

**Wisconsin Department of Natural Resources  
Monitoring the Implementation of Property Master Plans**

Property or Properties: Mirror Lake State Park

Year Master Plan was Approved: 2003

**Property-wide**

<p><b>MASTER PLAN OBJECTIVES</b></p> <p>Real Estate Mtg.</p>	<p><b>Recent Park Land Acquisitions / Transactions</b></p> <ul style="list-style-type: none"> <li>Acquire acreage within the expanded project boundary totaling 446 acres.</li> </ul>
<p><b>Accomplishments 2011</b></p>	<p><i>We have identified and ranked potential land acquisition sites. Over the last year we have attempted to purchase two properties, one with the assistance of DOT, but were unsuccessful.</i></p>

**Property-wide**

<p><b>MASTER PLAN OBJECTIVES</b></p> <p>General Mtg.</p>	<ul style="list-style-type: none"> <li>Development of new trails will consist of contour trails rolling, turning, and dipping along slopes—versus straight up and down—with a maximum average grade of 10%. The trails will wind around existing native trees as feasible. The trail grade itself will always be less than half of the side slope grade and located on the uphill side of existing trees to prevent erosion and excessive tree root damage.</li> <li>Monitor trails for excessive impacts from use. Potential evidence of impacts would be trail widening, excessive trash, and/or damage to adjacent plant communities. Upon determination of excessive damage, the property manager is authorized to close trails or trail sections and relocate eroding trails to more appropriate sites.</li> <li>Trails will need to be closed in specific sections while timber harvests are taking place.</li> </ul>
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	<ul style="list-style-type: none"> <li>• Following timber harvest activities in the vicinity of trails, slash will be scattered to near the ground level to minimize visual impacts to recreational users.</li> <li>• Continue to monitor for forest pests, such as gypsy moths, and permit the Department of Agriculture to spray selected areas for these pests.</li> <li>• Remove invasive exotic species by cutting, hand pulling, and/or herbicide application.</li> </ul>
<p align="center"><b>Accomplishments 2011</b></p>	<p><i>Our latest trail addition is the new Ishnala Trail. The past 2 years has brought a couple of erosion issues which have been corrected. The trail is a 2.2mile trail that takes hikers and skiers through prairies, hills, forest and the Mirror Lake Gorge.</i></p> <p><i>We have a timber sale planned for the late fall of 2012. This is a planned thinning of the forest through the Hastings Trail area. DNR Foresters in Sauk County have done the planning and bidding process, which started in 2011 and also includes invasive species removal.</i></p> <p><i>Staff, volunteers and hired contractors continue to fight against invasive species throughout the park which include garlic mustard, wild parsnip, honeysuckle, buckthorn and more. Efforts include cutting, mowing and pulling by hand and machine and/or herbicide application.</i></p>

