

Wisconsin Department of Natural Resources

Monitoring the Implementation of Property Master Plans

Property: Governor Knowles State Forest

Master Plan Year: 2015

Land Management Areas

Forest Production Area – Bluff Lake

<p>MASTER PLAN OBJECTIVES</p>	<p>Long-Term Management Objectives (100 years) The Bluff Lake Management Area will provide a continuous supply of forest products with consideration given to the aesthetic environment for recreation. Aspen will continue to be the dominant cover type. White pine and red oak will increase in some areas, especially within the river corridor, contributing to the aesthetic qualities of the area. Jack pine will increase and will be managed primarily for forest products. The age structure of the early successional aspen/birch forest types will increase, in coordination with the Danbury Wildlife Area, providing habitat for species such as Ruffed Grouse, Woodcock, Golden-winged Warbler and other common wildlife and Species of Greatest Conservation Need (SGCN) that depend on this habitat. Water quality and riparian habitat will be protected. Swamp hardwood stands will likely be impacted by Emerald Ash Borer (EAB). Ample hunting and wildlife viewing opportunities will exist through a variety of habitats. Deer, bear, Ruffed Grouse and other wildlife will continue to flourish in this area.</p> <p>Short-Term Objectives (50 years)</p> <ol style="list-style-type: none"> 1. Maintain the overall health and vigor of the forest, aesthetic appeal, and continue to provide wildlife habitat. 2. Protect and enhance the water quality and riparian habitat of Bluff Lake, Clam Flowage, St. Croix River and its tributaries, as well as the wetlands in the area. 3. Develop strategies to address future EAB impacts in swamp hardwood stands. 4. Promote red oak development and regeneration where it occurs. 5. Increase the presence of jack, red, and white pine on suitable sites across the area, especially in mixed hardwood stands nearer the St. Croix River where red pine and white pine are already present. 6. Maintain the existing acreage of pure aspen stands. In mixed stands of aspen and oak, increase the acreage of aspen to provide habitat for species such as Ruffed Grouse, Woodcock and Golden-winged Warbler. 7. Minimize the appearance of management activities that are visible from the river, lakes, flowages, and intensive recreational use areas.
<p>Appropriate Management Activities or Prescriptions</p>	<ol style="list-style-type: none"> 1. This entire area is managed using active management techniques and will be implemented following all DNR handbooks and guidelines. 2. When harvesting timber within view of the St. Croix River, design sales so that no management activity can be seen from the river during leaf on conditions. Use aesthetic management techniques for timber harvests that are visible from the rivers, lakes, flowages, and intensive recreational use areas such as reducing the size of cuts, establishing irregular harvest boundaries, conducting partial harvests, planting trees, favoring longer-lived species, and where necessary, harvesting during the winter.

	<ol style="list-style-type: none"> 3. In mixed stands with scattered pine, retain some pine and oak legacy trees where possible and employ silvicultural techniques that favor pine regeneration and improve structural diversity. 4. Efforts will be made to manage the aspen in this area and the Danbury Wildlife Area as one unit in terms of forest regulation. Aspen harvests within this area will be determined by analyzing the aspen recon data for this area in conjunction with the aspen recon data for the Danbury Wildlife Area. 5. Plant open fields, acquired through land acquisition, with species suitable to the site. 6. Use adaptive management in the swamp hardwoods areas by employing available EAB guidance. Inaccessible stands adjacent to National Park Service ownership will be passively managed.
<p style="text-align: center;">Accomplishments 2015</p>	<p><u>Timber Sale Establishment</u> Tract 20-15 – This is a 77 acre timber sale near Bluff Lake features a mix of aspen, oak, and aspen. Other species include white pine, mixed hardwoods, jack pine, and ash. The prescription favors expanding the aspen and increasing aspen regeneration, regenerating oak, improving red pine vigor, harvesting mature jack pine and ash, and maintaining aesthetics along the St Croix River by favoring white pine. STO #1, 2, 3, 5, 6, 7</p> <p><u>Site Prep for Planting</u> – Compartment 35 Stand 42 (18 acres) and Compartment 39 Stand 3 (20 acres) were sprayed with Glyphosate, Imazapyr, and Sulfometuron, and disc trenched to prepare the sites for red pine planting. STO #1, 5</p> <p><u>Bud Capping</u> – Plantation 6-14 (5 acres) was bud capped in the fall of 2015 to prevent deer browse. STO #1, 5</p>

Land Management Areas

Forest Production Area – Sand Plain

<p style="text-align: center;">MASTER PLAN OBJECTIVES</p>	<p><u>Long-Term Management Objectives (100 years)</u> The Sand Plain Forest Production Management Area will provide a continuous supply of forest products with consideration given to the aesthetic environment for recreation. Jack, red and white pine will increase and scrub oak dominated areas will be less abundant. Pine will especially be dominant in areas not already dominated by aspen. Water quality and riparian habitat will be protected and maintained. Swamp hardwood stands will likely be impacted by Emerald Ash Borer. The Sand Plain Forest Production Management Area will continue to be an attractive setting for people to enjoy a variety of recreational opportunities, including hunting, hiking, equestrian uses, fishing, cross country skiing, snowshoeing, and wildlife viewing. Although managed primarily for the sustainable production of forest products, the aesthetically pleasing features of this area will be maintained or improved.</p> <p><u>Short-Term Objectives (50 years)</u></p> <ol style="list-style-type: none"> 1. Maintain the overall health and vigor of the forest, aesthetic appeal, and continue to provide wildlife habitat. 2. Protect water quality and riparian habitat of the St. Croix River, its tributaries, and the wetlands in the area. 3. Minimize, to the extent possible, the spread of oak wilt and the future impacts of gypsy moth infestations so as to maintain an oak component within the area. 4. Increase the presence of jack, red, and white pine on suitable sites across the area. Specifically, increase the acreage of stands that are dominated by jack pine, and increase natural pine regeneration in mixed stands where red pine and white pine are not the dominant species. 5. Maintain a diversity of age classes across all timber types, thereby providing a continuum of wildlife habitats,
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	<p>including early seral stage.</p> <ol style="list-style-type: none"> 6. Increase natural tree regeneration and improve structural diversity on appropriate sites. 7. Minimize the appearance of management activities that are visible from the rivers, flowages, and intensive recreational use areas.
<p>Appropriate Management Activities or Prescriptions</p>	<p>This entire area is managed using active management techniques and will be implemented following all DNR handbooks and guidelines.</p> <ol style="list-style-type: none"> 1. When harvesting timber within view of the St. Croix River, design sales so that no management activity can be seen from the river during leaf on conditions. Use aesthetic management techniques for timber harvests that are visible from the rivers, flowages, and intensive recreational use areas such as reducing the size of cuts, establishing irregular harvest boundaries, conducting partial harvests, planting trees, favoring longer-lived species, and where necessary, harvesting during the winter. 2. Where feasible, use natural conversion to increase the presence of white pine where white pine is a secondary stand component. Efforts should focus on overstory removal and management prescriptions that promote natural white pine regeneration. 3. In mixed stands with scattered pine, retain some large red and white pine legacy trees and employ silvicultural techniques that favor pine regeneration and improve structural diversity. 4. Use prescribed fire where appropriate to increase plant and structural diversity, promote natural tree regeneration, or to prepare sites for artificial regeneration. 5. Site preparation for regeneration will be tailored to meet the prescribed regeneration objectives. The forester will use the least intensive site preparation prescription that balances the intensity of the site preparation against the desired end stocking levels. 6. Provide a shifting mosaic of early seral stage temporary barrens on appropriate sites. Larger harvests are more desirable from a wildlife habitat standpoint. 7. Decrease the acreage of oak through natural conversion to other species or artificial regeneration techniques. 8. Consider earlier rotations of oak stands not yet infected with oak wilt in order to mitigate susceptibility to wind damage. 9. On oak wilt sites where oak maintenance is the objective, try a variety of techniques that favor seed source oak regeneration. Systems may include mechanical seed bed preparation through various types of scarification, prescribed fire, or any other techniques expected to promote seed origin oak. 10. Use adaptive management in the swamp hardwood sites. Inaccessible stands will be passively managed. On accessible swamp hardwood sites, depending on EAB impacts, use silvicultural trials to better understand conversion opportunities so that aesthetic qualities and timber production are maintained. 11. Plant open fields acquired through land acquisition with tree species suitable to the site.
<p>Accomplishments 2015</p>	<p><u>Timber Sale Establishment</u></p> <p>Tract 10-15 – This is a 134 acre timber sale that features the management of oak, aspen, red pine, and ash regeneration harvest to improve the health and vigor of the stand. BMPs were implemented for four waterways, as well as, bordering wetland areas. Harvest prescriptions and boundaries were modified in consideration for recreational uses and St Croix River aesthetics. Prescriptions favor increasing aspen and favoring natural pine regeneration where feasible. One of the blocks has red and white pine present at all levels that will continue to develop after the harvest. STO #1, 2, 3, 4, 5, 6, 7</p> <p>Tract 30-15 – This is a 35 acre timber sale featuring white pine, aspen, and jack pine management adjacent to the Trade River. RMZs have been installed on both sides of the Trade River. STO # 1, 2, 3, 4, 5, 6, 7</p>

