Southwest Savanna Ecological Characteristics and Management Opportunities

The ecological characteristics and management opportunities of the Southwest Savanna are summarized below. This information comes from several documents, including:

- The Ecological Landscapes of Wisconsin: an assessment of ecological resources and a guide to planning sustainable management, Chapter 20 (WDNR, 2015a)
- Rapid Ecological Assessment for Southwest Savanna (WDNR, 2019)
- Wisconsin Wildlife Action Plan (WDNR, 2015b)

During the master planning process, the DNR planning team may draw on these documents in their entirety.

The Southwest Savanna Ecological Landscape is 1,950 square miles in size, comprising 3.5% of the land area of Wisconsin. Southwest Savanna is among the warmest of the ecological landscapes – with the fourth longest growing season, second warmest January low temperature and third lowest snowfall of the ecological landscapes. It is part of Wisconsin’s Driftless Area – an area defined by its lack of glaciation for at least the last 2.4 million years. Sedimentary bedrock, especially dolomites and sandstones, underlay much of the landscape. Soils are primarily silt loams, which are shallow in some areas with red clay subsoil or bedrock at or near the surfaces. Valleys contain alluvial sands, loams and occasional peats. Owing to its place in the Driftless Area, the Southwest Savanna has a primarily dendritic drainage pattern. Natural lakes are nearly absent, though some reservoirs have been developed.

Most of the landscape (70%) is covered in agricultural crop production. Grassland, forest and residential areas comprise the remainder. The grasslands are primarily pasture, with some containing scattered open-grown oaks. These pastures mimic the historical oak savanna structure. Prairie remnants persist in areas poorly suited to agriculture. Major forests types of the landscape are oak-hickory and maple-basswood (Wisconsin Department of Natural Resources, 2015a).

Significant management opportunities within the Southwest Savanna include:

- Large-scale grassland management
- Native prairie remnant
- Oak Savanna restoration
- Continuum of fire-adapted vegetation: prairie-savanna-woodland-oak forest and scattered populations of sensitive grassland and savanna species
- Forests (hardwood forests and conifer relicts)
- Warmwater rivers and streams
- Coldwater streams embedded within grasslands
- Caves and abandoned mines

The unique ecological features and management opportunities in this landscape are associated with specific natural communities, aquatic features and select habitats. This relationship is shown in Table 1, which is taken directly from The Ecological Landscapes of Wisconsin, Table 20.2.
<table>
<thead>
<tr>
<th>Ecological Features and Management Opportunities</th>
<th>Associated Natural Communities, aquatic features and select habitats</th>
</tr>
</thead>
</table>
| Large-scale grassland management                | Dry Prairie  
Dry-Mesic Prairie  
Mesic Prairie  
Southern Sedge Meadow  
Surrogate Grassland  
Wet Prairie  
Wet-Mesic Prairie |
| Scattered prairies remnants                     | Dry Prairie  
Dry-Mesic Prairie  
Mesic Prairie  
Wet Prairie  
Wet-Mesic Prairie |
| Oak Savanna restoration                         | Oak Barrens  
Oak Opening  
Oak Woodland |
| Prairie-savanna-woodland-forest continuum       | Southern Dry Forest  
Southern Dry-Mesic Forest  
Dry Prairie  
Dry-Mesic Prairie  
Mesic Prairie  
Oak Opening  
Oak Woodland  
Wet-mesic Prairie  
Surrogate Grassland |
| Rare grassland species                          | Visit [Appendix 20.C of The Ecological Landscapes of Wisconsin](#) for a table of rare species and natural community occurrences in the Southwest Savanna. |
| Forests (hardwoods and conifer relicts)         | Southern Dry Forest  
Southern Dry-Mesic Forest  
Pine Relict  
Dry Cliff  
Hemlock Relict  
Wet Cliff |
| Warmwater rivers and streams                    | Floodplain Forest  
Shrub-carr  
Southern Sedge Meadow  
Emergent Marsh  
Submergent Marsh  
Warmwater River  
Warmwater Stream |
<table>
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</thead>
</table>
| Coldwater and Coolwater streams, springs, associated biota | Surrogate Grassland  
Coldwater Stream  
Coolwater Stream  
Springs and Spring Runs |

References
Wisconsin Department of Natural Resources (WDNR). 2015a. The ecological landscapes of Wisconsin: An assessment of ecological resources and a guide to planning sustainable management. Chapter 20, Southwest Savanna Ecological Landscape. Wisconsin Department of Natural Resources, PUB-SS1131V 2015, Madison, WI.

Wisconsin Department of Natural Resources (WDNR). 2015b. 2015-2025 Wisconsin Wildlife Action Plan. WDNR, PUB-NH-938 2015, Madison, WI.

Wisconsin Department of Natural Resources (WDNR). 2019. Rapid Ecological Assessment for the Southwest Savanna Ecological Landscape. Wisconsin Department of Natural Resources, PUB-NH-863 2019, Madison, WI.