoods. This will take 80-100 years to see a major shift in species.
Resource Management Prescriptions	General Management Prescriptions apply as described in the Brule River State Forest Master Plan for this management area in Chapter 2, page 109 of the master plan.
Accomplishments 2013	A 17 acre red/white pine plantation was thinned to a natural density.

Recreation Management
Property-Wide Management Objectives

MASTER PLAN OBJECTIVES	▪ The specific recreation prescriptions together are intended to achieve the overall objective of recreational experience on the Brule River State Forest; rustic in nature and focusing on the use and appreciation of the natural resources of the property. ▪ These prescriptions are designed to support the following numbers of visits or user-days: 35,000 anglers; 45,000 paddlers; 35,000 hunters; 19,000 snowmobilers; 10,000 campers and 25,000 cross-country skiers along with smaller numbers of other users. The prescribed management, facilities and staffing levels are designed to provide the necessary support for the public use levels.
Accomplishments 2013	One way to measure visitor use is campsites registered and monies received during the year. (revenue includes vehicle admission stickers, campsite registration, and ski trail passes) 2011: 2420 campsites registered, $58,509 in recreation revenue 2012: 2120 campsites registered, $53,957 in recreation revenue 2013: 2037 campsites registered, $54,602 in recreation revenue

Recreation Management
Area 1, Lake Superior Clay Plain Native Community Management Area

MASTER PLAN MANAGEMENT PRESCRIPTIONS	▪ Continue to provide habitat and access for bird watching, hunting and fishing which are the primary recreation pursuits in this area. ▪ Provide gravel parking lots at major access points for hunter walking trails to reduce safety issues with current parking on town roadsides. ▪ Close all new forest management roads to motor vehicle traffic following any management activities. These roads would be open to walk-in hunters and other non-motorized recreators. ▪ Establish and maintain a new hunter walking trail within this area. ▪ Maintain the existing picnic/day use area. ▪ A small picnic area would be developed on Lake Superior near the area referred to as Bracket's Corner. This area would consist of extending and existing road approximately 800 feet and creating a parking area for 20-30 cars. An accessible boardwalk would be laid between the parking lot and the beach area, approximately 300 feet. A pit toilet and well would also be installed.
Accomplishments 2013	Some hunter walking trails within "new addition" area were mowed to facilitate hunter access. Others were too wet for access.

Recreation Management
Area 2, Sugar Camp Hill/Lenroot Ledges, Native Community Management Area

MASTER PLAN MANAGEMENT PRESCRIPTIONS	▪ Manage the historic Old Bayfield Road Hiking Trail found on Sugar Camp Hill as a moderately developed trail, except that no significant grading would be done to provide access for people with disabilities. Maintain the parking lot at the trailhead at its current capacity of approximately 6-8 cars. Construct a small accessible unisex pit toilet. This trail would be extended to the Co-op Park Bridge over the Brule River that currently supports the snowmobile trail in the winter. This would provide for connection between this hiking trail and the Copper Range Campground. ▪ Close the primitive roads within this area to motorized use except to facilitate resource management activities. These roads would be open to hunters and other non-motorized recreators for walking only and may be periodically mowed. ▪ Maintain the existing snowmobile trail that passes through this area and crosses the Brule River via the Co-op Park Bridge. ATV use of this trail would be limited to winter when snow cover is sufficient.
Accomplishments 2013	• Bayfield trail cleared and mowed. Snowmobile trail maintained.

Recreation Management
Area 3, Miller Road/CCC Square, Habitat Management Area

MASTER PLAN MANAGEMENT PRESCRIPTIONS	▪ Close the primitive roads within this area to motorized use except to facilitate resource management activities. These roads would be open to hunters and other non-motorized recreators for walking only and may be periodically mowed. ▪ Maintain the high quality game species habitat for hunting recreation. ▪ Maintain the existing snowmobile and winter ATV trail that passes through this area and crosses the Brule River via the Co-op Park Bridge.
Accomplishments 2013	• Mowed hunter walking trails.

