CHAPTER I: INTRODUCTION AND OVERVIEW

As the country’s entry into World War II grew imminent, the federal government established a series of production facilities across the country to support the war effort. The Sauk Prairie site was selected as a propellant manufacturing plant for many reasons, including: the land was fairly flat with good drainage, it was close to the Wisconsin River that could supply the enormous amounts of water needed, it was close to cities and villages that could provide an adequate labor force but far enough away for safety purposes, and it was supported by several local officials. The Badger Ordnance Works, as the plant was originally named, was one of 23 facilities in the country that produced explosives or propellants for WWII. At the time of its construction, Badger was the largest propellant manufacturing plant in the world; ultimately it produced over a billion pounds of smokeless gunpowder and rocket propellant for WWII and the Korean and Vietnam wars. The U.S. Department of Defense decommissioned the Badger Army Ammunition Plant in 1997.

The former BAAP property includes lands that were heavily disturbed and degraded during construction and operation, as well as other lands held in reserve, some of which remained in agricultural use over the entire life of the plant. Most of the farmland was transferred to the USDA Dairy Forage Research Center. Approximately 1,550 acres in the northwest section of the BAAP property are now owned by the Ho-Chunk Nation.

The department has received 3,051 acres of the BAAP property from the federal government (of the 3,385 acres it is expected to ultimately receive) for the establishment of the Sauk Prairie State Recreation Area. The department acquired the parcels that comprise SPSRA through the Federal Lands to Parks program in a series of transactions starting in 2011. The department’s portion of the former BAAP is a mix of lands – many parcels were developed intensively, others sparsely. A portion in the northeast section of the SPSRA property remained relatively undeveloped and was the focus of conservation efforts dating back decades; a small amount was continuously cropped. The property lies at the southern border of Devil’s Lake State Park, which with over two million visitors a year is Wisconsin’s most popular state park. SPSRA is about halfway between Baraboo and Sauk City/Prairie du Sac.

The Johnstown Terminal Moraine, a low ridge that runs in a roughly north-south orientation down the middle of the BAAP property, marks the western edge of the great Laurentide Ice Sheet. Lands to the east of the terminal moraine are rolling with undulating topography, wet depressions, and a few ponds. Oak openings, with their scattered, open-grown oaks over grasses and forbs, historically dominated much of this portion of the property. To the west of the terminal moraine, the outwash from the melting glacier formed a gently sloping plain of gravel, sand and silt over 100 feet thick. This was part of the great Sauk Prairie, a 14,000-acre tallgrass prairie that stretched from the ancient Baraboo Range to the sand barrens of the Lower Wisconsin River valley. At the northern edge of the BAAP property was oak woodland, a fire-maintained habitat with more densely grown trees on the rocky soils of the south face of the Baraboo Hills.

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2 Final approvals to transfer three parcels, M1 (the Settling Ponds area, 161 acres), R3 (a maintenance and salvage area, 36 acres) and V1 (the main landfill, 137 acres), are still being processed.
Figure 2: Department of Natural Resources’ ownership at Sauk Prairie State Recreation Area.
A. “User’s Guide” to this master plan

This master plan is arranged slightly differently than most, in large part to accommodate the wide range of people interested in the future plans for SPSRA. The document begins with this introductory chapter, which describes the purpose of master plans, an overview of the planning process, the guiding principles in developing the plan, how the other landowners within the former BAAP are planning to manage their lands, and how the department acquired the property.

The bulk of the document is found in Chapter II, which lays out the proposed management, development and use of SPSRA. In the first part of the chapter, the property vision and goals are described, along with some background information on legal authorities and classifications. Then, the proposed plan is presented in three ways:

The first section presents the proposed uses of the property by activity. This section begins on page 19 and is intended to make it easier for readers that are interested in particular recreational activities and property uses to see the overall scope of what is proposed at SPSRA.

The second section presents the proposed land management prescriptions by general habitat type. This section begins on page 37. The same set of management prescriptions will be used to manage particular habitat types, regardless of where they occur on the property. For example, the suite of actions the department will use to manage oak openings will be the same across the property. Thus, rather than repeat the descriptions of all the management actions that may be used for oak openings in each part of the property where they occur, they are presented just once here.

