



**Wisconsin Department of Natural Resources
Tier 3 Management Plan**

Property Name: Douglas Hallock Demonstration Forest

Property Designation or Type: Demonstration Forest

DNR Property Code Number: 6937

Forestry Property Code: 2207

Property Location-County: Grant

Real Estate:

Fee acres owned: 440.56

Easement acres owned: 0

NRB approved acreage goal: 435.59

Maps

1. Ownership, Property Boundaries, State Locator, Roads, and Access: Page 4
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Approved by Natural Resources Board: Date: Oct. 29, 2014

A. Regional and Property Assessment

1. Landscape and Regional Context

The Douglas Hallock Demonstration Forest (DHDF) is located in the Western Coulee and Ridges Ecological Landscape (WCREL) and has the following Land type Association (LTA): 222Lc18 - Hills and Valleys – Wisconsin River Drainage.

The Western Coulee and Ridges Landscape 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. Ancient sand dunes occur on some of the broader terraces along the Mississippi and Wisconsin rivers.

The Hills and Valleys – Wisconsin River Drainage LTA is characterized by well drained and moderately well drained silty and loamy soil with a silt loam or sandy loam surface over noncalcareous clayey or loamy residuum or over silty loess; most areas over limestone, sandstone, or shale bedrock.

Historical vegetation in this landscape consisted of southern hardwood forests, oak savanna, scattered prairies and floodplain forests and marshes along the major rivers. With Euro-American settlement, most of the land on ridge tops and valley bottoms was cleared of oak savanna, prairie, and level forest for agriculture. The steep slopes between valley bottom and ridge top, unsuitable for raising crops, grew into oak-dominated forests after the ubiquitous pre-settlement wildfires were suppressed.

Current vegetation is a mix of forest (41%), agriculture (36%), and grassland (14%) with wetlands (5%) mostly in the river valleys. Primary forest cover is oak-hickory (51%). Maple-basswood forests (28%), dominated by sugar maple, basswood and red maple, are common in areas that were not burned frequently. Bottomland hardwoods (10%) dominated by silver maple, swamp white oak, river birch, ashes, elms, and cottonwood are common within the floodplains of the larger rivers. Relict "northern" mesic conifer forests composed of hemlock, white pine and associated hardwoods such as yellow birch are rare but do occur in areas with cool, moist microclimates. Dry rocky bluffs may support xeric stands of native white pine, sometimes mixed with red or even jack pine. Prairies are now restricted to steep south- or west-facing bluffs, unplowed outwash terraces along the large rivers, and a few other sites. They occupy far less than 1% of the current landscape. Mesic tall grass prairies are now virtually nonexistent except as very small remnants along rights-of-way or in cemeteries.

2. Ownership and Adjacent Land Uses

The Douglas Hallock Demonstration Forest, while not itself within the official boundary of the Lower Wisconsin State Riverway, is adjacent to the LWSR and is thus influenced by some of the same resource designations and management implications, including being within the boundaries of the Lower Wisconsin Bluffs and Floodplains Conservation Opportunity Area (COA). The property is surrounded on all other sides by private property that is primarily wooded, some agricultural lands, as well as pastured woodlands.

3. General Property Description and Management History and Use

The Douglas Hallock Demonstration Forest is located in Grant County approximately 1.5 miles southwest of the village of Millville. The property contains 440.56 acres of forest land. The area is open to public use such as hunting, fishing, and hiking.

The land which is now the Douglas Hallock Demonstration Forest was private farmland until the mid-1980's, when the state bought the property. Historically, dairy was the main emphasis during the years 1866 to 1958. The property was part of two farms later combined into one farm. The total forestland

cleared for cropland was 59 acres. Beef were raised from about 1920 to 1940. In 1959, cattle were removed and the cropland was entered under the Conservation Reserve Program.

In 1959 to 1961 the fields were planted to trees. Red pine was planted on the uplands and white spruce on the valley fields, with 500 walnut scatter planted near the parking lot. The spruce failed due to inadequate early management as did the walnut seed interplanted later with red pine in low survival areas. A new landowner replanted the valley fields to walnut/white pine in 1968.