	<p>Tract 40-14 – This is a 67 acre oak/jack pine/aspen clearcut and a 7 acre spruce thinning. The regeneration plan is intended to favor aspen and pine. The harvest will improve access throughout the black horse trail. STO #1, 2, 3, 4, 5, 7</p> <p>Site Preparation – Compartment 10 Stand 11 (12 acres) and Compartment 24 Stand 2 (25 acres) were sprayed with Glyphosate, Imazapyr, and Sulfometuron, and disc trenched to prepare the sites for red pine planting. STO # 1, 4, 5</p> <p>Compartment 28 Stand 18 (15 acres) was sprayed with Glyphosate, Imazapyr, and Sulfometuron, and disc trenched to prepare the sites for jack pine planting. STO # 1, 4, 5</p> <p>Compartment 25 Stand 11 (12 acres) was disc trenched to prepare the sites for red pine planting. STO # 1, 4, 5</p> <p>Tree Planting – Plantation 1-15 (87 acres) was planted to jack pine in the spring. STO # 1, 4, 5</p> <p>Chemical Release – 188 acres were completed in pine stands to maintain stocking and improve vigor. Areas treated: plantations 1-14, 5-06, 2-10, 7-14, 1-11 and 5-14. STO # 1, 4, 5, 6</p> <p>Pine Bud Capping – 280 acres of red, white, and jack pine were bud capped in the fall of 2015. The objective was to protect seedlings susceptible to deer browse. Areas treated: plantations 4-14, 1-14, 4-07, 4-11, 7-14, 1-11, 1-15, and 5-14. STO #1, 4, 5, 6</p>
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Land Management Areas

Native Community Area – St. Croix River Lowlands

<p>MASTER PLAN OBJECTIVES</p>	<p>Long-Term Management Objectives (100 years) A high quality complex of native wetland community types will be present. Aspen and oak will be less common as they succeed to the northern hardwood or naturally convert to white pine. Ecological values including water quality, hydrology, native flora, natural communities and rare species habitats will be protected. Ample opportunities for research, education, ecological interpretation and low-impact uses such as hunting, hiking, bird-watching, photography, and nature study will be available.</p> <p>Short-Term Objectives (50 years)</p> <ol style="list-style-type: none"> 1. Across the entire management area, develop old-growth characteristics, including biologically mature trees, large diameter trees, structural diversity, standing dead snags, coarse woody debris, and an uneven canopy. 2. Protect and enhance riparian habitat. 3. Maintain a somewhat remote and undeveloped site along the St. Croix River.
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<p style="text-align: center;">Appropriate Management Activities or Prescriptions</p>	<ol style="list-style-type: none"> 1. Passively manage the entire area with the exception of clearing trails (material shall be left on site) to maintain low impact public access and invasive species control. 2. Salvage operations due to catastrophic wind, ice, fire, disease or insects may take place. Prior to salvage an interdisciplinary team will be constructed to determine if salvage operations or additional management could be completed, considering the original objectives of the area. 3. Periodically monitor the area for the presence of invasive species 4. Control invasive species using appropriate techniques, including the use of pesticides. 5. Monitor this area within the next ten years for the presence of additional rare, threatened or endangered species, as resources allow.
<p style="text-align: center;">2015</p>	<p>No management activity in 2015. STO # 1, 2, 3</p>

Land Management Areas

Native Community Area – Brandt Pines and Foxes Landing

<p style="text-align: center;">MASTER PLAN OBJECTIVES</p>	<p>Long-Term Management Objectives (100 years) The structural, compositional and functional characteristics associated with old growth and managed old growth forests will be present. Long-lived species such as white pine and bur oak will increase over time. Water quality and riparian habitat will be protected. Swamp hardwood forests will likely be impacted by Emerald Ash Borer.</p> <p>Short-Term Management Objectives (50 years)</p> <ol style="list-style-type: none"> 1. Allow old growth characteristics to develop naturally throughout parts of the area. 2. Increase the abundance of red and white pine at the Foxes Landing Zone while promoting an older, mixed pine oak forest community. 3. Maintain and increase representation of mature bur oak on suitable sites. 4. Allow swamp hardwood inclusions to continue developing older forest attributes. 5. Promote research and demonstration projects that seek to balance the development of old forest characteristics with active forest management practices that maintain long lived pine and oak species.
<p style="text-align: center;">Appropriate Management Activities or Prescriptions</p>	<p>Entire Area Management Prescriptions</p> <ol style="list-style-type: none"> 1. Use fire where possible to encourage pine and oak regeneration while reducing fire-intolerant species such as red maple and ironwood. 2. Maintain and increase the representation of bur oak where possible. Allow bur oak to mature beyond economic rotation. 3. Retain all snags and coarse woody debris to promote old growth characteristics when retention does not conflict with other forest management activities or present hazards. 4. Do not harvest timber within swamps or wetlands within the area. 5. Periodically monitor all areas within the site for the presence of invasive species. 6. Control invasive species using appropriate techniques, including the use of pesticides. 7. Manage the Brandt Pines Zone and portions of the Brandt Oaks and Foxes Landing Zones for biologically mature, large diameter trees, structural diversity, standing and downed coarse woody debris, and an uneven canopy. <p>Foxes Landing Zone</p> <ol style="list-style-type: none"> 1. Promote red and white pine and red, white, and bur oak by reducing red maple, aspen, and northern pin oak through timber harvesting and periodic prescribed fire. Employ extended rotation forest management on pine types while selecting against northern pin oak, red maple and aspen.

