Property Name: Gasner Hollow Prairie

Property Designation or Type: State Natural Area

SNA Designation Number: 261

Property Location: Grant County

Real Estate:
- Project boundary acreage: 270
- Fee acres owned: 50
- Easement acres: 86
- Total Dedicated acres: 122 (File #D145 E (1998; Melli-Bixby), #D131 (DNR))
- Federal aid interest: None
- Land use agreements: None

Maps
A. Project Boundary
B. Existing Cover Types

Property Manager: Nate Fayram, Southwest Ecologist
3911 Fish Hatchery Rd
Fitchburg, WI 53711
608-273-5943
Prepared By (District Ecologist):

Name: Nate Fayram

Title: Conservation Biologist          Date: 4/27/2016

Reviewed/Approved By: (Bureau)

Name: Erin Crain-Sullivan

Title: Deputy Division Administrator Fish, Wildlife, & Parks          Date: 4/27/2016

Approved by Natural Resources Board:  Date: May 25, 2016
A. Regional and Property Assessment

1. General Property Description (topography, soils, vegetation, water resources): Gasner Hollow Prairie features a steep, dry lime prairie and oak savanna situated on a southwest-facing bluff with exposures of dolomite and sandstone. The savanna is noted for its large component of chinquapin oak, here at the northern limit of its range. Most of the bluff is wooded, with gnarly bur and chinquapin oaks as the canopy dominants. Black and white oak are also present along with a dense shrub layer of hazelnut, gray dogwood, and black raspberry. The limestone rocks and cliffs provide habitat for species such as the smooth cliff brake, walking fern, and slender lip fern that are restricted to calcium rich substrates. The uppermost slopes and the top narrow ridge support a high quality dry prairie with a good assemblage of prairie species including pasqueflower, butterfly weed, hoary puccoon, side oats grama grass, needle grass, and little blue-stem. A variety of reptiles including the prairie ring snake and black rat snake are found here and large numbers of migrating birds, especially warblers and raptors, such as bald eagles, use the site.

2. Ecological Landscape: Western Coulee and Ridges EL is characterized by its highly eroded, unglaciated topography with steep sided valleys and ridges, high gradient headwaters streams, and large rivers with extensive, complex floodplains and terraces. It offers the best opportunities in the state to maintain many of southern Wisconsin's natural communities. Many rare species have been documented here due to the diversity, scale, types, condition and context of the natural communities present.

3. Ownership and Adjacent Land Uses: County and township roads, railroad, rural residential, and Conservation Reserve Program (planted prairie). USFWS Upper Mississippi River National Wildlife and Fish Refuge.

4. Property Management Issues, Trends and Needs:

Invasive Species: Bush honeysuckle, garlic mustard, sweet clovers, black locust, spotted knapweed, sumac, and blackberry lily are known on this property. An effort is made to control priority invasive species on an annual basis.

Forestry/Silviculture: No opportunities exist to use commercial timber harvest to help reach ecological goals for the property on current state owned lands. Fuelwood harvest permits may be used (accessible areas near roads) to reduce heavy fuels that could inhibit fire prescriptions or to
meet other management objectives. If additional lands are acquired in the future they will be evaluated for opportunities to use commercial timber harvesting to meet ecological goals.

Prescribed Burning: Frequent prescribed fire is the primary tool for managing this site. A total of 7 prescribed burns have been conducted since the site was designated in 1998: Spring burns were conducted in 1999, 2001, 2006, 2007, 2009, and 2015, and a fall burn was conducted in 2002.

5. **Facility/Amenity development:**
   a. **Existing:** 2 public roads border the site.
   b. **Future:** No change.

6. **Endangered, Threatened, or Special Concern Species:** One bird, two reptiles, and ten plants listed as Endangered, Threatened, or Special Concern in Wisconsin occur here. For details, see Appendix A.

7. **Conservation Opportunity Area(s):** Millville-Sandy Creek (11.17)

8. **Easements:** An 87 acre dedicated easement on private land owned by the Melli Bixby Grant County Trust. Landowner may cut and trim trees to enhance and preserve designated scenic vista, with a minimum density of 8 trees per acre and minimum tree size of 8” DBH. No public access.

9. **Land use Agreements:** None.

10. **Significant Cultural and Archaeological Features:** SNAs may contain historic Native American or Euro-American sites. Activities with potential to disturb archaeological sites will only be undertaken after consultation with the DNR Archaeologist. Any sites with cultural or historical value will be managed in accordance with guidance and statutory requirements (see ss. 44.40 and DNR Manual Code 1810.10). More details can be found in Appendix B.

11. **Refuges and other Closed Areas:** Privately owned easement is not open to the public.

12. **Primary Public Use:** Recreational uses such as hiking, fishing, skiing, hunting, trapping, scientific research, wild edibles collection, and wildlife viewing are allowed. Reference the State Natural Areas Visitation Guidelines and the property’s specific webpage for more information.
13. **Biotic Inventory needs:** New and updated records for flora and fauna tracked in the Natural Heritage Inventory are routinely submitted by DNR staff, volunteers, partners, and the general public. Currently no additional plant or vertebrate inventory needs have been identified beyond our normal monitoring including the established SNA Site Inspection protocol. There is however a lack of knowledge regarding prairie dependent invertebrate diversity and potential impacts to these species through management techniques such as prescribed fire, mowing, and grazing. Research is needed to help determine both the diversity of invertebrates at these remnant sites and especially the impacts of management techniques. The Department acknowledges this and is moving forward with research to address this to help improve management outcomes for these species.