The third section presents the proposed recreation and habitat management plan by portions of the property. This part begins on page 55. To more easily and effectively present the proposed uses and habitat management strategies, the property is divided into seven units, based upon commonalities of their vegetation, past and future uses, and other factors. Each unit (see Figure 9 on page 18) has a set of objectives and an associated group of strategies to achieve them. For habitat management purposes, the units are subdivided into a total of 24 sub-units. Although the proposed management is presented here by units, SPSRA will be managed as a whole, single entity. In addition, the department will continue to work with all the landowners to coordinate and collaborate on management issues across the entire former BAAP property.

The remainder of Chapter II addresses the proposed management of cultural and historical resources, infrastructure and facilities, general policies and real estate practices. Also included is a brief listing of potential research opportunities as well as descriptions of some of the initial management priorities the department hopes to address in the coming years.

Chapter III provides a brief overview of supporting information. Considerably more background information is available in the large number of assessment, inventory, and planning documents that have preceded this master plan. A reference list at the end of the document (Appendix 2) notes many of these background sources. Chapter IV presents an analysis of potential positive and negative environmental impacts from the proposed plan. Chapter V describes the major alternatives that were considered, but not included. Finally, Chapter VI summarizes the public involvement process leading to this draft plan.
B. Purpose of master plans and the planning process

Property master planning is a process that is used to determine how a property will be managed and developed. The development of master plans is governed by NR 44, Wis. Adm. Code. Master plans serve the following purposes:

- To manage the resources on department properties according to their land use capabilities, consistent with the long-term protection and use of these resources, as required by NR 1.60(4), Wis. Adm. Code.
- To provide a sound basis for decision-making by department staff, administrators, and the Natural Resources Board consistent with the Wisconsin Environmental Policy Act (WEPA).
- To integrate all appropriate department programs and interests into the management and use decisions for the property.
- To provide clear and specific direction on the management, development and use of the property for property managers, administrators, and the interested public.
- To set a long-range vision and goals for the management and use of department managed properties and associated public waters consistent with property capabilities and regional and statewide needs.
- To establish management objectives, priorities and prescriptions necessary to meet individual property goals.
- To give interested persons and other governmental units opportunities to provide input in how properties will be managed and used.
- To provide consistent, long-term management of properties regardless of personnel changes.
- To relate program input (e.g., money, staff, land acquisition, and facility development) to program output (e.g., resources protected or restored, recreational opportunities provided).
- To provide preliminary estimates and justification for the budget process to help ensure that funding is provided for developments specified in the master plan.

The following general principles were applied in developing this proposed master plan:

- Seek an appropriate blend of recreational experiences and habitat conservation in meeting the property’s vision and goals.
- Understand public ideas and perspectives on future uses.
- Be cognizant of the land’s resource capability, the role of the property in its local and regional context, regional recreation supply shortages, applicable federal and state laws, Administrative and Manual Codes, DNR design standards, and the professional expertise of department managers.
- Strive to provide high quality experiences for the primary recreational uses.
- Seek to maximize large block management and minimize habitat fragmentation.
- Seek to protect and provide interpretation of the site’s important cultural and historical resources.

All planning processes start out with data gathering and analysis and a plan to enable property users and other interested people to be involved. An integrated team approach involves all appropriate department programs. The collective knowledge and information provided by these department resource professionals, information about the property and the region, and input from property users and others interested in the property are all essential for developing a quality plan. The last step in developing the plan is review and approval by the Natural Resources Board. Opportunities for public involvement are provided throughout the planning process.

On occasion, the department proposes to conduct management actions or change public uses of a property that are not addressed in the property master plan. Depending on the extent of the change, either a variance or amendment to the master plan (NR 44.04, Wis. Adm. Code) must be approved before the new management or public uses can be authorized. Both the variance and amendment processes provide for public input and comment.
C. Purpose of State Recreation Areas

State recreation areas are managed and administered by the State Parks program in accordance with Wis. Stat. s. 23.09. The primary purposes of recreation areas can be to provide multiple high quality outdoor recreation opportunities, provide regional or urban recreation opportunities, or for preservation of important resources. Unlike other property designations, formal “zones” can be incorporated within the property and the recreation uses and number of people using the zones may be limited. This provision is intended to be applied where the department believes it is necessary or appropriate to restrict access in order to improve visitors’ experiences or minimize impacts to sensitive resources. No designated “use zones” are proposed in this master plan.