	<p>Brandt Oaks Zone</p> <ol style="list-style-type: none"> 1. Use timber harvest and prescribed fire to promote bur oak, white pine and red pine where possible, while decreasing red maple and aspen. <p>Brandt Pines Zone</p> <ol style="list-style-type: none"> 1. Passively manage the entire zone. Active management is limited to clearing trails, eliminating hazard trees, controlling invasive species, and the use of prescribed fire. 2. Use prescribed fire at seven to ten year intervals to reduce shade tolerant forest types and stimulate native ground vegetation. 3. Salvage operations following catastrophic wind, fire, disease or insect outbreaks may take place. However, prior to salvage, an interdisciplinary team will be consulted to determine whether salvage operations should proceed, as well as how they should be conducted.
<p>Accomplishments 2015</p>	<p>No management activity in 2015. STO # 1, 3, 4</p>

Land Management Areas

Native Community Area – Lagoos Creek Forest and Wetland

<p>MASTER PLAN OBJECTIVES</p>	<p>Long-Term Management Objectives (50-100 years) Portions of the management area will have developed the structural, compositional and functional characteristics associated with older forest. The Blow Down Zone will continue to be dominated by early successional timber types with some white pine present. Ample opportunities for research, education, ecological interpretation and low-impact uses such as hunting, hiking, birdwatching, photography, and nature study will be available. Stands of Hardwood Swamp will continue to be present as inclusions within a broader forested setting.</p> <p>Short-Term Management Objectives (50 years)</p> <ol style="list-style-type: none"> 1. Maintain the overall health and vigor of the forest, aesthetic appeal, and continue to provide habitat for migratory and forest interior birds, as well as other wildlife. 2. Encourage and maintain longer-lived species, such as white pine, wherever feasible. 3. Protect and enhance the water quality and riparian habitat of the St. Croix River, its tributaries, and wetlands in the area. 4. Develop structural diversity and old growth characteristics such as large diameter trees, standing dead snags, and coarse woody debris.
<p>Appropriate Management Activities or Prescriptions</p>	<p>Area Specific Resource Management Prescriptions</p> <ol style="list-style-type: none"> 1. Passively manage forested wetlands by allowing natural succession and natural disturbance to create structural diversity and old growth characteristics 2. Retain snags and coarse woody debris in order to promote old growth characteristics when retention does not conflict with other forest management activities or present hazards. 3. Harvest of fine woody material, as defined by the Department's Woody Biomass Harvesting Guidelines, will not occur in this management area. 4. Salvage operations following catastrophic wind, fire, disease or insects may take place. However, prior to salvage, an interdisciplinary team will be consulted to determine whether salvage operations should proceed, as well as how they shall be conducted. 5. Periodically monitor all areas within the site for the presence of invasive species. 6. Control invasive species using appropriate techniques, including the use of pesticides.

	<p>Ecological Reference Zone</p> <ol style="list-style-type: none"> 1. Passively manage the entire zone. Active management is limited to the clearing of trails when a safety hazard is present, and the control of invasive species. <p>Blow Down Zone</p> <ol style="list-style-type: none"> 1. Utilize timber harvest to maintain the current forest types, with emphasis on promoting long-lived species such as white and red pine. Reduce shade-tolerant species such as red maple and ironwood.
<p>Accomplishments 2015</p>	<p>No management activity in 2015. STO# 1, 2, 3, 4</p>

Land Management Areas

Native Community Area – Sunrise Ferry Terrace

<p>MASTER PLAN OBJECTIVES</p>	<p>Long-Term Management Objectives (100 years) The structural, compositional and functional characteristics associated with older forest such as coarse woody debris and standing dead snags will provide habitat and structural diversity along with smaller patches of young forest. Tree species composition will remain the same, with pine and oak as the dominants, along with small pockets of aspen. Swamp hardwood inclusions will continue to provide habitat for associated wildlife species.</p> <p>Short-Term Management Objectives (50 years)</p> <ol style="list-style-type: none"> 1. Maintain the overall health and vigor of the forest, aesthetic appeal, and continue to provide habitat for migratory and forest interior birds, as well as other wildlife. 2. Maintain and regenerate pockets of aspen. 3. Increase the abundance of white pine and develop older pine and mixed pine-oak forest communities, where possible. 4. Maintain and increase the abundance of bur and red oak, where possible. 5. Maintain forest stands dominated by old trees, large amounts of coarse woody debris, numerous standing dead snags, and an age diversity of trees. 6. Protect and maintain the swamp hardwoods that occur within the area. 7. Protect and enhance the water quality and riparian habitat of the St. Croix River, its tributaries, and the wetlands in the area. 8. Increase the presence of oak and pine regeneration by controlling and minimizing the spread of invasive species such as buckthorn, exotic honeysuckle and garlic mustard. 9. Minimize the appearance of management activities that are visible from the rivers, flowages, and intensive recreational use areas.
<p>Appropriate Management Activities or Prescriptions</p>	<ol style="list-style-type: none"> 1. Conduct control trials to evaluate appropriate methods for control and/or removal of invasive species, especially buckthorn. Trials may include mechanical and chemical treatments and prescribed burning. The effectiveness of the control trials should be evaluated, and if effective techniques have been identified, efforts should be made to control invasive species, especially buckthorn, in this area on a larger scale. Trials should also include evaluating methods for regenerating stands of long-lived forest types if/when control is achieved. 2. Use a variety of harvest prescriptions, including thinnings, canopy gaps, patch clear cuts and shelterwood cuts to encourage regeneration while maintaining some old forest characteristics within pine and oak stands. Reduce shade tolerant species such as red maple and ironwood. 3. Conduct patch clearcuts where small aspen pockets exist.

	<ol style="list-style-type: none"> 4. Passively manage swamp hardwood stands. 5. When harvesting timber within view of the St. Croix River, design sales so that no management activity can be seen from the river during leaf on conditions. Use aesthetic management techniques for timber harvests that are visible from the rivers, flowages, and intensive recreational use areas such as reducing the size of cuts, establishing irregular harvest boundaries, conducting partial harvests, planting trees, favoring longer-lived species, and where necessary, harvesting during the winter. 6. Employ extended rotation forest management on pine species to develop older forest stands with large diameter trees and structural diversity while selecting against northern pin oak, red maple and aspen.
Accomplishments 2015	No management activity in 2015. STO# 1, 5, 6, 7

