Part 1: Property Assessment

General Property Description

- **Landscape and Regional Context:**
  The Mead Wildlife Area is located entirely within the Forest Transition Ecological Landscape. Within that landscape, the property lies within several Land Type Associations, primarily Mead Marsh (212Qd06) and Milladore Uplands (212Qd03). Small portions of the property may also be within Peplin Uplands (212Qd07) and Marathon Uplands (212Qd02). Mead is identified within the state’s 2005 Wildlife Action Plan as a Conservation Opportunity Area of statewide significance, as part of the Central Wisconsin Grassland Legacy Place within the state’s 2006 Land Legacy report, and within the 2007 Wisconsin Bird Conservation Initiative’s “Important Bird Areas of Wisconsin” as a critical site for the conservation and management of Wisconsin’s birds.

- **History of Land Use:**
  Large areas of Mead Wildlife Area had been drained for agriculture around the turn of the 20th century. Most of this farming failed, as did a Consolidated Water Power plan to turn much of the area into a reservoir. In 1959, approximately 20,000 acres were donated by Stanton W. Mead to the state for the establishment of a wildlife area. Further purchases and donations over the years have enlarged Mead Wildlife Area to its current size. Active forest management has taken place on the property from its original donation to the present. Installation of water control structures and various grassland management practices have been used to maintain the open areas that make up the bulk of the landscape.

Site Specifics

- **Current Forest Types:**
  Approximately 12,800 acres of Mead Wildlife Area is forested cover. Of that, it breaks down as follows:
  - Aspen (58%) – 16%<15 years old, 41% 15-40 yrs., 43% >40 yrs.
  - Northern Hardwoods (14%) – Mainly (67%) in the 5-11” size class. 18% is in the 11-15” size class. This type includes the Mead Big Eau Pleine Woods, which one of four ecologically important sites (Primary Sites) within the Central Wisconsin Wildlife Areas Planning Group (CWWA).
  - Bottomland Hardwood (7%) – 74% of this type is in the 5-11” size class, the rest is larger. Smaller size classes, or regeneration is largely absent.
Tamarack (6%) – 70% of this type is in a narrow 40-55 years old. Most of the remainder is over 90 years old. A bulk of this acreage is located within the Mead Conifer Bogs State Natural Area, and is also a “Primary Site” within the CWWA.

- **State Natural Areas:**
  Mead Conifer Bogs – 932 acres in 2 pieces.

- **High Value Conservation Forests (HCVF):**
  Mead Wildlife Area has a vast array of unique natural communities that can serve as habitat for a wide range of plant and animal species. Therefore, virtually the entire property can fall into the category for “habitat for species classified endangered, threatened, or priority species of greatest conservation need”. As of this time, HCVF locations have not been catalogued. Sites will need to be evaluated on an individual basis, based on habitat type, species possibly impacted, and activity proposed.

- **Biotic Inventory Status:**
  Completed 2011.

- **Deferral/Consultation Area Designations:**
  Draft sites developed. Not completed.

- **Rare species:**
  A comprehensive list can be found in the “Rapid Ecological Assessment for Central Wisconsin Wildlife Areas Property Group”.

- **Invasive Species:**
  A few high-priority species found in isolated pockets including glossy buckthorn, common buckthorn, garlic mustard, common hemp-nettle and Japanese knotweed.

- **Soils:**
  The most common soil type is muck, though sandy loams, silt loams, loamy sands and loams are present in lesser amounts throughout the core area. Soils along the Little Eau Pleine River in western Mead are alluvial in origin, and are mostly silt loams with lesser amounts of sandy loam. Mucky peat soils are dominant in the western tract of Mead Conifer Bogs State Natural Area and in area surrounding it. The limited upland areas are mostly silt loams and sandy loams derived from bedrock.

**Cultural and Recreational Considerations**

Mead Wildlife area sees extensive recreational use. In addition to offering excellent opportunities for waterfowl hunting, the property also offers excellent opportunities for hunting upland birds, deer, bear and small game. A good deal of fishing also occurs on the property, although generally along the Little Eau Pleine River. Hiking, sightseeing, and excellent birding opportunities also exist. Mead Wildlife Area is also crossed by snowmobile trails and has interpretive trails near the Headquarters building.

