

APPENDIX C: State Natural Area Designation and Management Standards

State Natural Areas

Master Plan Designation Process for State Natural Areas

Generally, natural areas are tracts of land or water harboring natural features that have escaped most human disturbance and that represent the diversity of Wisconsin's native landscape. They contain outstanding examples of native biotic communities and are often the last refuges in the state for rare and endangered plant and animal species. State Natural Areas may also contain exceptional geological or archaeological features. The finest of the state's natural areas are formally designated as State Natural Areas. The Wisconsin State Natural Areas Program oversees the establishment of SNA's and is advised by the Natural Areas Preservation Council. The stated goal of the program is to locate, establish, and preserve a system of SNA's that as nearly as possible represents the wealth and variety of Wisconsin's native landscape for education, research, and to secure the long-term protection of Wisconsin's biological diversity for future generations. SNA's are unique in state government's land protection efforts, because they can serve as stand alone properties or they can be designated on other properties, such as a State Wildlife Area. By designating SNA's within the boundary of Tiffany and Dunnville State Wildlife Areas, we are helping to accomplish two different, legislatively mandated Department goals. This arrangement makes abundant fiscal sense because the state does not have to seek out willing sellers of private lands to meet the goals of multiple Department programs. This avoids duplicating appraisal and negotiation work and provides dual use of land that is already in public ownership. Sites are considered for potential SNA designation in one or more of the following categories:

- Outstanding natural community
- Critical habitat for rare species
- Ecological reference (benchmark) area
- Significant geological or archaeological feature
- Exceptional site for natural area research and education

SNA Management Activities

State Natural Areas are not exclusively passive management. Within the past five years, over 200 SNA's all over Wisconsin have had some type of active management. Examples of management activities include exotic species removal, burning and fuel reduction, brushing, trail development, ditch filling and planting. Timber harvesting is not a primary focus of an SNA, but it is often necessary to achieve the desired ecological goals of a specific habitat. Regardless of designation, wildfires on state natural areas would be actively suppressed, safety measures would occur in developed areas and insect and disease outbreaks would be considered for control.

Portions of the Lower Chippewa River and Ninemile Island State Natural Areas contain land adjacent to the high quality natural communities and are need to enhance the long-term viability of the primary feature. Many times these buffer lands can be managed less intensive, for less diverse prairie plantings, and more activities while still achieving the goals of augmenting the protection needed to keep the quality

on the core. These areas are given habitat management designations in the plan to indicate the different levels and standards for management.

Recreational Impacts

Impacts would be minimal because the recreation opportunities for any given area were determined before consideration as an SNA. State Natural Areas are not appropriate for intensive recreation and such areas were automatically ruled out as potential sites. However, SNA's can accommodate low-impact activities such as hunting, bank fishing, bird watching, and nature study.

Proposed State Natural Areas on Wildlife Areas

This is a list of two proposed current SNA expansions and the establishment of a new SNA. Each of these sites either contains part of, or the entire boundary of a Native Community Area.

Five Mile Bluff: This current boundary encompasses only the small dry prairie remnants. The native community area focuses on the large block of forest with inclusion of prairie and oak savanna. The expansion of the SNA to include the oak savanna and woodlands around the prairies would better reflect the state of the natural communities in the area. The expanded boundary would be an ecological reference area managed with fire and representative of the natural community continuum found on this extremely diverse and biologically rich bluff. The new SNA boundary would encompass – acres and harbor dry prairie, oak opening, oak woodland and southern dry-mesic forest communities. The name would be changes from Five Mile Bluff Prairie to simply Five Mile Bluff to better reflect the new boundary.

Tiffany Bottoms: This site contains a large complex of floodplain forest communities. The Tiffany Bottoms SNA encapsulates the dynamic nature of the diverse floodplain communities by being established at the point of most rapid transition, The northern portion features Hargrave Prairie and rapidly transitions into a floodplain savanna with large bur oaks, then into a swamp white oak woodland, known from only one other place on earth, and finally into the more typical silt influenced floodplain forest dominated by silver maple. The existing SNA captures a portion of this transition, and the revised boundary would on the exemplify the dynamic continuum and be unique with the floodplain SNA's in that respect. The existing boundary would be expanded to – acres to fully feature the unique dynamics.

Dunnville Prairie and Barrens: This site is a new proposed SNA that features a part of the overall attributes of the Lower Chippewa River system that is not featured in other SNA's or ecological reference areas. This site features a moist prairie, terrace-base lakes, terrace oak barrens and terrace-top jack pine barrens. The site has many management needs to fully develop these natural communities into high quality examples of the type. This site is the only location on the Lower Chippewa River where these attributes can be considered for SNA designation. The proposed SNA would encompass – acres and be added to the official list of SNA's upon approval by the Natural Resources Board.

Management for State Natural Areas

State statute 23.28 (2) states the Department is responsible for stewardship of designated State Natural Areas unless a written stewardship agreement specifies otherwise. Furthermore, 23.28 (3) directs the Department to not permit of any use on a designated state natural area which is inconsistent with or injurious to its natural values. The “natural values are articulated above from 23.27 (2). Stewardship

means the continuing obligation to provide the necessary maintenance, management, protection, husbandry, and support for a natural area and natural values associated with that area.

Management Classification

Prior to development of a management sheet for an individual SNA the sites are classified into different categories to be in agreement with state statute 23.27. The categories are further defined in manual code (in development). Each site is classified as Research Natural Area, Ecological Reference Area, Critical Species Area, Geological or Archaeological Area. They are further classified into subcategories for public use – suitable for public visitation with extensive public facilities, suitable for public visitation with minimal public facilities, public is welcome to participate in non-destructive uses, and closed to public use. The land management is divided into management units determined by ecological characteristics with each unit being assigned a maintenance, restoration, or buffer category.