Land Management Areas

Native Community Area – Trade River Corridor and Wolf Creek Lowlands

MASTER PLAN OBJECTIVES	<p>Long-Term Management Objectives (100 years) Below the Trade River escarpment, the forest will have developed the structural, compositional and functional characteristics associated with old-growth forest. Above the escarpment, the forest will have an increased component of long-lived tree species such as white pine and bur oak. The high quality wetland community types throughout the area will be protected and maintained to provide ecological values including water quality, hydrologic processes, native flora, natural communities and rare species habitats. Ample opportunities for education, ecological interpretation and low-impact uses such as hunting, hiking, bird-watching, photography, and nature study will be available.</p> <p>Short-Term Management Objectives (50 years)</p> <ol style="list-style-type: none"> 1. Above the Trade River escarpment, develop older stands of longer-lived species such as white pine and bur oak where appropriate. 2. Within the lowlands, allow natural succession and natural disturbance to gradually produce structural diversity and the development of old-growth characteristics such as large diameter trees, standing dead snags, and coarse woody debris. 3. Protect water quality through protection of riparian habitat and forested seeps. 4. Protect and maintain rare species habitats and high-quality natural communities. 5. Promote research and demonstration that seek to balance the development of old forest characteristics with active forest management practices that maintain long-lived pine and oak species.
Appropriate Management Activities or Prescriptions	<p>Entire Management Area</p> <ol style="list-style-type: none"> 1. Perform no timber harvest within hardwood swamp inclusions or other wetlands in the area. 2. Retain snags and coarse woody debris in order to promote old growth characteristics when retention does not conflict with other forest management activities or present hazards. 3. Harvest of fine woody material, as defined by the Department's Woody Biomass Harvesting Guidelines, will not occur in this management area. 4. Salvage operations following catastrophic wind, fire, disease or insects may take place. However, prior to salvage, an interdisciplinary team will be consulted to determine whether salvage operations should proceed, as well as how they shall be conducted.

	<ol style="list-style-type: none"> 5. Periodically monitor all areas within the site for the presence of invasive species. 6. Control invasive species using appropriate techniques, including the use of pesticides. 7. Encourage and maintain longer-lived species, such as white pine, wherever feasible <p>White Pine Zone</p> <ol style="list-style-type: none"> 1. Employ extended rotation forest management on white pine to develop older forest stands with large diameter trees for seed production and structural diversity. 2. Increase white pine by selecting against northern pin oak, red maple and aspen. Techniques will be tailored to meet on-the-ground needs and may include, but are not limited to, extended rotations, intermediate thinnings, canopy gaps, and patch clear cuts. 3. Reforestation after timber harvests will be limited to natural regeneration. 4. Plant acquired open fields to white pine. <p>Floodplain Zone</p> <ol style="list-style-type: none"> 1. Passively manage the entire site. Active management is limited to the clearing of trails, eliminating safety hazards, and the control of invasive species using appropriate techniques, including the use of pesticides. 2. Encourage opportunities for education and interpretations of these natural communities and habitats.
<p style="text-align: center;">Accomplishments 2015</p>	<p>Pine Bud Capping – 5 acres of white pine were bud capped in the fall of 2015. The objective was to protect seedlings susceptible to deer browse. Area treated: plantations 2-14. STO #1</p> <p>STO # 1, 2, 3, and 4 were achieved in parts of this management area.</p>

Land Management Areas

Habitat Management Area – Kohler-Peet Barrens

<p style="text-align: center;">MASTER PLAN OBJECTIVES</p>	<p>Long-Term Management Objectives (100 years) The large open oak barrens will persist, providing a high quality, ecologically functional prairie, shrub, oak, and pine barrens habitat for rare species dependent on this type. The forested jack pine barrens will contain a range of age and size classes of jack pine stands, some that are nearly pure jack pine, and others that are jack pine mixed with red pine, scrub oak and aspen. A continuum of community types will be present, ranging from relatively open Pine Barrens to older stages of Northern Dry Forest. High quality barrens ground flora will be maintained during all management treatments. Opportunities for hunting, trapping, hiking, nature study, and bird watching will be available.</p> <p>Short-Term Management Objectives (50 years)</p> <ol style="list-style-type: none"> 1. Maintain the open oak barrens and forested jack pine barrens communities to provide habitat for barrens associated animals, including rare birds, invertebrates, and reptiles. 2. Increase the presence of jack pine within the forested jack pine barrens community. 3. Provide habitat for late seral stage Northern Dry Forest wildlife species north of Clam Dam Road. 4. Protect, maintain, and increase barrens ground layer vegetation with specific emphasis on rare plants. 5. Increase connections between patches of barrens vegetation for habitat travel corridors.
<p style="text-align: center;">Appropriate Management Activities or Prescriptions</p>	<p>Open Oak Barrens Zone</p> <ol style="list-style-type: none"> 1. Actively manage the Open Oak Barrens Zone through prescribed burns, fire break construction, mowing, selective use of herbicides and planting of jack pine. 2. Relocate existing fire breaks to match the natural boundaries of the Kohler-Peet Swamp. <p>Forested Jack Pine Barrens Zone</p> <ol style="list-style-type: none"> 1. The Forested Jack Pine Barrens Zone will be managed using active management techniques which will be

	<p>implemented by following all DNR handbooks and guidelines.</p> <ol style="list-style-type: none"> When harvesting timber, implement larger clearcuts where possible, to mimic natural disturbance patterns. Use artificial regeneration techniques to maintain stands of jack pine, except for trenching, blade scarification, scalping (bracke, Leno, etc.), or broadcast herbicide applications, which are not allowed. Use artificial regeneration techniques to increase jack pine in stands dominated by oak and/or aspen, except for trenching, blade scarification, or broadcast herbicide applications, which are not allowed. When planting, allow variable densities and techniques to create patchiness of variable sizes that will complement new and existing openings. Determine timing of harvests in all timber types by evaluating structural attributes and density of ground flora at rotation age. The jack pine stands north of Clam Dam Road should generally be given longer rotations in order to provide habitat for late-seral stage Northern Dry Forest wildlife species. Prescribed fire may be used. Control invasive species using appropriate techniques including the use of herbicide.
Accomplishments 2015	Bud Capping – 49 acres of red and jack pine were bud capped in the fall of 2015. The objective was to protect seedlings susceptible to deer browse. Areas treated: plantations 6-13 and 1-08. STO# 1, 2

Land Management Areas

Habitat Management Area – Sterling Barrens

MASTER PLAN OBJECTIVES	<p>Long-Term Management Objectives (100 years) Oak savanna and jack pine barrens will continue to dominate this area, with barrens associated herbaceous ground flora well represented. The oak savanna will rotate between savanna and partial open canopy forest. A partial open canopy will provide rare species habitats and high quality natural community remnants. Diversity in tree density will provide forest products and critical habitat for savanna dependant wildlife, such as Wild Turkey and Red-headed Woodpecker. The jack pine barrens will rotate between open jack pine barrens and jack pine forest. A partial open canopy will provide rare species habitats and high quality natural community remnants. The jack pine forest will provide forest products and critical habitat for barrens dependant wildlife, such as Connecticut Warbler and Whip-poor-will. Opportunities for hunting, trapping, hiking, wildlife viewing and nature study will be available.</p> <p>Short-Term Management Objectives (50 years)</p> <ol style="list-style-type: none"> Maintain the oak savanna and jack pine barrens to provide wildlife habitat with a specific emphasis on rare birds, invertebrates, and reptiles. Develop a partial open canopy in the oak savanna and Jack Pine Barrens. Maintain the existence of barrens associated grass and forb species. Promote variable stocking rates. Promote large savanna legacy trees, focusing on bur oak and jack pine, to provide savanna structure, mast crops and seed trees. Reduce the presence of prickly ash. Increase the connection between patches of barrens vegetation for habitat travel corridors.
Appropriate Management Activities or Prescriptions	<p>Entire Management Area</p> <ol style="list-style-type: none"> Coordinate barrens management with Polk County Forestry and the National Park Service. Control invasive species across the habitat area through mowing, and hand spot treatments (mechanical or herbicide). <p>Oak Savanna Zone</p>