**Recreation Management Area**

<p align="center"><b>MASTER PLAN OBJECTIVES</b></p> <p align="center">General Mtg.</p>	<p><u>Camping</u></p> <ul style="list-style-type: none"> <li>• Provide and expand modern,8 rustic,9 and special camping opportunities without losing the quiet, green, natural camping experience currently possible within Mirror Lake State Park. Improve camping quality by increasing privacy through increased campsite separation distances and vegetation screening. Meet state requirements for electric and rustic campsite development.</li> </ul> <p><u>Trails</u></p> <ul style="list-style-type: none"> <li>• Maintain approximately 11.8 miles of new and existing hiking/skiing and/or hiking/snowshoeing trails.</li> <li>• Maintain approximately 1.2 miles of nature trail including creation of an additional, ½-mile moderately developed11 trail length to the Nature Trail north of the Ishnala Loop that provides for foot travel only.</li> <li>• Create approximately 3.5 miles of additional primitive and lightly developed12 cross-country ski and hiking trails as well as a pedestrian bridge, on the far north corner of the property close to and connecting the Cliffwood campground to the new addition to the east, a winter warming cabin, and the Ishnala restaurant.</li> </ul> <p><u>Day Use Facilities</u></p> <ul style="list-style-type: none"> <li>• Maintain high-quality visitor support facilities while preserving the natural character of the park. Expand support facilities for summer and winter activities to better accommodate visitor needs. Provide opportunities for indoor group activities. Continue concessions and expand as feasible to meet visitor demand. Increase opportunities for environmental education within the park.</li> </ul>
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	<p><u>Vegetation Management</u></p> <ul style="list-style-type: none"> <li>• Manage for young and vigorously growing trees within the campground. Old growth trees may be retained as long as these trees are outside the crown height of intensive use areas, park structures, and main roads. Replace trees and shrubs lost to deer browse in intensive use areas. Manage hazardous trees with associated selective tree timber sales as is helpful for campgrounds, roadways, and day-use areas. Promote native vegetative growth throughout all unpaved or graveled areas. As feasible, establish and mow native shortgrass turf in picnic areas.</li> </ul> <p><u>Management of Mirror Lake</u></p> <ul style="list-style-type: none"> <li>• Remove non-natural debris from the bed of Mirror Lake on areas of state ownership, including abandoned duck hunting blinds and former docks, piers, and containment walls left over from old cabin sites.</li> <li>• Support the local “slow-no wake” ordinance.</li> <li>• Continue Department cooperation with the study being conducted by the Mirror Lake Association concerning dredging of selected areas of the lake to improve navigation.</li> <li>• Conduct tree and vegetation removal and limited shallow dredging, if necessary, to maintain navigation.</li> <li>• Cooperate with and support local partnerships for the containment and removal of duckweed and associated submerged aquatic vegetation that impairs recreational activities.</li> <li>• Control rough fish populations, especially carp, with methods such as partial chemical treatment.</li> <li>• Work with the Mirror Lake Association and Sauk County to utilize partial drawdowns to enhance predation and fishing regulations to maintain predator density.</li> <li>• Stock walleye, channel catfish, smallmouth bass, and other predator species to maintain a diverse fishery and to provide opportunities for anglers.</li> <li>• Manage to favor native aquatic plant species and limit exotic nuisance vegetation by utilizing techniques such as herbicide application, cutting, and plantings to improve aquatic habitat.</li> </ul>
<p style="text-align: center;"><b>Accomplishments 2011</b></p>	<p><u>Camping</u> <i>During 2011 we did not add any additional campgrounds or sites. In 2006 we upgraded electrical service to some sites and added additional electrical sites.</i></p> <p><u>Trails</u></p> <ol style="list-style-type: none"> <li>1. Completed</li> <li>2. Maintenance complete.</li> <li>3. <i>In 2008 the new Ishnala Trail and footbridge project construction got underway. We completed the project which included 2.3mile hiking and cross-country ski trail, the 155-ft foot bridge across the Mirror Lake gorge, a paved accessible trail from the Echo Rock Trail to the Ishnala Restaurant. Due to project costs we were not able to complete the renovation of the cabin. Future project plans are being made.</i></li> </ol> <p><u>Day Use Facilities</u></p> <ol style="list-style-type: none"> <li>1. Completed.</li> </ol>

	<p><u>Vegetation Management – Completed</u></p> <p><u>Management of Mirror Lake</u></p> <ol style="list-style-type: none"> <li>1. Completed</li> <li>2. Completed</li> <li>3. Completed – No dredging was completed in 2011</li> <li>4. Completed with the Mirror Lake Association</li> <li>5. Completed</li> <li>6. No Chemical treatment for carp control this year.</li> <li>7. No drawdowns were needed in 2011</li> <li>8. No fish were stocked into Mirror Lake this year.</li> <li>9. The Mirror Lake Association and the Mirror Lake Lake District cut vegetation on Mirror Lake to help with control efforts.</li> </ol>
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**Scenic Resources Management Area – Scenic Easement Area**

<p><b>MASTER PLAN OBJECTIVES</b></p> <p>General Mtg.</p>	<p>Maintain or enhance the natural-appearing shoreline. This will be done by working with cooperating private landowners to obtain scenic easements. These easements may include purchasing building rights and maintaining or improving vegetation screening. These easements may also include purchasing rights to limit additional building or expansion of existing structures. Easements will be monitored to assure compliance.</p>
<p><b>Accomplishments 2011</b></p>	<p><i>Monitored current easements.</i></p>