B. **Property Purpose and Goals/ Management Objectives and Prescriptions**

1. **Property Purpose and Goals**
   a. **Purpose:** The purpose of the State Natural Areas (SNA) Program is to protect outstanding examples of Wisconsin's native landscape of natural communities, significant geological formations and archeological sites. Natural areas are valuable for research and educational use, the preservation of genetic and biological diversity, and for providing ecological benchmarks for determining the impact of use on managed lands. They also provide habitat for numerous rare plants and animals.
   b. **Goal:** Manage the site as a reserve for dry prairie, oak opening, and oak woodland, as a significant archaeological site, and as an ecological reference area.

2. **Management Objectives by Natural Community Type**
   a. Restore approximately 109 acres of oak opening, 3 acres of dry prairie, and 24 acres of open oak woodland.
   b. Maintain a continuum of fire-dependent native communities from dry prairie and oak opening to oak woodland, dry forest, and dry-mesic forest.
   c. Natural processes, prescribed fire, and prescribed understory manipulation as described below will determine the structure of the prairie and savanna.
   d. Create overstory conditions that allow enough light to penetrate the canopy and reach the forest floor to stimulate light dependent
understory oak opening and oak woodland species that are currently suppressed from inadequate light.

e. Expand the size of remnant dry prairie openings to maintain conditions favorable to native prairie vegetation.
f. Develop and maintain natural transitions between different plant communities. Reduce hard edges between different cover types.
g. Increase the diversity and abundance of native dry prairie, oak opening, and open woodland vegetation and associated animal species with emphasis on rare species.
h. Maintain or increase existing populations of Species of Greatest Conservation Need, in particular existing populations of reptiles and remnant prairie dependent invertebrates.
i. Restore and maintain oak opening and oak woodland to provide long term hard mast food sources and habitat for wildlife and game species such as turkeys.
j. Prevent introduction of new invasive species, and ensure long-term limitation of the spread, reproduction and impact of existing invasive species.
k. Restore and maintain open areas around appropriate rock structures as an important habitat component for herptiles.

3. Management Prescriptions by Natural Community Type

a. The ecological characteristics of the site will be primarily shaped by an intensive fire management program. Frequent prescribed fire will be used to restore and maintain a continuum of fire-dependent upland communities from dry prairie and oak opening to oak woodland and oak forests.

b. In the oak openings, oak woodlands, and forests the native dominant tree species (primarily oaks) are managed passively. However, limited non-commercial thinning of the canopy, understory manipulation, and shrub control may be needed to mimic natural disturbance patterns. The mostly passive canopy management and understory manipulation will determine the ecological characteristics of the savannas and forests.

c. Non-commercial canopy and understory manipulation will improve conditions for existing oaks, and focus on removal of shade tolerant central hardwood, northern hardwood, and bottomland hardwood species (such as maple, walnut, ironwood, hackberry).

d. In the dry prairies, the native species are managed actively through tree/shrub control using cutting, brushing, and especially fire to mimic natural disturbance patterns. Occasional fire-tolerant oaks, hickories, and native shrubs such as hazelnut may be retained at low densities.
e. Contain or eradicate invasive species through the use of department approved manual, chemical, biological, and mechanical practices and prescribed fire.

f. Provide opportunities for research and education on the highest quality native prairies and oak openings.

g. For additional guidance, see the Xeric Prairie, and Oak Savanna, State Natural Areas Management Guides (WDNR, 2010).

4. **Special Management Issues and/or constraints**

   a. Augmentation of the ground layer will only add species that historically would have been found on the site, using seeds or plugs from local genotype sources.

   b. On remnant sites follow the steps below based on seed availability:
      - (1) Collect seed on-site, distribute to depauperate areas.
      - (2) Collect seed from remnant sites within 50 miles east/west and 25 miles north/south.
      - (3) Purchase seed from local nurseries who can identify source location that meets the about criteria. Consult with NHC Botanist to ensure appropriateness of any nursery introductions.

   c. On reconstruction sites follow the progression of steps below based on seed availability:
      - (1) Collect seed on-site and use to plant reconstructions.
      - (2) Collect seed from sites within 50 miles east/west and within 25 miles north/south.
      - (3) Purchase seed from local nurseries that can identify source location.

   d. Leave appropriate unburned refugia for remnant prairie-dependent invertebrates within prescribed burn units.

   e. Follow Incidental Take Protocols for listed species.

   f. Consider impacts to reptiles regarding timing and ignition patterns of prescribed burns.

   g. Retain snags as important habitat features, unless they conflict with other objectives (such as hazard trees near roads, or prescribed fire hazards).

   h. Salvage of trees after a major wind event can occur if the volume of woody material inhibits fire prescriptions.

   i. Roadside easement area may be managed sporadically by township and state.

   j. Other allowable activities throughout the site include maintenance of existing facilities, and access to suppress wildfires.
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<th>Type of Facility</th>
<th>Total (number/length)</th>
<th>Management Activities</th>
<th>Management Issues and Constraints</th>
</tr>
</thead>
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<td>2</td>
<td>Roadside easement area may be managed sporadically by township and/or county.</td>
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<td>Roads - maintenance/service</td>
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C. **Additional Comments:** None
The data shown on this map have been obtained from various sources, and are of varying age, reliability and resolution. This map is not intended to be used for navigation, nor is this map an authoritative source of information about legal land ownership or public access. Users of this map should confirm the ownership of land through other means in order to avoid trespassing. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map.
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