Since the DNR purchased the property in 1984 there have been several timber sales to regenerate oak. In these areas, oaks were planted and for the most part these have regrown to oak forests. Via grants and timber sales, an excellent road and trail system has been developed throughout the property.

Most recently, strip clearcuts and an overstory removal of a shelterwood system have been implemented in order to regenerate oak. These areas were planted with oak and walnut to supplement natural regeneration. There will be continued grant funded site preparation and planting work done in the strip clearcut areas to insure adequate oak regeneration. This will insure an oak forest in the future in a landscape where oak stands are declining.

Permanent regeneration plots have been established in past harvest areas with assistance from DNR silviculturalist. Monitoring of these plots is ongoing.

4. Land Management Cover Types

- Forested cover types total 440.56 acres (99%) of total recon acres.
- Oak (82%) 366 acres of 80-120 year old oak in the 15+ inch size class
- Central Hardwoods (9%) 42 acres of 1-100 year old stands ranging in all size classes from seedlings to 15+ inch trees
- Red Pine (6%) 26 acres of 50 year old trees in the 9-15 inch size class
- White Pine (2%) 9 acres of 50 year old trees in the 9-15 inch size class
- Walnut (~1%) 4 acres of 90 year old 15+ inch trees
- Non-forested acreage accounts for less than 1% of the total acreage for the property.

5. Endangered, Threatened, Special Concern Species or Habitats, and Wildlife Species of Greatest Conservation Need

The DHDF is not specifically listed in the DNR's Wildlife Action Plan's Implementation document for the Western Coulee and Ridges Ecological Landscape (WCREL) (<http://dnr.wi.gov/topic/WildlifeHabitat/COA.html>). However, one natural community type – Southern Dry-mesic Forest – is found on the property, for which there are “major” opportunities for protection, restoration or management.

In addition, oak forests are an important resource for several important resident bird species along with other neo-tropical migratory songbirds. Insects that feed on oak buds and during leaf out, along with the structure of large oak trees create prime habitat for these birds during bird arrival and migration. The presence of oak forests is important for neo-tropical songbirds, making continued management and regeneration of the oak type necessary for future populations.

Priority Species of Greatest Conservation Need for the WCREL associated with the community and habitat types on each property include Acadian Flycatcher, Blue-winged Warbler, Cerulean Warbler, Hooded Warbler, Kentucky Warbler, Louisiana Waterthrush, Red-headed Woodpecker, Whip-poor-will, Wood Thrush, Worm-eating Warbler, Yellow-throated Warbler, Black Rat Snake, Bullsnake, Northern Prairie Skink, Ornate Box Turtle, Prairie Ringneck Snake, Timber Rattlesnake, Western Worm Snake,

Yellow-bellied Racer, Gray Fox, and Woodland Vole. The DHDF contains at least 2 State Threatened bird species as well as a Bird Rookery within the property boundary.

The DHDF, while not specifically identified within the [2005 Wisconsin Wildlife Action Plan](#), does physically lie within the Lower Wisconsin Bluffs and Floodplain COA, which is recognized as COAs of Continental Significance because of the large river system that includes riparian natural and upland natural communities that support numerous Species of Greatest Conservation Need. As such, this property could be considered to have Continental Significance. Additionally, the DHDF property contains the Southern Dry-mesic Forest and Southern Mesic Forest community types which are typical features found in the Driftless area and should be considered when managing the area.

6. Invasive Species

Moderate levels of buckthorn, garlic mustard, multiflora rose, and honeysuckle exist throughout the property.

7. Cultural and Archaeological Features

No known cultural or archeological sites found on the property.

8. Public Uses and Infrastructure

Barker Hollow Road bisects the property North to South and provides access to both portions of the property. Hunting is one of the heaviest recreational uses of the property. Numerous trails provide access to hunters as well as hikers and bird watchers.

9. Refuges and other Closed Areas

None

10. Administrative Facilities

None

Significant Property Management Issues, Trends and Needs:

Need: There is a need for proper signage and boundary line marking. Stream bank protection measures are needed to mitigate erosion concerns caused by heavy rains. Monitoring of forest health issues is needed annually. Monitoring for the presence of Thousands Cankers (black walnut) is needed. This disease has not been documented in Wisconsin (or the Midwest as of 2014). An active monitoring program should be started to ensure this disease does not create forest health problems in the DHDF in years to come.