Historical, cultural and archaeological sites are also found across the property ranging from old homesteads to old mines. The area was used extensively by native peoples living in the area prior to European settlement.
Part 2: IFMP Components

Management Objectives: The primary forest management objective is to provide younger forest for both game species and early successional Species of Greatest Conservation Need (especially prairie chickens and other grassland birds). A second objective is to provide small blocks of old forest and scattered old trees for mast production, cavity trees and snag trees for wildlife benefits.

1) Aspen & Early Successional Types
   a. Promote aspen where it exists and/or appropriate.
   b. Maintain age-class diversity within the compartment and across the property.
   c. Improve diversity within the stand by developing an oak component within aspen areas where possible.

2) Northern Hardwoods and Oak Types
   a. Promote large blocks of northern hardwoods in areas not currently dominated by aspen or other species.
   b. Thin to promote larger diameter classes and protect legacy trees.
   c. Investigate old-growth opportunities, especially in oak areas on the high ground north of the Little Eau Pleine.
   d. Increase hardwood block connectivity by improving / expanding corridors of the northern hardwood timber type.

3) Bottomland Hardwood
   a. Experiment with techniques to regenerate the silver maple component.
   b. Protect stream banks and fragile soils.

4) Tamarack
   a. Monitor tamarack health in Mead Conifer Bogs Natural Area.
   b. Even-age management of other areas as appropriate.

5) Red Pine
   a. Natural conversion of red pine plantations to a more natural cover type appropriate to site.
   b. Thin to improve spacing and encourage natural regeneration.

Property Prescriptions:

Aspen – Maintain aspen cover type by regenerating the stand using a simple coppice system. Favor winter harvesting for more abundant regeneration as well as reduced soil impact. Rotation age is generally 50 years. Stands on wet sites may need harvest prior to 50 years, as early as 40 years. Aspen growing on high quality sites may have their rotation age pushed back to 55 to 60 years. Achieve age-class diversity by flexing rotation age within the compartment as well as across the landscape.

Northern Hardwoods – Maintain and expand large blocks of northern hardwoods where they exist. Thin stands periodically to improve overall stand health, species composition, and density. Generally, thin when stand basal area reaches 125-130ft², thinning the stand down to 75-90ft². A great deal of fine-tuning can go into management prescriptions for each specific hardwood site to customize the management for a wide variety of silvicultural, ecological, and wildlife objectives.

Oak – Expand the oak cover type on the high ground areas north of the Little Eau Pleine, through natural conversion. Improve the oak component within Aspen cover types by retaining large diameter oaks for mast production, nesting, and seed production. Red oak areas on the northern
high ground offer the best opportunities for old-growth management on the property. Thin to encourage growth of large-diameter oak, as well as enhance old-growth features and structure.

**Tamarack** – As a large majority of this type is located in the Mead Conifer Bogs State Natural Area, a passive management approach will be followed for tamarack. Outside of natural areas, even-age management of tamarack should be utilized; taking into account that even outside the SNA’s this cover type can be considered HCVF in all locations.

**Bottomland Hardwoods** (Silver Maple) – This cover type is generally confined to within ½ mile of the Little Eau Pleine River. As the silver maple present ages, regeneration of this cover type is very important, and has proven difficult. Continue research and experimentation to find an effective system to regenerate this type successfully. Bottomland hardwood areas are also well positioned to be the centers of large blocks of contiguous forest cover, as well as creating corridors of connectivity across the landscape.

**Red Pine** – Nearly all red pine that exists on the property is found in plantations on the east end of the property. As the objective is to convert these areas to a more natural condition, these areas are to be thinned periodically in order to encourage natural regeneration of locally occurring species.

**Additional Resources:**

“Rapid Ecological Assessment for Central Wisconsin Wildlife Areas Property Group” - June 2012

“SNA Guidance to Inventory Personnel Regarding Attributes of Areas That Merit Designation as High Conservation Value Forests on Forest Certified State-owned Lands (HCVF)” – May 2009

**Approvals:**

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