Recreation Management
Area 4, Brule River, Scenic Management Area, River Recreation

MASTER PLAN OBJECTIVES	**Long-term Management Objectives (100 years):** ▪ Maintain the scenic quality of the Brule River while supporting public use. ▪ Provide recreational opportunities for viewing, angling, canoeing, and kayaking. All these activities have a long and rich history on the Brule River and have a place in its future. Implicit in the objectives is to manage the relationships between these user groups. ▪ Monitor and manage recreational use to assure compatibility with the natural resources and recreational facilities. **Short-term Management Objectives (50 years):** ▪ Continue to provide similar level of angler access through 18 parking lots and trails. Improve some conditions such as surfacing or erosion prevention as needed. (Refer to the Recreation map in the Maps Section at the back of this document) ▪ Reduce conflicts related to river recreation through increased education, user management and law enforcement. ▪ Improve the facilities at the landings to address resource damage and user conflict issues. ▪ Provide additional day use scenic viewing areas for drivers along the river. ▪ Maintain the public use facilities at the mouth of the Brule. ▪ Increase the visitor awareness of the ecology and history of the Brule River area.
Resource Management Prescriptions	Recreation Management Prescriptions apply as described in the Brule River State Forest Master Plan for this management area in Chapter 2, page 78.
Accomplishments 2013	• Angler lot maintenance • Canoe landing maintenance. • Mouth of Brule picnic area maintained.

Recreation Management
Area 4, Brule River, Scenic Management Area, Copper Range Campground

MASTER PLAN OBJECTIVES	**Long-term Management Objectives (100 years):** ▪ Manage this site to provide a rustic and scenic camping experience that provides sufficient services to maintain a safe and enjoyable experience for users. **Short-term Management Objectives (50 years):** ▪ Maintain a campground which provides 15-20 sites for a rustic camping experience. ▪ Evaluate and implement a campground layout which would increase the vegetation screening and

	space between campsites. ▪ Improve the water supply facilities to provide a safe, dependable water source.
Resource Management Prescriptions	Recreation Management Prescriptions apply as described in the Brule River State Forest Master Plan for this management area in Chapter 2, page 81.
Accomplishments 2013	Maintenance is ongoing.

Recreation Management
Area 4, Brule River, Scenic Management Area, Bois Brule Campground

MASTER PLAN OBJECTIVES	**Long-term Management Objectives (100 years):** ▪ Manage this area to provide a rustic and scenic camping and recreational experience that provides sufficient services to maintain a safe and enjoyable experience for users. **Short-term Management Objectives (50 years):** ▪ Maintain a campground that provides 20-25 sites for a rustic camping experience. ▪ Evaluate and implement a campground layout that would increase the vegetation screening and space between campsites. ▪ Develop a group campground area for up to four groups of a maximum (20 persons per group) to reduce group camping pressure on the two existing campgrounds. The group camp facility would be sited to provide spacing and vegetation buffering between the four group sites and between the campsites and the access road. ▪ Improve the water supply facilities to provide a safe water source.
Resource Management Prescriptions	Recreation Management Prescriptions apply as described in the Brule River State Forest Master Plan for this management area in Chapter 2, page 83.
Accomplishments 2013	In 2012, 2 walk in campsites were constructed between the drive to the picnic loop and the river to divert camping pressure from the 2 existing walk in sites. Vegetation buffers were maintained. These sites were opened to the public during 2013.