	<ol style="list-style-type: none"> 1. Actively manage the oak savanna zone through timber harvesting and prescribed burning. 2. Retain large oaks and pines to serve as savanna legacy trees. 3. Use prescribed burns and hand treatments to reduce prickly ash which will allow native savanna species to increase. 4. Allow the savanna to succeed to a partial open canopy forest before the next timber harvest and prescribed burn <p>Jack Pine Zone</p> <ol style="list-style-type: none"> 1. Actively manage the jack pine zone through timber harvesting. 2. Use only prescribed burning for site preparation in jack pine stands to encourage natural regeneration. If natural regeneration in jack pine stands is unsuccessful, hand plant or seed in jack pine. 3. Once regeneration goals are achieved, do not utilize prescribed burning until stand rotation.
Accomplishments 2015	Brush/Oak mowing was conducted in Compartment 6 Stands 6, 7, and 8. STO# 1, 2, 4, 6

Land Management Areas

Recreation Management Area – St. Croix Campground

MASTER PLAN OBJECTIVES	<p>Long-Term Management Objectives (100 years)</p> <p>The St. Croix Campground Recreation Management Area will continue to be an attractive setting for people to enjoy a variety of recreational opportunities, including camping, hunting, hiking, fishing, cross country skiing, snowshoeing, and wildlife viewing. Although managed for recreation, this area will occasionally produce forest products. The overall health and vigor of the forest and aesthetic appeal will be maintained and long-lived tree species will dominate. The future of oak and ash (swamp hardwood stands) in this area is uncertain due to the presence of oak wilt and the potential for Emerald Ash Borer and Gypsy Moth infestations. White pine will be the primary forest type on nearly half the acres in this area. The water quality and riparian habitat of the Wood River will be protected and maintained.</p> <p>Short-Term Management Objectives (50 years)</p> <ol style="list-style-type: none"> 1. Increase the age and presence of larger, longer-lived species such as white pine 2. Maintain the aesthetic appeal and high water quality in the Wood River Corridor and other wetlands in the area 3. Promote timber types, such as red and white pine, that are managed through thinning rather than regeneration harvests where possible.
Appropriate Management Activities or Prescriptions	<ol style="list-style-type: none"> 1. Passively manage the part of the area that lies south of the north bank escarpment of the Wood River. 2. Promote white pine and red pine where appropriate. Where feasible, use natural conversion to increase the presence of white pine where white pine is a secondary stand component. Efforts should focus on selective thinning.

	<ol style="list-style-type: none"> 3. In mixed stands with scattered pine, retain some large red and white pine legacy trees and employ silvicultural techniques that favor pine regeneration and improve structural diversity. 4. Modify timber sales to give special consideration to aesthetics, including irregular harvest areas, more restrictive slash requirements, and increased retention. 5. Conduct forest management activities in ways that minimize visual, noise, and access impacts to recreational users, such as conducting timber management during times of lowest visitor use. 6. Implement aesthetic management prescriptions consistent with the DNR Silviculture and Forest Aesthetics Handbook guidelines for a Class A Aesthetic Management Zone. 7. Conduct additional management activities as needed to support the use and purpose of the area, such as mowing, brushing and cutting. 8. When harvesting timber within view of the St. Croix River, design sales so that no management activity can be seen from the river during leaf on conditions. Use aesthetic management techniques for timber harvests that are visible from the rivers, flowages, and intensive recreational use areas such as reducing the size of cuts, establishing irregular harvest boundaries, conducting partial harvests, planting trees, favoring longer-lived species, and where necessary, harvesting during the winter. 9. Decrease the acreage of oak through natural or artificial regeneration techniques.
<p style="text-align: center;">Accomplishments 2015</p>	<p>No timber harvesting took place in the St. Croix Campground area, however we're are still dealing with the effects of the 2011 blow down event. Spring/Summer of 2015 forestry employees removed approximately 50 (500 yards) dump truck loads of stumps, tree tops and brush from the camping area. Disrupted sites were raked and replanted with grass seed. STO# 1, 2</p>

Land Management Areas

Recreation Management Area – Trade River Equestrian Campground and Day Use

<p style="text-align: center;">MASTER PLAN OBJECTIVES</p>	<p>Long And Short Term Management Objectives</p> <ol style="list-style-type: none"> 1. Maintain and enhance equestrian camping and day use opportunities. 2. Provide access to the Trade River Equestrian Trails. 3. Promote a naturally appearing, older forest that provides aesthetic appeal. 4. Protect, manage, and enhance the natural communities for ecological values and rare species habitat needs.
<p style="text-align: center;">Appropriate Management Activities or Prescriptions</p>	<ol style="list-style-type: none"> 1. Promote the growth and retention of large oak and pines. 2. Remove diseased and defective trees that are hazardous to staff or the public. 3. Conduct forest management activities in ways that minimize visual, noise, and access impacts to recreational users, such as conducting timber management during times of lowest visitor use. 4. Implement aesthetic management prescriptions consistent with the DNR Silviculture and Forest Aesthetics Handbook guidelines for a Class A Aesthetic Management Zone. 5. Control invasive species using appropriate techniques. 6. Conduct additional management activities as needed to support the use and purpose of the area, such as mowing, brushing and cutting.

Accomplishments 2015	Equestrian Campground, day use area and trails were frequently visited by state forest staff assuring facility and trails were prepared for users by mowing grass, cleaning rest rooms, clearing trails and removing hazard trees. State forest crew set up timber sale (tract #40-14) near black trail east of 300 th Ave. An aesthetic buffer was left 30 feet on either side of the horse trail. This sale sold in the spring of 2015. LTO/STO# 1, 2, 3, 4
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Recreation Management –
Non-motorized Trails

MASTER PLAN OBJECTIVES	<ol style="list-style-type: none"> 1. Sustainably accommodate diverse opportunities for nonmotorized trail recreation and public access to scenic resources and outdoor experiences while protecting natural resource quality. 2. Develop additional sustainable trails and amenities to accommodate need and to connect trails, facilities, and other public properties or destinations. 3. Provide barrier free ADA accessible trail opportunities where feasible and practicable. 4. Provide long-distance hiking opportunities via a trail links running the length of the GKSF. 5. Provide opportunities for bicycling based on demand and availability of sustainable routes. 6. Expand recreational opportunities by working with the National Park Service and other partners to establish trail connections to other trails and amenities or destinations off the GKSF. 7. Provide equestrian trails of diverse lengths, terrains and forest types that serve different rider's interests and abilities aligned with demand. 8. Avoid or minimize conflicts between equestrians, bikers, hikers, or other non-motorized and motorized users.
Management Activities, Prescriptions, and Accomplishments	<p>Equestrian Trails</p> <ol style="list-style-type: none"> a. Trade River Horse Trails System b. Maintain 40 miles of existing primitive to lightly developed trails for equestrian travel. <ul style="list-style-type: none"> • Accomplished 2015, maintained trails by mowing and removing hazard trees as needed. c. Evaluate the condition of existing equestrian trails and, as necessary; enhance or improve trail design, surface and maintenance to ensure sustainability, and ability to withstand heavy use. <ul style="list-style-type: none"> • Accomplished 2015, working with Tom Dettle to address erosion issues by creating new paths, similar to a switch back, in areas that are steep. Added materials to clay hill side for better suited for horse travel. Worked with friends group, through a trail grant they paid for resurfacing several high use trail sections near the day use parking area. d. Construct 2-4 day use/trail head parking areas within the Trade River Horse Trails system to improve public access and accommodate larger trucks and trailers. Install amenities – drinking water and single-unit, unisex vault toilet at 2 locations. <ul style="list-style-type: none"> • Expanded parking area at day use parking lot by removing dirt pile. e. Maintain bridges at Wolf Creek and Trade River to facilitate trail connections for equestrian and snowmobile travel <ul style="list-style-type: none"> • Accomplished in 2015, inspected and replaced board on bridge, need to replace all boards this summer. f. Install a water supply for horses and riders at several key locations within the horse trail system.

