

## Unique Plant & Animal Communities Concept Paper

### Issue

The Natural Resources Board (NRB) has authority under s. 23.0916, Wis. Stats., to determine when one or more nature-based outdoor activities (NBOA) may be prohibited on properties purchased with Stewardship Program funds. This authority extends to properties purchased by either the Department or by project sponsors seeking a matching grant. This paper examines the principles for allowing the prohibition of an NBOA when necessary to protect a “unique plant or animal community.”

### Background

The term “unique plant and animal community” is not defined in s. 23.0916 of the statute, but other laws provide clear guidance on this concept. The Wisconsin Endangered Species Act (ESA) was created (s. 29.604 Stats.) to protect endangered and threatened species of Wisconsin plants and animals. It defines “whole plant-animal community” as “a group of species living together in a particular area, time and habitat” and further states that “these communities represent the only standard against which the effects of change can be measured, [and] their preservation is of highest importance”. The legislature stated “that all persons and agencies fully consider all decisions in this light.”

The Natural Heritage Act of 1985 created the Natural Heritage Inventory (NHI) Program (s. 23.27(3)(a) Stats.) and charged it with establishing “a system for determining the existence and location of native plant and animal communities and endangered, threatened, and critical species, the degree of endangerment of these communities and species, [and] the existence and location of habitat areas associated with these communities and species”. The NHI defines a community as “an assemblage of different plant and animal species, living together in a particular area, at a particular time, in a specific habitat.” Communities are typically named for their dominant plant species, such as “oak savanna.”

The legislature created the Wisconsin State Natural Areas (SNA) Program in 1951 to protect “natural areas”; areas of “land or water which have educational or scientific value or are important as a reservoir of the state’s genetic or biologic diversity.” (s. 23.27 Stats.). Natural areas:

- Are reserves for “native biotic communities”
- Provide habitat for endangered, threatened, and critical species
- May contain highly significant geological or archaeological features

For purposes of this concept paper, “unique plant or animal community” is used here synonymously and collectively with the term “natural community” as defined above by the NHI and supported by the ESA and SNA statutes. In some cases, a “unique plant or animal community” may equate with an individual population or site of a rare species (such as a bald eagle roosting site).

High quality natural communities have a long history of scientific analysis and protection in this state. Wisconsin’s early conservationists — including Aldo Leopold and plant ecologist John Curtis — recognized the importance of natural communities and the consequences of their loss. Under their guidance, the SNA Program was created as the first state-sponsored natural community protection program in the nation.

To be eligible for designation as a SNA, land must meet specific, science-based biological criteria as defined in statute and by the NHI and have “...largely escaped unnatural environmental disturbance...” or have largely recovered from past disturbance (s. 23.27(1)(e) Stats.) The primary purpose of SNAs is to protect the state’s biological diversity. In order to protect SNAs, “[t]he department shall not permit any use of a designated state natural area which is inconsistent with or injurious to its natural values.” [s. 23.28(3) Stats.] The SNA Program’s

scientific advisory body, the Natural Areas Preservation Council (NAPC), advises "... the department and other agencies on matters pertaining to...state natural areas, including determinations as to the extent of multiple use that may be allowed on state natural areas..." (s. 23.26 Stats.)

The standards and methods for protecting Wisconsin's natural communities and rare species are based in the interdisciplinary science of Conservation Biology. SNAs are scientifically important as ecological benchmarks or "reference" sites. Because SNAs are intact with relatively little observable effects of human manipulation, they serve as examples for the assessment, restoration and management of more disturbed properties in landscapes identified for protection.

Partnerships employed to protect SNAs have been an integral part of the SNA Program since its inception. Department SNA staff have worked with the University of Wisconsin and other governmental agencies and non-profit conservation organizations – primarily land trusts – to protect natural communities by designating SNAs on lands they own.

### Staff Recommendations

High quality natural communities are irreplaceable resources. The Department will continue to use its current system to protect these resources, including: consultation with the NHI and the NAPC; and land acquisition under the State Natural Areas Program. Although high-quality natural communities are found on other properties, they are largely found on SNAs or SNA-quality lands and it is likely, therefore, that Stewardship projects claiming "unique plant and animal communities" as the basis for an NBOA prohibition will occur primarily there. Based on the property designation or the grant category that the property was acquired under, appropriate staff (such as wildlife, forestry, fisheries, parks and endangered resources) will be consulted regarding the protection of "unique plant and animal communities" on Stewardship-funded properties.

For Department purchased Stewardship Lands, the Agency will continue to operate under current policy found in NR 1.61. For the Stewardship Grant Program, analysis conducted by SNA staff will be made on a case-by-case basis employing tenets of conservation biology in accordance with state and federal law and in consideration of the following:

1. Protect and enhance biological diversity and natural functions of intact assemblages of natural communities exhibiting relatively little human disturbance.
2. Decisions regarding the protection of "unique plant and animal communities" should always be considered in the context of maintaining and protecting biological diversity.
3. Provide reference sites where human manipulation is minimized to allow natural functions and ecosystem dynamics to play out and, increasingly, to monitor the effects of climate change.
4. Manage excessive deer populations (and other species determined to threaten the biological integrity of a site) to avoid damage to vegetation and other features. (At present, 100% of all DNR-owned and grant-funded SNAs are hunted for deer.)
5. Analyze potential threats from human activity, both recreational and land management activities, in terms of geographic context and size of the site.
6. Determine potential for a NBOA to have injurious impacts on the natural values of the site, as directed by Wis. Stats., 23.28 (3).
7. Assess potential for an activity to accelerate or increase over time and cause damage to conservation values of site.
8. Require long-term monitoring of potential impacts of all NBOA on ecosystem functions and biological diversity of the site and utilize adaptive management procedures to mitigate such impacts.
9. Assess poaching risk to rare plant or animal species, such as orchids and certain reptiles, and archaeological relics.