Recreation Management

Area 5, Brule River Bog and Spillway, Native Community Management Area

MASTER PLAN MANAGEMENT PRESCRIPTIONS	▪ Maintain the portion of the existing Historic Portage Trail that extends into the Bog Area as a moderately developed trail. ▪ Close the primitive roads within this area to motorized use except to facilitate resource management activities. These roads would be open to hunters and other non-motorized recreators for walking only and may be periodically mowed. ▪ Maintain existing canoe landings. ▪ Shoreline management on St. Croix Lake would be done to demonstrate best management practices to other waterfront owners. ▪ Vegetation would be managed to screen the picnic area from full view as well as to develop large trees to provide shade to the area. ▪ Continue to maintain the picnic area and boat landing as currently operated. ▪ The historic marker would be relocated to the picnic area to offer a better opportunity to pause and read the marker text as well as make a connection between the state forest and the protection of this important trail. ▪ A rustic, CCC era character would be developed in the picnic area through the use of round wood construction of picnic tables and benches, round wooden signposts, and rustic routed wooden signs in a historic font. ▪ The artesian well, a focal point of the area, would be fitted with an attractive wellhead and shelter that would reflect CCC era construction of similar sites. ▪ The Stone Chimney Road canoe landing would continue to provide parking for approximately four cars. A moderately developed trail would be maintained from the parking lot to the river. The trail has significant stretches of “corduroy” which has deteriorated and will be replaced. ▪ The landing at CTH P offers parking for two to three cars on the side of the road. Parking along side the road will continue to be permitted. No additional developments are suggested for this area. ▪ The St. Croix Picnic Area qualifies for a Type 4 recreation area. The St. Croix Picnic Area would provide parking for 10-15 vehicles and trailers. As many as 10 picnic tables would be provided. The boat landing and pier would continue to be provided and may need to be replaced during this planning cycle due to deterioration of the concrete landing. At that time the orientation of the landing would be reconsidered to provide the easiest access. ▪ A section of the North Country Trail would be constructed east of CTH P. It would pass through a part of the bog and cross to the west side of CTH P and then head toward Solon Springs.
Accomplishments 2013	Maintenance ongoing. Major renovations of the Lake St. Croix boat landing and picnic area were accomplished during 2012-2013, creating an easy to use boat landing, complete with floating dock, as well as a new bathroom. Traffic flow was re-routed to provide continued access to the popular artesian well along with boat and trailer parking. A new parking area was constructed in conjunction with the boat landing project at lake St Croix to create a more defined trailhead and improved signage for the North Country/Historic Portage Trail.

Recreation Management
Area 6, Afterhours Recreation Management

MASTER PLAN MANAGEMENT PRESCRIPTIONS	▪ Provide the necessary vegetation maintenance along the trails to facilitate grooming and safe recreation. ▪ Provide existing levels of trail facilities, grooming and maintenance for cross-country skiing. These would be fully developed trails cleared 20 feet or more and maintained 16-20 feet wide. ▪ Interpretive signs will be placed along the trail describing the role forest management plays in providing recreation opportunities. For instance, most trails were built for forest management. Some of the trails were even rail grades from the early 1900s that served the timber industry. ▪ An Adirondack-style warming shelter would be constructed at a concealed location near a river overlook to provide a rest area and picnic opportunity. ▪ A pit toilet would be provided along the trail at a point roughly the furthest from the headquarters. ▪ Expand the Afterhours Ski Trail by building an additional loop.
Accomplishments 2013	Ski trail and other facilities were maintained.

Recreation Management
Area 8, Troy Pit Pines, Forest Production Area

MASTER PLAN MANAGEMENT PRESCRIPTIONS	▪ Maintain the existing snowmobile and winter ATV trail that passes through the area as open for winter use only. It would be closed to motorized traffic the rest of the year. ▪ Maintain the existing North Country National Scenic Trail that passes through this area as a lightly developed trail with the existing parking lot and access. ▪ Develop a cross-country skiing trail system. The Devils Hole Trail System would be a 20-25 mile network of trails specifically laid out for the purpose of cross-country skiing. These trails would be unsurfaced and mowed.

	▪ Develop a parking lot for the Devils Hole Trail System with the capacity for 100 cars with a natural surface of grass or other suitable natural material. No specific accommodations or operations will be made to support mountain bikes, a rustic warming shelter with flush toilets, and a separate and concealed maintenance facility. These developments would accommodate the increase in demand for new trails while protecting the natural qualities of the Brule River State Forest. This facility would be developed on Samples Road about 1 ½ miles from the intersection of Troy Pit Road and HWY 27. This area provides adequate area to construct parking lots, buildings, and trails on flatter lands adjacent to the rolling topography sought out for skiing. It also utilizes existing roads to get to the site. ▪ The current network of forest roads would be utilized during management activities, and individual roads would be closed to public access based upon the potential for resource degradation. Any new forest roads and drivable skid trails built during forest management activities would be closed following the completion of the timber sale activities. Timber sales that have potential for firewood harvesting would have new roads and skid trails left open for the 2 years following sale close-out. ▪ Rush Lake - Maintain the existing walk-in access for boating as well as 2 small parking areas. - This area is currently being used as an undesignated picnic area and improvements such as a campfire ring and a picnic table may be developed to protect the site from further disturbance. ▪ Kurt's Deep Depression: - No recreational development is proposed. ▪ Devils Hole Pines: - The cross-country ski trail would be near this site. However, the trail would be designed to avoid this site. - These trails would be unsurfaced and mowed. They will be 20 feet wide with a 16-foot ski grooming width. Existing roads will be used for part of the trail route.
Accomplishments 2013	• Maintained at current levels.