- **Received guidance from water resource personal explain how to build hand pump water station which would be non-potable. Friends group is interested paying for these water supplies.**
- g. Install informational/interpretive signage along existing equestrian trails with support from partners.
 - **Working with friends group and UW Extension on these display boards.**
- h. Work in cooperation with partners to support and maintain equestrian trails and amenities.
 - **Trail clean-up projects took place through friends group and adopt a trail members. Friends group volunteered by frequenting campground answering user questions**
- i. Establish a connecting trail system (to Sioux Portage Day Use / Equestrian Group Camp) in cooperation with Burnett County Forest
 - **No management activity in 2015**
- j. **Loop Horse Trails**
- k. Work in cooperation with the county at Pease Hill, Oak Ridge, and Sioux Portage Group camp locations to develop up to 18 additional miles of primitive to lightly developed loop trails on the north end of GKSF property.
 - **No management activity in 2015**
- l. Construct two 3-5 mile, primitive to lightly developed, loop trails in the Trade River Horse Trails system at Harris and Sterling / 320th Ave. locations.
 - **No management activity in 2015**
- m. Work in cooperation with the National Park Service at Sand Rock Cliffs to develop a 3-5 mile loop trail.
 - **No management activity in 2015**
- n. Construct one 3-5 mile, primitive to lightly developed, loop trail near the Trade River Group Equestrian Camp.
 - **No management activity in 2015**
- o. **Equestrian Wagon Trails**
- p. Designate and maintain up to 16 miles of equestrian trails as driving trails for horse-drawn buggies, carts and wagons as demand for this use continues. Trails will be designated or developed along new and existing corridors as part of the existing horse trail system. These trails will be developed and maintained as lightly developed trails.
 - **No management activity in 2015**

Hiking Trails

- q. **GKSF Linear Hiking Trail**
- r. Connect existing segments of hiking trail by constructing up to 18 miles of minimally developed primitive trail at key locations within the north and south trails system to complete the GKSF hiking trail the length of the forest, utilizing existing corridors where possible.
 - **No management activity in 2015**
- s. Construct /install a bridge at Benson Brook to facilitate trail connections
 - **Completed No additional management activity in 2015**
- t. Work with the National Park Service and other agencies or partners over time to connect GKSF hiking trails with the North Country Trail and Ice Age Trail.
 - **No management activity in 2015**
- u. **Loop Hiking Trails**
- v. Renovate 5-10 miles of existing primitive to lightly developed loop trails.

- **Widened Brandt Pines trails by removing stumps and mowing trails.**
- w. Create up to 10 miles of additional primitive to lightly developed loop trails by connecting with existing trails where practical, to expand hiking opportunities.
- **No management activity in 2015**
- x. **Interpretive (Nature) Trails**
- y. Maintain the existing 3 1/2 miles of primitive to lightly developed, interpretive trails and infrastructure.
 - **Accomplished in 2015, mowed trails, inspected signs and board walks, replaced as needed. Note: signs in poor shape and are outdated. Needs work or should be disassembled**
- z. Upgrade trails to enhance the interpretive hiking experience, including trail signage, informational kiosks and brochures and related amenities.
 - **working friends group & UW Extension creating new signs for horse trails.**
- aa. Develop up to 6 miles of additional primitive to lightly developed self-guided interpretive trails in conjunction with the State Natural Area program.
 - **No management activity in 2015**
- bb. Develop a 1-3 mile primitive to lightly developed interpretive trail with a “sustainable forestry” theme in association with Brandt Brook Pines interpretive trail, or in another suitable location, to demonstrate forest management practices. Install trail head information facilities and interpretive trail signage.
 - **No management activity in 2015, however working on similar project on horse trails.**

Cross-Country Skiing

- cc. Maintain 8 miles of existing lightly developed trail loops.
 - **In 2015 we widened 4 miles of trail to accommodate skate skiers, rebuilt boards walks to support new grooming equipment.**
- dd. Develop an additional 6 to 8 miles of lightly developed trail to be groomed for skate skiing north of the trail shelter beyond Foxes Landing. Designate appropriate alternate warm season trail uses such as hiking or biking. Install parking and a single-unit, unisex vault toilet at the main ski trail head.
 - **Accomplished 2014 widened 4 miles of trail to accommodate skate skiers, rebuilt boards walks to support new grooming equipment.**
- ee. Renovate the existing parking facility along Foxes Landing Road with information facilities and parking for up to 20 vehicles to accommodate skiers and other trail users throughout the year. Install amenities including information facilities and a toilet at Foxes Landing Road parking. Provide a drinking water source for warm season use.
 - **No management activity in 2015**

Snowshoeing

- ff. Designate up to 10 miles of primitive to lightly developed snowshoeing trails at several locations, to be determined, in the forest utilizing existing forest trails.
 - **Accomplished 2015, we compacted existing hiking trails at St. Croix Campground for snowshoeing**
- gg. Maintain winter use parking, and install trail confidence markers, maps, and trail head information facilities.
 - **Accomplished 2015, plowed parking lot compacted hiking trails at St. Croix Campground for snowshoeing**

Winter Walking Trails

- hh. Designate and maintain 4-6 miles of existing primitive to lightly developed trails for winter foot travel and pet friendly use that is separate from other winter recreational uses.
 - **Accomplished 2015, compacted snow on existing hiking trails at St. Croix Campground for snowshoeing and hiking**
- ii. Provide winter access /parking
 - **Accomplished 2015, plowed parking lot compacted hiking trails at St. Croix Campground for snowshoeing. Hwy 70 wayside was kept open for winter use as well. County plow truck plows area.**
- jj. Install informational signage and amenities as needed.
 - **Accomplished 2015, plowed parking lot compacted hiking trails at St. Croix Campground for snowshoeing and hiking, provided signage**

