

**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**

<b>MASTER PLAN OBJECTIVES</b>	<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>
Real Estate Mtg.	
<b>Accomplishments 2009</b>	<i>No parcels within the expanded project boundary were available for acquisition 2009. No action</i>

**Property-wide**

<b>MASTER PLAN OBJECTIVES</b>	<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>
General Mtg.	

	<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 2009</b></p>	<p><i>Objective 1. Developed the Ishnala Tail. 2.5 miles of new hiking and cross country skiing trails. Utilized existing roads and trails when possible to protect existing trees and vegetation.</i></p> <p><i>Objective 2. Completed.</i></p> <p><i>Objective 3. No timber harvest conducted in 2009. No action.</i></p> <p><i>Objective 4. No timber harvest conducted in 2009. No action.</i></p> <p><i>Objective 5. Treated 33 acres in NW corner of property with Btk to help control gypsy moth populations. Conducted 2009 fall gypsy moth egg mass surveys. Surveys indicated that egg mass numbers were at a low level and any treatment in 2010 would not be justified.</i></p> <p><i>Objective 6. Continue to control garlic mustard, buckthorn, honey suckle and Japanese barberry in day use areas by hand pulling and herbicide application. Utilized mowing and herbicide application to control wild parsnip, box elder, reed canary grass, thistles and other exotic species in lower backlands-grassland area and Northwest Pine Oak Forest State Natural Area.</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.</li> </ul>
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	<p>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.</p> <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><b>Accomplishments 2009</b></p>	<p><u>Camping</u> Objective 1. <i>Planted 100 trees consisting of white pine, red pine, bur oak, white oak, hard maple and white spruce in camp grounds to improve privacy.</i></p> <p><u>Trails</u> Objective 1. <i>Completed</i> Objective 2. <i>Completed</i> Objective 3. <i>Developed 2.5 miles of hiking/cross country skiing trails across the new pedestrian bridge to connect Cliffwood campground to the new property acquisition and Ishnala Restaurant.</i></p> <p><u>Day Use Facilities</u> Objective 1. <i>Completed</i></p> <p><u>Vegetation Management</u> Objective 1. <i>Removed identified hazardous trees in all recreational areas. Planted 100 trees within</i></p>

	<p>recreational areas and maintained turf areas within campgrounds, boat landing and beach area.</p> <p>Management of Mirror Lake</p> <p>Objective 1. Completed</p> <p>Objective 2. Completed</p> <p>Objective 3. Completed</p> <p>Objective 4. Assisted the Mirror Lake Management in removing trees totally blocking navigation in narrow areas of the lake.</p> <p>Objective 5. Assisted the Mirror Lake Management District in removing duckweed and submerged aquatic vegetation which was impacting recreation activities at the boat landing, beach and mouth of the narrows.</p> <p>Objective 6. No rough fish control required in 2009.</p> <p>Objective 7. No drawdown required in 2009. Last draw down occurred in Dec. 2008.</p> <p>Objective 8. Dept. in cooperation with Delton Sportsman Club stocked walleye and bass into Mirror Lake in 2009. Dept. 2009 electro shocking results indicated good size structure on large mouth bass, best bluegill size in a number of years and at least four year classes of walleyes.</p> <p>Objective 9. Planted over 160 feet of shoreline to native plants utilizing native plugs. Areas planted include boat landing, beach and Lake View Trail Shoreline.</p>
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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 2009</b></p>	<p>No new easements purchased in 2009. Monitored the current seven easements for compliance. Action taken on one easement for improper signage. Issue has been corrected.</p>

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

<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>• 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> <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 style="text-align: center;"><b>Accomplishments 2009</b></p>	<p><i>Objective 1. No Action Taken.</i></p> <p><i>Objective 2. Monitor existing trails in this area for resource damage. Erosion control device installed and fencing repaired at one location along Echo Rock Trail in 2009.</i></p> <p><i>Objective 3. No trails in need of relocation in 2009.</i></p> <p><i>Objective 4. No new cliff areas closed in 2009.</i></p> <p><i>Objective 5. No Action</i></p> <p><i>Objective 6. No Action.</i></p> <p><i>Objective 7. No Action.</i></p> <p><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 style="text-align: center;"><b>MASTER PLAN OBJECTIVES</b></p> <p style="text-align: center;">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>
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	<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> <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><b>Accomplishments 2009</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. Development of burn plan for this area.</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>

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**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>
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<b>Accomplishments 2009</b>	<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><i>Objective 3. No Action.</i></p> <p><i>Objective 4. No Action.</i></p> <p><i>Sharecropping</i></p> <p><i>Objective 1. Completed</i></p> <p><i>Recreation Management</i></p> <p><i>Objective 1. Location maps and color coded markers purchased in 2009.</i></p> <p><i>Objective 2. Designated use inspections completed in 2009. No use change recommended.</i></p> <p><i>Objective 3. No trail relocation recommended at this time.</i></p> <p><i>Objective 4. Completed.</i></p> <p><i>Objective 5. No Action.</i></p>
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**Special Management Area - Seth Peterson Cottage**

<b>MASTER PLAN OBJECTIVES</b>  General Mtg.	<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>
<b>Accomplishments 2009</b>	<p><i>Objective 1. Completed.</i></p> <p><i>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.</i></p> <p><i>Objective 3. Work week held in April of 2009. Hazard trees and invasive species removed. Boiler replaced driveway and parking area resurfaced, screen doors and fireplace repaired.</i></p> <p><i>Objective 4 and 5. During the 2009 April Work Week 5 damaged/hazardous trees were removed. This included four white oak and one aspen. One small area approximately 10'x10' in size of prickly ash was cut and treated, along with several areas of honey suckle.</i></p> <p><i>Objective 6. Monthly tours held every second Sunday of the month throughout 2009 and open house held on the first Sunday in June of 2009.</i></p>

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

<p><b>MASTER PLAN OBJECTIVES</b></p> <p>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><b>Accomplishments 2009</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><b>MASTER PLAN OBJECTIVES</b></p> <p>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>
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<b>Accomplishments 2009</b>	<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 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 such as geology in 2009.</i></p>
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**Special Management Area - Former Dredge Spoils Dike and Spoils Storage Area**

<b>MASTER PLAN OBJECTIVES</b>	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.
General Mtg.	
<b>Accomplishments 2009</b>	<i>Former spoils have been depleted and site was leveled and seeded to native prairie in 2009.</i>

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

<b>MASTER PLAN OBJECTIVES</b>	<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>
General Mtg.	
<b>Accomplishments 2009</b>	<p><i>Objective 1. Completed</i></p> <p><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></p> <p><i>Objective 3. No Action.</i></p>