Recreation Management
Area 9, Hazel Prairie Pines, Forest Production Area

MASTER PLAN MANAGEMENT PRESCRIPTIONS	The current network of forest roads would be utilized during management activities and individual roads would be closed following timber sales based upon the potential for resource degradation. Any new forest roads and drivable skid trails built during forest management activities would be closed following the completion of the timber sale activities. Timber sales that have potential for firewood harvesting would have new roads and skid trails left open for the two years following sale closeout. Fire suppression equipment and personnel would utilize these lightly traveled roads for access and as fire breaks if necessary. Closed roads would remain open o hunters and other non-motorized recreators for walking only.

Accomplishments 2013	• No new activity - side roads remain open to motorized vehicles.

Recreation Management
Area 10, Pine Forest and Barrens, Native Community Management Area

MASTER PLAN MANAGEMENT PRESCRIPTIONS	▪ Maintain the existing snowmobile and winter ATV trail that passes through the area, open from December 1 to March 30 annually. The trail would be closed to motorized traffic the rest of the year. ▪ Re-route the trail, if possible, to improve the safety of the trail and re-route it from a steep area on private land. ▪ A loop trail and scenic overlook is to be added to the segment to the existing snowmobile trail and winter ATV trail that parallels the Bois Brule River. The loop would be approximately 200 yards long and would lead riders to a scenic overlook of the Brule Bog located on the terrace adjacent to Jerseth Creek. The trail would be designed as a one-way, low volume snowmobile trail; five feet wide with a two foot wide cleared strip on either side. The surfacing would be stable aggregate with the trail bed smoothly graded and well compacted. The overlook would be approximately a 12 foot diameter aggregate surfaced are with a kiosk that interprets to ecological features of the Brule Bog. The trail would be aligned to avoid larger, older trees to conform to the existing grade wherever possible. ▪ Maintain the current level of forest roads open to vehicular traffic. These roads provide a valuable function as fire breaks and public access. Some roads may be closed following management actions while others are being opened. ▪ Maintain the existing North Country National Scenic Trail that passes through this area as a lightly developed trail.
Accomplishments 2013	Maintained snowmobile trail at current levels. NCT also maintained.

Recreation Management
Area 11, Gordon Annex, Forest Production Area

MASTER PLAN MANAGEMENT PRESCRIPTIONS	▪ Due to the location of the prison, much of this area is off limits to public use. The only developed recreation area on the property is a rustic boat landing on the Eau Claire River located off of Highway G. Other recreational activities involve hunting outside of the posted area surrounding the prison. ▪ The current network of forest roads would be utilized during management activities, and individual roads would be closed to public use following timber sales based upon the potential for resource degradation. Any new forest roads and drivable skid trails built during forest management activities would be closed following the completion of the timber sale activities.
Accomplishments 2013	No new developement.

Recreation Management
Area 12, Willard Road, Native Community Management Area

MASTER PLAN MANAGEMENT PRESCRIPTIONS	▪ Most of the primitive roads in this management unit are hunter-walking trails such as those along Anderson Road and Hilltop Road. Other roads that are currently open to vehicle traffic would remain open for this use unless resource degradation is occurring as a result of the vehicular traffic. ▪ Close newly constructed primitive roads that are built for management purposes immediately following the management activity unless there is good potential for firewood gathering. If left open for firewood gathering, the roads would be open for 2 years following the management activity, and then bermed or gated to block vehicles. ▪ Retain forest roads that are open for traffic, as they serve as firebreaks and provide access for fire suppression equipment.
Accomplishments 2013	No activity. Some hunter walking trails were improved in conjunction with logging activity.

Recreation Management

Area 13, Lake Minnesuing, Scenic Management Area

MASTER PLAN MANAGEMENT PRESCRIPTIONS	▪ Maintain the existing boat landing at Lake Minnesuing as a Type 3 recreational use setting with a small mowed area. ▪ The existing forest roads in the Lake Minnesuing area would be closed to motorized travel. These trails would be designated as a Type 3 recreational use setting with restrictions, and be maintained as lightly developed trails through periodic mowing. A primitive nature trail would be maintained leading to a picnic spot next to the lake. These developments would accommodate hikers and picnickers while preserving the rustic character of the area.
Accomplishments 2013	• Forest roads have been closed to motorized travel. All other facilities are being maintained at current levels. • 2 boat landings maintained at current levels.