Issues: Threats to forest health from invasive plant species, non-native and native forest insects, diseases and deer browse will likely become more and more of an issue as time goes on. Oak wilt and gypsy moth are significant forest health threats that should be monitored. Thousands Canker of walnut may become an issue in the future.

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

1. Property Purpose and Goals

Purpose:

The purpose of the stewardship demonstration forests is to demonstrate sustainable forest management and responsible stewardship, while also using these lands as educational tools for students, professional foresters, and non-industrial private forest landowners. The forests provide an opportunity to demonstrate active timber management and sustainable forest management. While growth and yield records are no longer maintained on a regular basis, most of the tracts do have good historical information that may be useful in research, and the lands are open for potential “new” research opportunities.

Goals:

- 1) The production of high quality saw logs at maximum growth rate is the highest priority for the property. Oak is the dominant merchantable cover type. Management will include other merchantable, compatible species whenever possible, including reforestation work.
 - a. Veneer production will be the goal unless specifically stated otherwise. Oak and walnut will normally receive the benefit of management when site conflict occurs.
 - b. Sawlogs of all merchantable species will be harvested when economically feasible from all stands. Management will favor of oak, walnut, and high value species or softwoods in established plantations.
- 2) Maintain oak cover types where feasible
 - a. Diversify age classes-regenerate stands so that all age classes of oak are represented on the property
 - b. Thin to achieve larger diameter trees
 - c. Increase coarse woody debris
 - d. Crop tree release oak in young stands
- 3) Emphasize importance of forest interior songbirds
- 4) Thin scattered pine plantations to promote growth and maintain for forest diversity
- 5) Control invasive species as needed
- 6) Continued management and possible expansion of small prairie openings in oak woodlands. Prescribed fires have been previously used in these areas to benefit native prairie species.

2. Current and Planned Land Management Objectives and Prescriptions

- (1) Oak** - Maintain oak cover types by conducting regeneration harvests in stands suitable for oak. Shelterwood and strip clearcuts are already in use at the property. Plant oak seedlings in areas where natural regeneration is lacking. When regeneration is adequate, remove shelterwood trees and conduct regeneration harvests once stand rotation age is reached. Sale design will consider effects on forest interior songbirds.
- (2) Pine** – Sell pine plantation thinnings when age appropriate and markets allow. Maintain pine as long as possible for forest diversity.
- (3) Central Hardwoods** – If there is a walnut component to any central hardwood stand, these will take priority in management. Although this property main objective is to promote oak, this does

not necessarily mean the stand will be converted to oak. Central hardwood stands will be allowed to remain if site is not suitable for oak or other merchantable species exist.

(4) Walnut – Grow large high quality walnut to demonstrate to the public the economic benefits of growing large diameter walnut.

Current and Planned Facilities or Infrastructure

Type of Facility	Total	Management Activities	Management Issues and Constraints
Roads - public	0		
Roads – non-public	0		
Parking lots	1	Unsurfaced lot/log landing. Maintenance is performed as needed.	None
Boat landings	0		
Designated trails	0		
Managed, non-designated trails	1/approx. 100'	BMP demonstration area	Clearing of timber along adjacent fence line
Dikes, ditches	0		
Dams	0		
Other	0		

Other On-going Management Activities

	Current Management Actions	Management Issues and Constraints
Project Boundary Modification	Marking/signing of boundaries is in planning stages. Will be underway soon.	Funding
Proposed Timber Sales	Approximately 100 acres have been proposed for harvest in primarily oak stands.	None
Invasive exotic species	Monitoring of invasive species is ongoing.	Personnel time and funding

Endangered, Threatened, Special Concern Species or Habitats, and Wildlife Species of Greatest Conservation Need	Monitoring and mitigation of impacts to species and habitats are ongoing. Multiple species and habitats are found on the property.	Timing of management practices to mitigate impacts, personnel time and funding
Cultural and Archeological Resources	None	None

Additional Comments: None

Changes or Additions to Current Management and Development: None

The 3.97 acres of property owned above the current acreage goal are recommended as an addition to the property acreage goal as part of the Tier 3 Master Plan Approval. The land was purchased to improve access.