D. Property overview, history, significance, and restrictions on future use

As has been stated earlier, Sauk Prairie State Recreation Area is one of the state’s most distinctive and exceptional holdings. The property is part of the former Badger Army Ammunition Plant and was transferred to the state from the federal government through the Federal Lands to Parks program. Its past use and historical importance are unlike any other property in the portfolio of public lands in Wisconsin.

SPSRA is meaningful on many fronts. It offers the best opportunity in southern Wisconsin, if not the Midwest, to manage the continuum from a large forest block (in Devil’s Lake State Park) to oak woodlands to oak openings to large open grasslands. This natural gradient was once far more common on the landscape, but has been eliminated on a large scale. The property’s other important ecological niche is the opportunity to manage large blocks of grassland and oak opening habitats and to coordinate with the HCN and DFRC on the management of their lands.

From a recreation perspective, the property is large enough to provide several different types of activities and is particularly well suited to provide trail-based opportunities that, at least initially, take advantage of the many miles of former roads. Although the roads are of varying quality and surfaces and tend to be straight, these characteristics are part of the site’s history and help tell the story of the property. Maybe most uniquely, the property also provides an opportunity to blend interpretation and education about the extraordinary human and natural history of the site with habitat restoration and recreational use.

Contamination and restrictions on future use

The site’s use as an industrial facility that manufactured propellants resulted in some areas being contaminated. Contaminants included chemicals and byproducts used in propellant manufacture, asbestos, lead paint, PCBs and oil. The contamination was found in buildings and storage areas and spread through the sewer system and drainage ditches. Groundwater under the site is contaminated in four discrete plumes.

The U.S. Army and its contractors undertook an extensive remediation effort to address these contamination issues. As a result of this work, all of the lands within the SPSRA meet the environmental thresholds for use as a recreation area. However, two types of areas have permanent restrictions on future use:

1. landfills and other sites capped with clay to prevent infiltration of precipitation, and
2. areas where contaminants were treated and cleaned but the potential exists that additional contaminants may occur four or more feet underground.

As with most landfills and capped sites throughout the state, the ones here have restrictions on digging or disturbing the soil (e.g., raking, tilling, excavating, and plowing) to ensure their integrity.

The areas that were cleaned to a depth of four feet may be used for surface-based activities, such as recreation, farming, and parking, but may not be used for residential, utility, or subsurface recreation purposes.

The department is required to receive approval from the U.S. Army before using groundwater from under the property.
E. **Overview of the planning process and public participation**

Although SPSRA property is unique in many ways, the process used to develop this master plan generally followed the department’s typical sequence of planning phases. The first phase focused on writing the Regional and Property Analysis (RPA), a synthesis of the attributes and features of SPSRA and its broader context. Public input on the RPA was gathered in the summer of 2012. The RPA and public comments were then used to develop a draft vision, recreational and ecological goals, and three conceptual alternatives for SPSRA. The department went beyond its usual protocol and presented these to the public for their review and comment. Public comments on the draft vision, recreational and ecological goals, and three conceptual alternatives were gathered in the summer of 2013 and summarized in a document released in November 2013.

Those documents, along with previous documents related to the use and management of the BAAP (e.g., the Badger Reuse Plan), discussions with other landowners of the former BAAP, Sauk County officials, and others, and all the public input were then used to develop the initial draft master plan and environmental impact statement. That document was released in August 2015 for a 45-day public comment period. The department hosted an open house and public hearing to present information and gather input on September 10, 2015. A summary of all the comments received during the comment period, as well as copies of all the comments received, was released in October 2015. Those comments, along with input and recommendations from the National Park Service received in May 2016, were used to develop this final draft document. Additional information on public involvement is presented in Chapter VI.

F. **Opportunities in the SPSRA planning process**

In developing the master plan for SPSRA, department staff took advantage of the following unique opportunities:

- **Extensive background material.**
  The Badger Reuse Plan, the department’s Federal Lands to Parks program application to the National Park Service (NPS), community discussions and dialog, inventories, and other planning documents are a strong foundation from which to build the draft master plan. The BAAP property has a long history of assessment and community evaluation that informs the current planning process (see Appendix 2: Reference List).

- **Continuum of habitats.**
  SPSRA offers a unique opportunity to manage a continuum of habitats, from forest to savanna to grassland, on a large scale.