Bicycling

- kk. Identify, designate and construct 4 to 8 miles of primitive to lightly developed, one-way, single-track, off-road bicycle trails, separate from equestrian uses.
 - **Discussed internally. Currently look at possible locations to build trail.**
- ll. Construct a trail head /parking area to accommodate up to 10 vehicles and install information facilities, and a single unit, unisex vault toilet.
 - **No management activity in 2015**
- mm. Design any future trails to accommodate a range of skill levels while adapting to topography to maximize safety and limit soil impacts.
 - **No management activity in 2015**
- nn. Work with local partners and consider International Mountain Bike Association techniques and assistance to plan trail development.
 - **No management activity in 2015, however have been talking to Cyclova in St. Croix Fall to get their opinion on possible bike use.**
- oo. Identify trails or road routes suitable for road bicycles and, as appropriate, designate those routes.
 - **In discussion, winter as we are opening the north hiking trails for bikes (except on NPS property).**

ADA Accessible – Barrier-free Trails

- pp. Develop up to 3 miles of barrier free, moderately developed, ADA Accessible trail surfaced to accommodate wheel chairs and walkers in a location to be determined, to provide access to scenic viewsheds. The trail may be a portion or portions of established recreation trails.
 - **No management activity in 2015,**
- qq. Work with NPS to develop accessible paths to the Highway 70 wayside at the St. Croix River.
 - **No management activity in 2015**

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Recreation Management

Motorized Trails

MASTER PLAN OBJECTIVES	<ol style="list-style-type: none"> 1. Meet Department trail standards to provide a safe and sustainable trail system for snowmobile and winter ATV use. 2. Maintain connectivity between local and regional trail networks.
Management Activities, Prescriptions, and Accomplishments	<p>Snowmobiles</p> <ol style="list-style-type: none"> 1. Maintain up to 32 miles of lightly developed, sustainable, multi-use, winter Snowmobile /ATV travel routes on designated forest trails. <ul style="list-style-type: none"> • Accomplished in 2015, grooming contracts with Burnett & Polk County snowmobile Clubs, mowed & cleared trails prior to season start 2. Construct up to 3 miles of lightly developed trail to reroute a portion of snowmobile/equestrian/hike trail for safety, and due to land ownership changes <ul style="list-style-type: none"> • No management activity in 2015 <p>Work in partnership with landowners and snowmobile clubs to support land use agreements to maintain the snowmobile trail corridor, connections and crossings.</p> <ul style="list-style-type: none"> • Accomplished in 2015, working with John McNally on use agreement consistency. <p>All-Terrain Vehicles (ATVs)</p> <ol style="list-style-type: none"> 1. Maintain 32 miles of lightly developed, sustainable, multiuse, winter ATV travel routes on designated forest trails. These designated trails will be signed, indicating whether they are open or closed. 2. Base timing of trail open or closed use on seasonal trail conditions. <ul style="list-style-type: none"> • Accomplished in 2015, grooming contracts with Burnett & Polk County Snowmobile Clubs. Ordering signs for better marking. 3. GKSF will Consider future establishment of a 1-mile, sustainable ATV trail connection through a portion of state forest, near the Clam Flowage, if the connection becomes critical to public safety, or to the ecological, social and economic sustainability of the regional ATV trail network. <ul style="list-style-type: none"> • <i>The purpose of the trail would be to provide “pass through trail use” to link two extensive segments of the Burnett County Forest lands currently open for seasonal use (mid-September through mid- November).</i> • No management activity in 2015 4. If the North River Road ATV route should be closed in the future and the connection becomes critical to public safety, or to the ecological, social and economic sustainability of the regional ATV trail network, GKSF will consider establishing a ½ mile, sustainable ATV trail connection through a portion of state forest, east of the group camp as an alternative route.

	<ul style="list-style-type: none"> • Presently, a ½ mile segment of North River Road has been designated as an ATV route to link two extensive segments of the Burnett County Forest lands. If North River Road use were to be closed to ATV's in the future, the State Forest link could become essential to link two segments of the Burnett County Forest lands currently open for seasonal use (mid-September through mid-November), similar to the Clam Flowage link. • The two links listed above are existing Burnett County Snowmobile trail through a Trail Use Agreement with the GKSF. Upgrading of the links to make them ATV sustainable may be needed. Any future development would be in cooperation with Burnett County, and as a last resort alternative. If sustainable trail specifications can be met, routes would follow existing Snowmobile/winter ATV trail wherever possible, and conform to specifications regarding trail opening and closing dates in conjunction with the County. • No management activity in 2015
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Recreation Management
Camping and Day Use

<p>MASTER PLAN OBJECTIVES</p>	<ol style="list-style-type: none"> 1. Provide diverse opportunities for high quality camping experiences in attractive, natural settings. 2. Maintain and support opportunities for: equestrian camping, family camping, outdoor group camping, primitive backpack camping, remote permit camping. 3. Develop, enhance or upgrade camping facilities to accommodate use and demand as appropriate to land management classifications, recreation settings and forest policies. 4. Provide barrier-free opportunities for disabled persons to enjoy the forest. 5. Work in partnership with equestrian friends groups and other interested volunteer partners to enhance future state forest facilities.
<p>Management Activities, Prescriptions, and Accomplishments</p>	<p>Equestrian Camping</p> <ol style="list-style-type: none"> 1. As resources are available install electric service at up to 26 of the existing campsites. <ul style="list-style-type: none"> • Phase 1 was complete, 8 sites have electric. 2. Designate up to 35% of the campsites as reservable and place on the statewide campsite reservation system <ul style="list-style-type: none"> • paper work submitted, will be ready for 2016 camping season 3. If demand continues to increase after development of an Equestrian Group Camp, develop up to 20 additional non-electric equestrian campsites near the present campground to accommodate overflow camping at peak times. <ul style="list-style-type: none"> • No management activity in 2015 4. Install additional parking and amenities to include tables, fire rings, toilets, manure bunkers and tie systems, information facilities, pressurized water supply, and a shower building. <ul style="list-style-type: none"> • No progress made in 2015 <p>Trade River Equestrian Group Camp – Modern</p> <ol style="list-style-type: none"> 1. Construct a modern group horse camp at a location close to the Trade River Equestrian Trails to accommodate up to 30 camping units, to be occupied on a reservation / fee basis. Amenities would include parking for up to 30

**Management Activities,
Prescriptions, and
Accomplishments -
continued**

vehicles, tables and shelter, 2 accessible sites, group fire ring and benches, vault toilets, picnic shelter, manure bunkers and tie lines, information facilities, a pressurized water supply system, and a shower building.