SUMMARY OF PUBLIC INVOLVEMENT ACTIVITIES FOR THIS PLAN AND COMMENTS RECEIVED

Summary of Public Involvement Activities

On May 20, 2014, a 21-day public review period for revision of Stewardship Demonstration Forest property management plans was publicly noticed statewide. Publics and partners were informed by way of a statewide press release and an email distribution to subscribers of 'eGov', a statewide government delivery system.

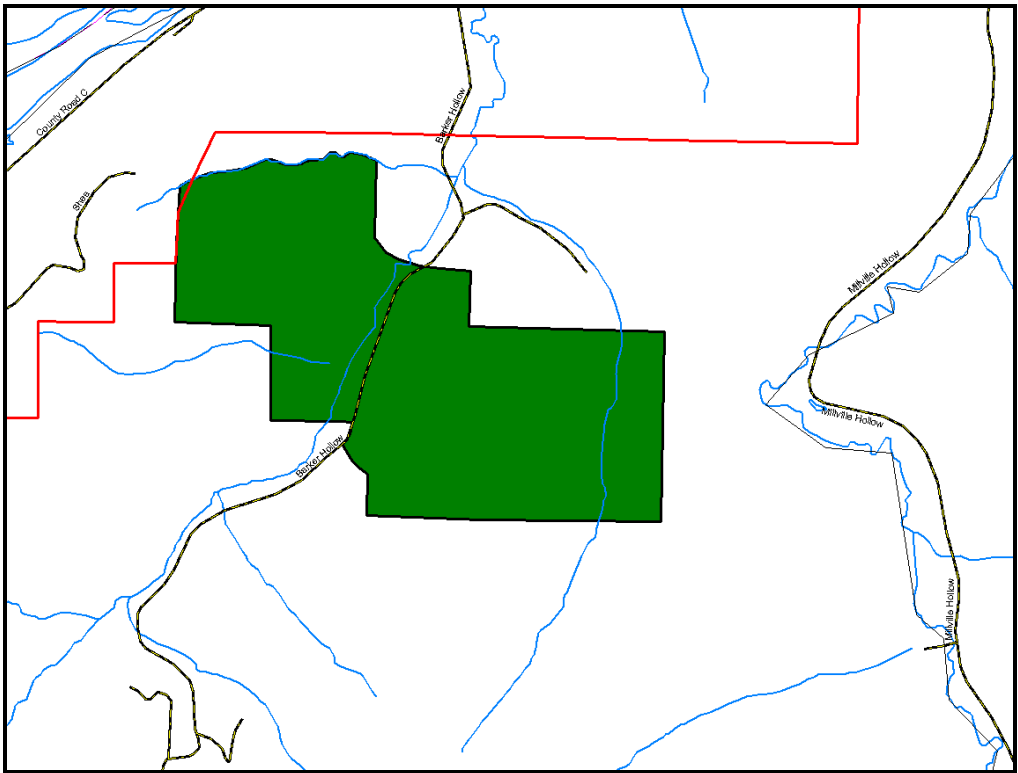
A comprehensive DNR web page was developed for Stewardship Demonstration Forests to describe their history and purpose, and to identify individual properties and locations. Draft management plans were posted on the website for public viewing.

The public was invited to respond by on-line electronic comment form, paper comment forms and email. Consultation occurred for Stewardship Demonstration Forests located within the tribal ceded territory.

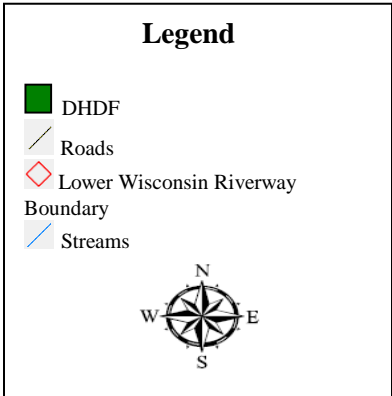
No comments were received by the public.

Douglas Hallock Demonstration Forest

Ownership, Property Boundaries, State Locator, Roads, and Access Map



1 in. = 2640 ft



Cover Type Map

Douglas Hallock Demonstration Forest