Cultural Resources
Area 1, Lake Superior Clay Plain Native Community Management Area

MASTER PLAN PRESCRIPTION	Preserve and protect the historic Clevedon settlement grave sites in this management area**.**
Accomplishments 2013	

Cultural Resources
Area 7, Special Management Area

MASTER PLAN PRESCRIPTION	Preserve, protect and interpret the site of the former CCC camp and develop a non-personal interpretive facility to explain that camp's role in the history of BRSF. Opportunities for this type of user education were identified in the Environmental Education and Awareness Assessment. (Fannucchi et al. 1998).
Accomplishments 2013	

Fish Habitat Management
Property-Wide Management Provisions

MASTER PLAN OBJECTIVES	**Long-term Management Objectives (100 years):** ▪ Provide a high quality, naturally reproducing and self-sustaining trout and salmon fishery. In order to ensure that the population is self-sustaining, it is critical that water quality be maintained, and adequate high quality in-stream habitat exists to support spawning and all other life stages for the several species of salmonids which coexist in the river. ▪ Continue to provide a high quality angling experience for both lake run and resident salmonids. **Short-term Management Objectives (50 years):** ▪ Continue to identify sites where habitat restoration or improvement could benefit the fishery, without impacting the natural scenic quality of the site and continue to apply the appropriate habitat management techniques to those sites.
Resource Management Prescriptions	Fish Habitat Management Prescriptions apply as described in the Brule River State Forest Master Plan for this management area in Chapter 2, Property-Wide Management Provisions (note Master Plan Variance approved July, 2008).
Accomplishments 2013	Ongoing streamside work. Extensive fisheries habitat work was done in the Beupre Springs Area by volunteers associated with the Brule River Sportsmans Club, with removal of old beaver dams and restoration of streambed to re-connect Springs area to the Brule River, thereby creating brook trout spawning habitat.

Fisheries Management
Area 4, Lamprey Barrier

MASTER PLAN OBJECTIVES	The short-term and long-term management objective for the Lamprey Barrier is to maintain this site to control the invasive non-native sea lamprey and to facilitate future study of the fishery.
Management Prescriptions	▪ Maintain the structure and access road to allow its continued use and up-grading as necessary. ▪ Discourage access to this site for non-scientific purposes.
Accomplishments 2013	*Lamprey barrier was maintained.*

Watershed Management
Property-Wide Management Objectives

MASTER PLAN OBJECTIVES	▪ Protect and maintain in-stream conditions that supply all the various habitat needs for the self-sustaining multi-species fishery and other aquatic biota. The tributaries act as important spawning and nursery areas for the Brule River system fishery. ▪ When planning specific land management actions, state forest staff will consider the other management occurring within a subwatershed to assure watershed protection. ▪ Manage land resources to control peaks in overland water flow which can result in-stream bank erosion, particularly on the clay plain. Research related to this indicates that in a watershed with different aged forest stands and some open areas, spring snowmelt does not occur all at once. This reduces peaks in overland water flow. In addition, if more than 40% of a watershed is in forests greater than 15 years old the potential for high peak flows is significantly reduced (Verry 1986, WDNR 1995).
Accomplishments 2013	*On going.*

Real Estate Management
Property-Wide Management Provisions

MASTER PLAN DESCRIPTION	The Brule River State Forest acquisition emphasizes priority on acquisition of large tracts of undeveloped lands, parcels with water frontage, and parcels for future recreation sites. This is accomplished by fee purchase, exchange, donation or conservation easements. To maintain an effective acquisition program, the Department pursues properties based on the level of interest of the seller.
Accomplishments 2013	No activity in 2013.

Administration and Operations
Area 7, Special Management Area

MASTER PLAN DESCRIPTION	**Long-term Management Objectives (100 years):** ▪ Maintain the structures and facilities in this area that provide functions such as forest headquarters offices, customer service to the public, garages, equipment storage and maintenance. **Short-term Management Objectives (50 years):** ▪ Develop additional educational opportunities and customer services in association with the existing building complex.
Management Activities	Administrative Management Prescriptions apply as described in the Brule River State Forest Master Plan for this management area in Chapter 2, page 90.
Accomplishments 2013	*Ongoing maintenance.*