**Scenic Resources Management Area – Bluff/Canyon Areas**

<p><b>MASTER PLAN OBJECTIVES</b></p>	<ul style="list-style-type: none"> <li>• A less-than-1-mile, lightly developed hiking trail would follow an existing maintenance road that parallels the Fern Dell Gorge.</li> <li>• Monitor the trail and any site activity for unacceptable resource damage. In instances where damage is apparent, explore options of more resource-protective design elements, such as boardwalks and boardwalks with railings, stairs, and/or viewing decks.</li> </ul>
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<p>General Mtg.</p>	<ul style="list-style-type: none"> <li>• Portions of trails may be relocated as necessary to more environmentally acceptable locations.</li> <li>• Close narrow strips of cliff edge to all public uses, including hunting, hiking, cliff-diving, and any climbing activities. Portions or sections of trails may also be closed if warranted for reasons such as adjacent erosion, compaction, wear, and/or damage to plant/animal habitats.</li> <li>• Restore damage from volunteer trails. Limit restoration activities to the minimal amount necessary to protect sensitive habitats from public use.</li> <li>• Scenic vistas that permit viewing will be located where appropriate along bluffs, while protecting the geologic features (outside of the State Natural Area or with BER approval).</li> <li>• Provide interpretive signage along the trails in this management area, and appropriately sign sensitive areas as well as all entry points.</li> <li>• Close the Native American garden beds in this management area to public access.</li> </ul>
<p><b>Accomplishments 2011</b></p>	<p><i>Objective 1. No Action Taken.</i>  <i>Objective 2. Monitor existing trails in this area for resource damage. Some erosion repairs were completed on the Ishnala Trail.</i>  <i>Objective 3. No trails in need of relocation.</i>  <i>Objective 4. No new cliff areas closed in.</i>  <i>Objective 5. No Action</i>  <i>Objective 6. No Action.</i>  <i>Objective 7. No Action.</i>  <i>Objective 8. Native American Garden Beds location is difficult to identify and sought out by the public. No Action.</i></p>

**Native Community Management Areas: Northwest Pine-Oak Forest Unit and Northwest Forest Unit**

<p><b>MASTER PLAN OBJECTIVES</b></p> <p>General Mtg.</p>	<p><u>Vegetation Management</u></p> <p><i>Northwest Pine-Oak Forest Natural Area West</i></p> <ul style="list-style-type: none"> <li>• Conduct small patch (8-12 acres) harvests in the jack pine area to regenerate the jack pine.</li> <li>• Conduct 3 harvests in the mixed jack pine/black oak area of 15-20 acres each followed by site preparation fires over the course of the next 100 years.</li> <li>• The oak forest will be managed with low-intensity (cool temperature, high humidity) ground fires with an average interval of 10-15 years between fires.</li> <li>• The existing red pine plantations in the northern portion of the unit will be thinned to develop large red pines with many oaks in the understory.</li> </ul> <p><i>Northwest Pine-Oak Forest Natural Area East</i></p> <ul style="list-style-type: none"> <li>• Establish and design selective cutting of shade-tolerant species to maintain or enhance mixed pineoak forest (white pine, red pine).</li> <li>• Use low-intensity ground fires to favor oak.</li> </ul> <p><i>Northwest Forest Area</i></p>
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	<ul style="list-style-type: none"> <li>• Evaluate the removal of Lake View Road if this road is no longer needed for access in the future and the Town of Delton wishes to abandon it. Restore the roadbed to native vegetation if the road is removed.</li> <li>• Convert pine plantations to a mixed forest, such as oak and pine. Implement cutting practices to eliminate the row-and-block effect of pine plantations, and allow regeneration of native understory shrub, perennial, forb, and tree species.</li> <li>• Maintain current species composition by using small patch harvest or select cutting of individual trees. Management intensity will be similar but more frequent with 4-5 harvests over the course of the next 60-80 years for jack pine and 120 –140 years for the black oak and red oak forest.</li> </ul> <p><u>Recreation Management</u></p> <ul style="list-style-type: none"> <li>• Trails may be developed only after the parking lot is completed.</li> <li>• If the Town of Delton decides to sell to the Department the Town Park and boat landing located on Lake View Road, the Department will evaluate at that time whether to upgrade the facilities and landing or restore the area to blend in with its surroundings.</li> <li>• Development of the new primitive trails will consist of contour trails rolling, turning, and dipping along slopes—versus straight up and down—with a maximum average grade of 10%. Trails will generally have a tread width of no more than 24". The trail will wind around existing native trees of more than 1" caliper. The trail grade itself will always be less than half of the side slope grade and located on the uphill side of existing trees to prevent erosion and excessive tree root damage.</li> </ul>
<p style="text-align: center;"><b>Accomplishments 2011</b></p>	<p><i>Vegetation Management</i></p> <p><i>Northwest Pine-Oak Forest Natural Area West</i></p> <p><i>Objective 1. No Action.</i></p> <p><i>Objective 2. No Action.</i></p> <p><i>Objective 3. Along with the State Natural Crew, a prescribed burn was conducted on a portion of this Natural Area in the Fall of 2010. More are planned with burn plans completed.</i></p> <p><i>Objective 4. No Action.</i></p> <p><i>Natural Area East</i></p> <p><i>Objective 1. No Action.</i></p> <p><i>Objective 2. No Action.</i></p> <p><i>Northwest Forest Area</i></p> <p><i>Objective 1. Town of Delton has no intentions of abandoning Lake View Road at this time.</i></p> <p><i>Objective 2. No Action.</i></p> <p><i>Objective 3. No Action.</i></p> <p><i>Recreation Management</i></p> <p><i>Objective 1. No Action.</i></p> <p><i>Objective 2. Town of Delton maintains ownership of the Town Park Boat Landing and at this time is not interested in selling.</i></p> <p><i>Objective 3. No Action.</i></p>