- **Adjacency to Devil’s Lake State Park.**
  SPSRA’s connection with DLSP, the most visited as well as the largest state park in Wisconsin, provides the opportunity to maximize recreation and habitat outcomes.

- **Unique history of SPSRA.**
  The many facets of the property’s past can be incorporated into visitor experiences through a variety of education and interpretation tools. The property has many stories to tell and provides a unique opportunity to connect visitors to many geologic, environmental, social, and historical issues of our state’s past and present.

- **Conservation farming.**
  SPSRA provides an opportunity to integrate conservation farming practices, particularly grazing and late hay cutting, as tools to restore and manage grassland and savanna habitats.

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3 The Final Report on the Work of the Badger Reuse Committee, including Values, Criteria and Concept Map Plan for the Reuse of the Badger Army Ammunition Plant Property (commonly referred to as the “Badger Reuse Plan”) is available on the Sauk County Department of Planning and Zoning website.
G. Management of other lands within the former Badger Army Ammunition Plant

The U.S. Army has transferred, or is in the process of transferring, the former BAAP property to the following owners: DOT (60 acres), Bluffview Sanitary District (164 acres), DFRC (2,105), HCN (1,553 acres), Town of Sumpter (4 acres) and the DNR (3,385 acres). These landowners’ plans for their respective properties are briefly summarized here.

1. HO-CHUNK NATION

In December 2014, after over a decade of effort, Wisconsin Senator Tammy Baldwin announced the transfer of 1,553 acres from the federal government to the Ho-Chunk Nation through a provision in the National Defense Authorization Act.

In October 2014, the Ho-Chunk Nation revised a management plan for their portion of the BAAP. The plan notes the BAAP land has very important historic and cultural significance to the Ho-Chunk people as it lies within the Ho-Chunk’s aboriginal territory and includes a number of historic and pre-historic sites of significance to Native people. As stated in their management plan, the HCN lands at BAAP are proposed to be managed for the following goals:

- Protect the aesthetic, cultural, scenic and wild qualities as well as the native wildlife and plant communities. Special emphasis will be placed on designated federal and state-listed species, species of special concern, and other unique biotic features.
- Protect, conserve, and maintain all significant cultural sites.
- Provide for and manage the use and enjoyment by visitors and maintain a diversity of low-impact recreational opportunities for people of all abilities.
- Utilize sound natural resource and agriculture management practices to improve water quality, maintain soil productivity, and protect wildlife habitat.
- Develop a bison program to support HCN nutritional programs and provide educational opportunities.
- Strive to operate a self-supporting project through grants, donations, bequests, and fee-based recreation that is consistent with the overriding commitment to preserve Badger’s natural, historical and cultural features.
- Establish and maintain a visitor’s center that includes information and exhibits on Badger’s geologic and natural uniqueness, bison management, cultural significance and history of the ammunition plant. The center would also provide information and exhibits on the history of Native Americans and Euro-American habitation of the Sauk Prairie as well as an educational classroom.
2. DAIRY FORAGE RESEARCH CENTER

DFRC has as its mission, “...to develop and apply science that enhances the use of forages by dairy cattle.” Research activities undertaken at DFRC focus on: improving dairy forage and manure management to reduce environmental risk; understanding how dairy cows digest and utilize forages; improving forages so they are better used by dairy cattle; improving methods of harvesting and storing forages; and studying the impact of dairy systems on the environment to help dairy farmers know the best ways to protect the environment and efficiently recycle the nutrients in manure.

In 1980, the DFRC obtained a special permit through the U.S. Army to farm about 1,500 acres of cropland and pastureland that were part of the BAAP. In 2004, the USDA received custody of 1,943 acres of the BAAP to be used by DFRC. The active portion of the DFRC complex is now comprised of 2,006 acres, which are planted in a rotation of crops including corn for grain and silage, alfalfa, soybeans, winter wheat, and red clover. Approximately 40 acres are used for small research plots and 235 acres are used for pasture. The remaining acres consist of buildings, roads, and woodlots. The current herd size consists of about 350 cows, and 350 calves and heifers.

To better enable the DFRC to conduct research designed to find solutions to problems associated with the economic and environmental sustainability of dairy farms, the DFRC is currently developing options for enhancing the research capacity of its farm. After reviewing several options, the Center is planning to build a new research complex near the former Conservation Club site that can house approximately 450 cows. An environmental assessment was completed for the proposed project in 2011 and concluded that a new complex would have fewer individual and reduced cumulative adverse environmental impacts than using the existing facility. Future construction of the proposed facility is dependent on the availability of funding.