- **No management activity in 2015**

St. Croix Family Campground – Modern

1. As resources are available install electric service at up to 12 of the campsites.
 - **Capital Development Project was approved, waiting on engineer**
2. Designate up to 50% of the campsites as reservable on the statewide campsite reservation system.
 - **paper work submitted, will take place in 2016**
3. Construct a small, approx. 3,000-6,000 sq. ft., open “free play area” (green space) near the campground for child and family recreation.
 - **No management activity in 2015**
4. Construct 2-6 walk-in campsites, each to include parking, walk-in access trail, tent pad, fire ring and table to accommodate a family, or a group of up to 6 people.
 - **Added 5 backpack sites on hiking trails including 2 on the Wood River.**
5. Install a pressurized water supply, and a shower facility.
 - **No management activity in 2015**

St. Croix Outdoor Small-Group Camp – Rustic

1. Add a small, reservable group campsite near the St. Croix Campground to accommodate up to 30 campers. Amenities will include drinking water, 2 accessible campsites, toilets, a central gathering area with a group fire ring and benches, tables, a picnic shelter, and parking for up to 8 vehicles. Allow restricted vehicular access to the camp.
 - **No management activity in 2015**

Clam Flowage Outdoor Group Camp – Rustic

1. Construct a new reservable, rustic, outdoor group camp on the banks of the Clam Flowage, with access to the flowage, to accommodate up to 60 campers, to be occupied on a reservable, fee basis. Amenities will include drinking water, vault toilets, two accessible sites, a central gathering area with group fire ring, tables, a picnic shelter, and parking for up to 15 vehicles. Allow restricted vehicular access to the camp.
 - **Discussions with architectural engineer to start plans.**
2. Develop water access, a canoe launch and fishing pier at the Clam Flowage.
 - **No management activity in 2015**

Sioux Portage Outdoor Group Camp – Conversion to a Rustic Equestrian Day Use Area

1. Convert the existing Sioux Portage Outdoor Group Camp to an Equestrian Day Use Area (See Day Use Areas).
 - **No management activity in 2015**
2. A new Outdoor Group Camp (non-equestrian) is planned at the Clam Flowage (See Clam Flowage Outdoor Group Camp).

- **Discussions taken place with architectural engineer to start plans.**

Backpack Camping – primitive

1. Continue to provide minimally developed single-unit campsites that are primitive, remote and widely separated, minimally cleared, and with a native or primitive soil surface per NR44 standards.
 - **Accomplished in 2015, added 5 sites relocated other 3 sites.**
2. Designate and develop 4-6 additional dispersed, single unit, primitive backpack campsites to accommodate hikers as trail segments are connected to complete the GKSF linear hiking trail. Camper capacity at each site will be one family or a group of up to 6 people. Amenities may include a box latrine, picnic table and fire ring at each location.
 - **Accomplished in 2015, added 5 sites relocated other 3 sites**
3. Move or locate some campsites to provide trail access to water resources.
 - **Accomplished in 2015, added 5 sites relocated other 3 sites**
4. Install information facilities at trail head parking areas. Install signage and confidence markers as the trail system develops and connects.
 - **Added signage to several trails, including mile markers along hiking trails.**
5. Continue to work in partnership with the National Park Service to provide opportunity for backpackers to access the river, scenic locations and other camping options.
 - **Accomplished in 2015, maintained hiking trails that parallels the St. Croix River**

Trade River Day Use Area – Rustic

1. Install picnic shelter, manure bunkers, additional mounting blocks and ADA compliant mounting ramps, and information facilities.
 - **No management activity in 2015**

Highway 70 Wayside – Rustic

1. Pave the south lot and approaches to the toilet buildings.
 - **No management activity in 2015**
2. Install a picnic shelter.
 - **No management activity in 2015**
3. Work with NPS to construct accessible paths from the parking area to the St. Croix River.
 - **No management activity in 2015**

Real Estate Management

<p>MASTER PLAN OBJECTIVES</p>	<p>The master plan describes goals, policies and actions for the following real estate activities in Chapter 2, pages 103 to 108</p> <ol style="list-style-type: none"> 1. Boundary Expansion Areas 2. Boundary Expansion Considerations 3. Real Estate Acquisition Policies 4. Aides In Lieu Of Taxes 5. Easements, Access Permits, And Land Use Agreements 6. Future Boundary Adjustment Process
<p>Accomplishments 2015</p>	<p>Gave input on Glacial Lake Master Plan, approved in 2016. Boundary and land exchange took place. 708 to GKSF 968 to Crex</p>

Wildlife Management Plan

<p>MASTER PLAN OBJECTIVES</p>	<p>The wildlife management program on the Governor Knowles State Forest focuses on maintaining and enhancing habitat and assessing the population status of important common, keystone, threatened, endangered, special concern, and Species of Greatest Conservation Need (SGCN).</p>
<p>Appropriate Management Activities and Prescriptions</p>	<ol style="list-style-type: none"> 1. Barrens habitat will be provided throughout the forest through standard forest management practices and within two barrens habitat management areas. 2. All streams will be managed to protect water quality, maintain wildlife and fisheries habitat, and enhance aesthetics. 3. Populations of important game species will be monitored through annual surveys at the local or regional level. Species surveyed include white-tailed deer, black bear, furbearers, waterfowl, Ruffed Grouse, Wild Turkey and Woodcock.
<p>Accomplishments</p>	<p>Worked with wildlife staff on state forest and wildlife properties by participating in summer deer observations, duck banding and wolf track surveys. Discussed with wildlife staff possible land management prescription's for barrens management areas. Through timber harvest created 100's of acres of early successional habitat that would benefit many different wildlife species. BMP's were used on land management activities near wetlands and streams in order to avoid unfavorable impacts to those habitats. Started mowing Sterling Barrens unit.</p>

Fisheries Management Plan

<p>MASTER PLAN OBJECTIVES</p>	<p>Water resources within the Governor Knowles State Forest provide habitat for a range of fish communities. Management goals and activities for these waters vary by type of water and angling potential. The main water resources within the forest are warm water and cold water streams.</p>
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	<p>Warm Water Streams</p> <ol style="list-style-type: none"> 1. Maintain the health of waters on the Governor Knowles State Forest and their fishery potential. 2. Provide quality harvest as well as trophy opportunities (where applicable). 3. Allow adequate aquatic organism passage at trail and road crossings. <p>Cold Water Streams</p> <ol style="list-style-type: none"> 1. Maintain and enhance self-sustaining trout fisheries. 2. Improve the food supply, provide cover, and improve spawning substrates. 3. Provide quality harvest opportunities. 4. Allow adequate aquatic organism passage at trail and road crossings.
Management Activities, Prescriptions, and Accomplishments	<p>Warm Water Streams</p> <ol style="list-style-type: none"> 1. Continue to conduct electrofishing and netting surveys according to statewide monitoring protocols and provide results to public. 2. Conduct beaver control as necessary by limiting dams that slow water flow, impede fish migration, and increase water temperatures and sedimentation. <p>Cold Water Streams</p> <ol style="list-style-type: none"> 1. Continue to conduct electrofishing and netting surveys according to statewide monitoring protocols and provide results to public. 2. Conduct beaver control as necessary by limiting dams that slow water flow, impede fish migration, and increase water temperatures and sedimentation. 3. Continue stocking the Wolf Creek with feral brown trout.
Accomplishments	Worked with fisheries program to properly clear a portion of the Wolf Creek to make the river more accessible for fishermen and for fish surveys. Assisted fisheries crew writing project for stream improvement.

Road Management

MASTER PLAN OBJECTIVES	There are several types of road classifications outlined in NR 44.07(3). The classifications reflect a range of development and maintenance standards. Road classifications include primitive, lightly developed, moderately developed, and fully developed. The Governor Knowles State Forest is responsible for the maintenance of all state forest roads with more attention given to roads open for public vehicles.
Accomplishments	Anderson Township received the money to resurface a portion of West River Road, no work has taken place. Several light maintenance issues were addressed on access trails throughout the forest using forestry dozers and on-site materials. Due to road condition after logging operation, Oak Hills forest road was resurfaced with pit run from local gravel pit. There are two cabins on this road, prior to road project access was questionable. Road can now be accessed by emergency vehicles and members of the public. All roads within forest are being evaluated for motorized access.