Ecological Reference Areas

Ecological reference areas are critically important to the Department's mission and the forest certification. These reference areas are:

- Primary locations, and for several natural communities the only locations, to recognize, share knowledge, and attain decision-making responsibility regarding natural ecosystems for individuals, businesses, and organizations.
- The only places to provide a comprehensive array of sites for ecological research, adaptive management benchmarks and science-based management.
- The only places to provide a system of sites that capture the ecological diversity of the state and keep them to assess long-term implications of Department management decisions.
- Places where specialized natural communities are specifically sought and protected to maintain the full array of terrestrial, wetlands, and aquatic systems in the state. Examples are natural communities such as floodplain savannas, terrace-base lakes, and gravelly terrace prairies, which other programs do not actively attempt to protect.
- Places where rare plant habitat is primary purpose for protection.

Management Standards

State Natural Areas that are also designated Ecological Reference Areas must maintain the natural values for which the site was established. They must not permit activities that are injurious to those values. These natural values are articulated for every site in a management sheet to address site specific issues and situations. The purpose for research, critical species and geological/archaeological sites are site specific with no known general natural community type standards.

Oak Savannas and Woodlands: The primary goal for all the oak savanna State Natural Areas is to protect, manage and enhance the best remaining oak savannas to serve as ecological reference areas. Since these natural communities along with mesic prairie are most altered natural community types in the state, examples of pure functioning savannas are non-existent. Science knowledge on savanna composition and ecological processes provides a template for developing a reference area. These identified sites will serve as restoration and enhancement reference areas from which we can utilize the information gathered to help make decisions on other natural resource management activities regarding savanna restoration elsewhere on Department properties.

It is understood that through accelerated understory management and application of frequent prescribed fire some forest species that are of conservation concern would be locally reduced in numbers. Although statewide the available habitat for other enhancement activities would cover over 1 million acres. Habitat for savanna dependent species is virtually non-existent. To manage for the full range of biodiversity in the state, we need to focus some portion of the forested lands towards savanna management. These savanna SNAs will provide the guidance for other savanna management activities.

Permitted management activities: Removal of invasive exotic plant species, non-manipulative research, educational activities, low-impact recreation, active fire management program, brushing and timber cutting to assist in achieving structural characteristics, augmentation of ground layer composition after careful review, and maintenance of any existing facilities.

Prohibited activities: use by motorized vehicles (except for management purposes), mountain bike use, horse-based recreation.

Prairies and Sedge Meadows: The primary goal for all the native prairie and sedge meadow State Natural Areas is to protect, manage and enhance the best remaining prairies and sedge meadows to serve as ecological reference areas. Since these natural communities are a minute fraction of their former extent in the state, examples of largest and best functioning prairies and sedge meadows must be managed to maintain their diversity and ecosystem function to the best of our ability. Science knowledge on Native American land use practices indicates nearly three millennia of similar land management provided the natural prairie diversity we inherited upon European settlement. This information provides a template for our prairies' ecological processes. However, due to the incredible reduction in extent of our prairie systems we cannot apply landscape patchiness on small sites.

Sites designated as maintenance will always leave a small proportion (10 to 25% of any management area) as unburned patches during RxBurn application. For prairie SNA classified as restoration, it is understood that through accelerated brush and timber removal and application of frequent prescribed fire some shrub land species that are of conservation concern would be locally reduced in numbers. For sedge meadows classified for restoration hydrology is more important than fire for maintenance and mechanical cutting of shrubs in winter is a primary tool. Shrubland habitat availability for those species covers well over 1 million acres. Habitat for native prairie dependent species is less than 10,000 acres. To manage for the full range of biodiversity in the state, we need to focus some portion of the grasslands emphasis towards maintain our native prairies. These prairie and sedge meadow SNAs will provide the guidance for other restorations and prairie plantings.

Permitted management activities: Removal of invasive exotic plant species, non-manipulative research, educational activities, low-impact recreation, active fire management program, brushing and timber cutting to assist in achieving open characteristics, augmentation of ground layer composition after careful review, and maintenance of any existing facilities.

Prohibited activities: use by motorized vehicles (except for management purposes), mountain bike use, horse-based recreation.

Barrens: The primary goal for all the pine and oak barrens (including bracken grasslands) State Natural Areas is to protect, manage and enhance the best remaining barrens to serve as ecological reference areas. Since these natural communities are a minute fraction of their former extent in the state, examples of largest and best functioning barrens must be managed to maintain their diversity and ecosystem function to the best of our ability. Science knowledge the extent of barrens indicates Wisconsin is uniquely responsible for providing the natural pine-oak barrens diversity for planet earth.

It is understood that through accelerated understory management and application of frequent prescribed fire some forest species that are of conservation concern would be locally reduced in numbers. Although statewide the available habitat for other enhancement activities would cover over 1 million acres. Habitat for barrens dependent species is proportionally small and ever shrinking. To manage for the full range of biodiversity in the state, we need to focus some portion of the forested lands towards barrens management. These barrens SNAs will provide the guidance for other barrens management activities.

Permitted management activities: Removal of invasive exotic plant species, non-manipulative research, educational activities, low-impact recreation, active fire management program, brushing and timber cutting to assist in achieving structural characteristics, augmentation of ground layer composition after careful review, and maintenance of any existing facilities.

Prohibited activities: use by motorized vehicles (except for management purposes), mountain bike use, horse-based recreation.