3. BLUFFVIEW SANITARY DISTRICT

Approximately 163 acres along the southwestern portion of the BAAP are planned to be transferred to the Bluffview Sanitary District for their wastewater treatment facilities. In addition, a one-acre parcel near USH 12 houses a drinking water well operated by the District.

4. DEPARTMENT OF TRANSPORTATION

The 60 acres of land transferred to DOT were used in the realignment and reconstruction of STH 78 along the southeastern portion of the BAAP.

5. TOWN OF SUMPTER

The Town of Sumpter plans to receive ownership of the parcels encompassing the two cemeteries (Pioneer - 2.7 acres, Thoelke – 1.0 acre). The Town intends to maintain these sites for public visitation.

6. GREAT SAUK TRAIL EASEMENT

The Wisconsin Department of Transportation (DOT) purchased a permanent easement from the U.S. Army on the railroad corridor from the south end of the BAAP property to near Goette Road. The DOT and the Wisconsin River Rail Transit Commission subsequently entered into an interim trail use agreement with the department allowing for use of the corridor as part of the department’s rail-trail network. This segment would potentially be part of the proposed Great Sauk Trail (GST), which is planned to run from Sauk City to Devil’s Lake State Park. Ultimately the proposed GST may extend from Middleton to Reedsburg, where it could connect to the 400 State Trail. Sauk County has taken the lead in developing a recreational use, management, and operation plan for the proposed trail.
H. The department’s acquisition of Sauk Prairie State Recreation Area

The department applied to receive lands that comprise SPSRA through the National Park Service’s Federal Land to Parks (FLP) program. A required element of the FLP application, referred to as the Program of Utilization (POU), is used to describe the initial goals and objectives for the property and lay out a general framework for how the new owner anticipates managing the property.

At the time it submitted the application in 2004, it was not clear which lands the department, Ho-Chunk Nation, Dairy Forage Research Center, and potentially others would ultimately be granted. The department stated in its application that the future uses of the property would be determined during the planning process leading to the development of a master plan. The application stated a general intention to restore and manage grassland and oak savanna habitats and to provide low impact recreational uses, and noted some examples of activities that it expected might come out of the planning process. Those examples included hiking, picnicking, primitive camping, Lake Wisconsin access, and education and interpretation opportunities. **The department deferred decisions related to determining which recreation activities would be permitted on the property, where they would be located, what times of the year they would be allowed, and other parameters associated with their use to the development of the master plan.**

Not surprisingly, over the ensuing decade since the department submitted the FLP application and the POU a number of issues have changed. For example, in 2004 it appeared that the department would be responsible for hundreds of buildings that were slated to remain on the property after transfer. Because the U.S. Army removed nearly all the buildings, this scenario did not occur. As another example, the application stated the department would prepare a master plan for the entire 7,354-acre BAAP property and that issues common to all three primary landowners (HCN, DFRC, and DNR) would be handled in a manner that did not adversely impact the others. Although all partners agree on the need to coordinate planning and ensure that their respective uses have minimal impact on each other, it is now clear that each landowner needs to prepare a management plan for their property that meets their respective legal requirements and administrative needs. The department has no authority in its management plans to describe how lands it doesn’t own should be managed and used.

As it proposed in its application to NPS, the department went through its standard master planning process as described in detail in NR 44, Wis. Adm. Code. The process resulted in this master plan, which provides considerable detail on the recreation opportunities that will be provided at SPSRA and the management actions and strategies the department will utilize to achieve desired habitat outcomes. The department believes that the collection of recreation opportunities proposed for SPSRA, and the parameters by which they can occur, is in accordance with the objective of using the property for low impact recreation. Habitat restoration and management will focus on grasslands and oak savannas. Thus, the core property goals of the original POU remain unchanged and the proposed master plan is consistent with the department’s application to receive the property through the Federal Lands to Parks program.

The National Park Service has indicated that it may be appropriate to update the original POU with this master plan. If the NPS would like to take this action, the department will assist in this process as needed.
Figure 4: View looking north with the Magazine Area (bottom), Central Grassland, Northeast Moraine, and Bluff Vista (center) and Devil’s Lake in distance (top). The property boundary is marked in a dashed line.

*Michael Mossman, 2015*