## Native Community Management Area - Lower Backlands-Grasslands Unit

<p><b>MASTER PLAN OBJECTIVES</b></p> <p>General Mtg.</p>	<p><u>Vegetation Management</u></p> <p><i>Prairie/Savanna</i></p> <ul style="list-style-type: none"> <li>• Expand the existing prairie by cutting adjacent brush in a 20-30 yard perimeter annually. Drag this downed vegetation under standing vegetation to decompose and recycle back into the environment. Utilize prescribed burns to promote prairie (opening) restoration.</li> </ul> <p><i>Forest</i></p> <ul style="list-style-type: none"> <li>• Maintain a mixed forest composed primarily of oak and pine with small areas of mixed aspen and other early-successional species.</li> <li>• In the areas with early-successional species such as aspen, jack pine, and scrub oak, promote regeneration of the oak/aspen stands in limited pockets to benefit songbird species such as the Eastern Towhee, Brown Thresher, and Blue-winged Warbler.</li> <li>• In areas of solid stands of older growth species, promote retention of these oaks, red pines, white pines, and hemlocks.</li> <li>• Manage approximately 90 acres of existing pine plantations, using the principles of big tree silviculture, to produce more natural-appearing conditions while allowing for the possible long-term conversion of these areas to oak and white pine communities.</li> </ul> <p><i>Sharecropping Areas</i></p> <ul style="list-style-type: none"> <li>• Restore sharecropped lands to native prairies, savannas, and oak communities when agreements are phased out.</li> </ul> <p><u>Recreation Management</u></p> <ul style="list-style-type: none"> <li>• Trail signage will be augmented with location maps at trail/road intersections coded to colored markers.</li> <li>• Periodic impact assessments will be done and may recommend a reduction or change in use to prevent damage to the area's resources (e.g., soil erosion, the spread of invasive and/or exotic plant species, etc.)</li> <li>• Trail sections that require continual maintenance will be relocated to an alignment that goes along— instead of perpendicular to—the area's contours.</li> <li>• Maintain trail surfaces with native soils and plants. Relocate an eroding trail to a less sloping site if trail stabilization methods are discussed.</li> <li>• The Ice Age Trail would connect to existing park trail systems. The National Park Service will classify the trail section as "semi-primitive ROS Class," which correlates to the Department's "lightly developed" classification.</li> </ul>
<p><b>Accomplishments 2011</b></p>	<p><i>Vegetation Management</i></p> <p><i>Prairie/Savanna</i></p> <p><i>Objective 1. Project is in maintenance mode. Adjacent woody vegetation consisting of mainly jack pine is cut annually. Prairie seed continues to be added to the area with good results.</i></p> <p><i>Forest</i></p> <p><i>Objective 1. Completed</i></p> <p><i>Objective 2. Completed</i></p>

	<p>Objective 3. No Action.  Objective 4. No Action.  Sharecropping  Objective 1. Completed  Recreation Management  Objective 1. Location maps and color coded markers purchased in 2009. Trail intersection maps are in place. All trails have new color coded post along the trail except Hastings and Ishnala where trail work and timber sale are to be completed over the next year.  Objective 2. Designated use inspections completed in 2011. No use change recommended.  Objective 3. No trail relocation recommended at this time.  Objective 4. Completed.  Objective 5. No Action.</p>
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**Special Management Area - Seth Peterson Cottage**

<p><b>MASTER PLAN OBJECTIVES</b></p> <p>General Mtg.</p>	<ul style="list-style-type: none"> <li>• Maintain the buildings and grounds of this historic and culturally significant property.</li> <li>• Conduct overnight rentals of this property as a funding source for the preservation of the building.</li> <li>• Conduct routine grounds and building maintenance.</li> <li>• Conduct inspections for invasive plants and hazardous trees.</li> <li>• Remove undesired plants/trees.</li> <li>• Promote public interpretation of the building through monthly tours and special events. Under standing vegetation to decompose and recycle back into the</li> </ul>
<p><b>Accomplishments 2011</b></p>	<p>Objective 1. Completed.  Objective 2. Cottage is available for rent and has a rental rate of close to 100%. Funding is utilized for repairs and operations. Managed by the Seth Peterson Cottage Conservancy.  Objective 3. Work week held in April of 2011. Hazard trees and invasive species removed.  Objective 4 and 5. During the 2011 April Work Week damaged/hazardous trees were removed. This included about a dozen.  One small area approximately 10'x10' in size of prickly ash was cut and treated, along with several areas of honey suckle.  Objective 6. Monthly tours held every second Sunday of the month throughout 2011.</p>

**Special Management Area - State Nursery Tree Seed Production Area**

<p style="text-align: center;"><b>MASTER PLAN OBJECTIVES</b></p> <p style="text-align: center;">General Mtg.</p>	<ul style="list-style-type: none"> <li>• Protect the trees by controlling grass competition, using mowing and/or herbicide. Protect trees from deer and other possible environmental factors that may significantly delay establishment.</li> <li>• Prune trees to allow clearance for equipment.</li> <li>• Graft trees with improved genetics, if they become available and the Department agrees that the effects would be beneficial.</li> <li>• Plant trees with wide spacing, generally 10' x 10' to 15' x 15', with thinning or roughing in the future.</li> <li>• Trees will be planted and managed for wide, open crowns to maximize seed production sites on tree branches.</li> <li>• Trees that need to have seed collected off the limbs, such as maples and ashes, will be crown-pruned to maintain a shorter tree and maximize seed accessibility. Other species, such as oak, will be managed by technical staff as appropriate to allow growth to normal heights.</li> </ul>
<p style="text-align: center;"><b>Accomplishments 2011</b></p>	<p><i>Objective 1. Complete. Despite efforts to protect trees from deer tree plantings suffered high mortality rates due to deer browsing.</i></p> <p><i>Objective 2. Completed</i></p> <p><i>Objective 3. No Action.</i></p> <p><i>Objective 4. Completed</i></p> <p><i>Objective 5. Completed</i></p> <p><i>Objective 6. No Action.</i></p>

**Special Management Area - Park Entrance and Visitor Station (PEVS)**

<p style="text-align: center;"><b>MASTER PLAN OBJECTIVES</b></p> <p style="text-align: center;">General Mtg.</p>	<ul style="list-style-type: none"> <li>• Establish approximately 5 acres of prairie and/or oak savanna plant communities surrounding the building for visitor interpretive programs. The programs will focus on native prairie/savanna plants and the ecological benefits they provide when used in other building or residential settings.</li> <li>• Maintain the PEVS to provide park offices, a visitor service area, park information, and local area services.</li> <li>• Establish and conduct interpretation/education programs in the building and at a kiosk in conjunction with and related to the site, region, Seth Peterson Conservancy, and the Ho-Chunk nation. When the new nature center is developed, these programs will be phased into the new building.</li> </ul>
<p style="text-align: center;"><b>Accomplishments 2011</b></p>	<p><i>Objective 1. Remove non-prairie species, such as honey suckle, prickly ash, jack pine and buck thorn from area surrounding the building. Removal process included volunteers and education on plant identification and negative impacts these plants have on other native plants.</i></p> <p><i>Objective 2. Completed</i></p> <p><i>Objective 3. PEVS contains displays provided by both the Seth Peterson Cottage Conservancy and Ho-Chunk Nation. PEVS was utilized for educational programs during inclement weather.</i></p>

**Special Management Area - Former Dredge Spoils Dike and Spoils Storage Area**

<p><b>MASTER PLAN OBJECTIVES</b></p> <p>General Mtg.</p>	<p>The Department will continue to use the soils from the former dredge spoils dike and spoils storage area as a source of humus for park turf maintenance.</p>
<p><b>Accomplishments 2011</b></p>	<p><i>Former spoils have been depleted and site was leveled and seeded to native prairie in 2009.</i></p>

**Hunting and Deer Management at Mirror Lake State Park**

<p><b>MASTER PLAN OBJECTIVES</b></p> <p>General Mtg.</p>	<p><u>Deer</u></p> <ul style="list-style-type: none"> <li>• To the degree practicable, consider the primary ecological management objectives in the various areas of the park, and manage the vegetation to avoid producing or maintaining habitats that strongly attract or hold deer, such as agricultural crops and aspen stands.</li> <li>• Continue hunting in non-intensive use areas of the park.</li> <li>• Explore law and rule changes to implement a separate Designated Deer Management Unit for the park.</li> </ul>
<p><b>Accomplishments 2011</b></p>	<p><i>Objective 1. Completed</i>  <i>Objective 2. Areas open for deer hunting included a 4 day antlerless hunt in Oct. Earn a buck hunt in Nov. and 4 day antlerless hunt in Dec. along with a late season earn a buck archery hunt.</i>  <i>Objective 3. No Action.</i></p>