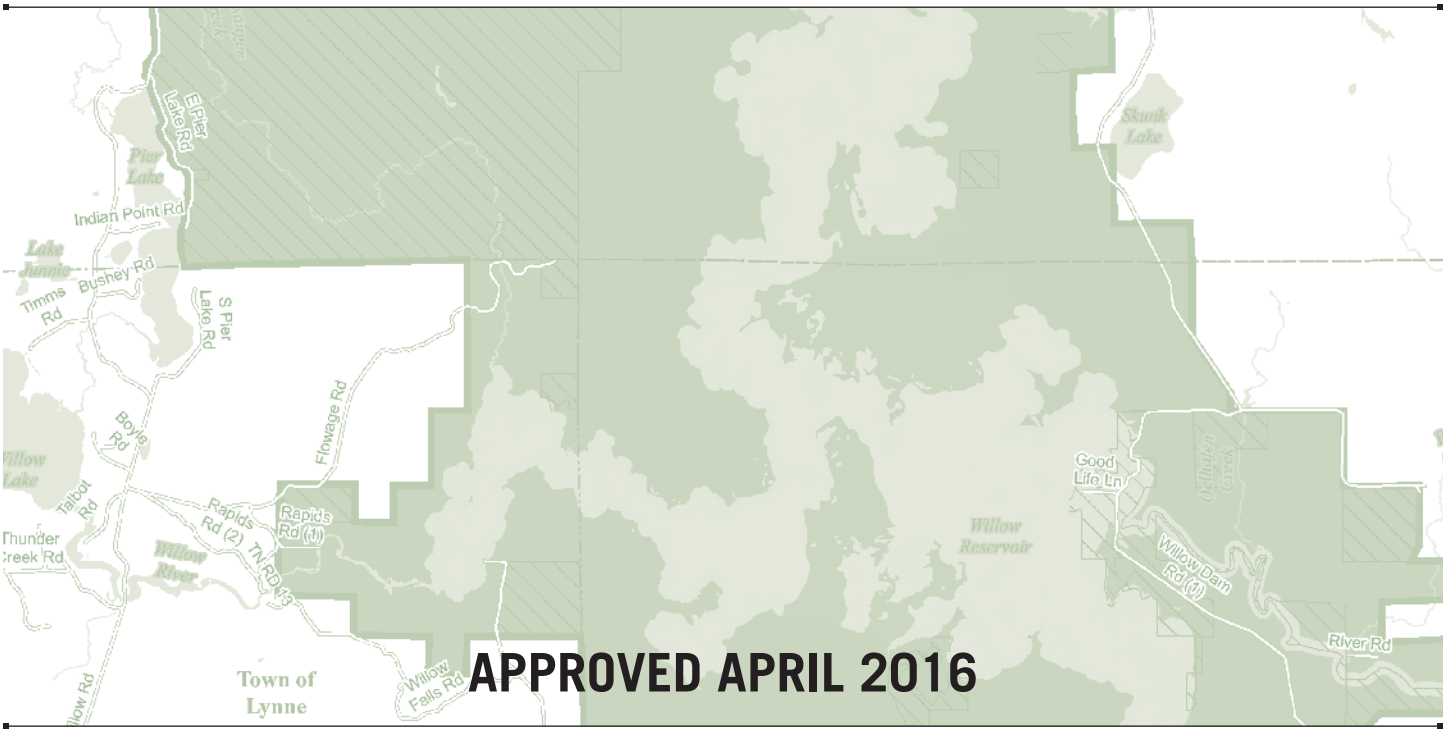
MASTER PLAN

WILLOW FLOWAGE SCENIC WATERS AREA



APPROVED APRIL 2016

ACKNOWLEDGEMENTS

This plan has been developed through a team effort by many individuals from the Department of Natural Resources. Through their hard work and expertise, these people have developed a plan that will guide the Willow Flowage Scenic Waters Area into the future.

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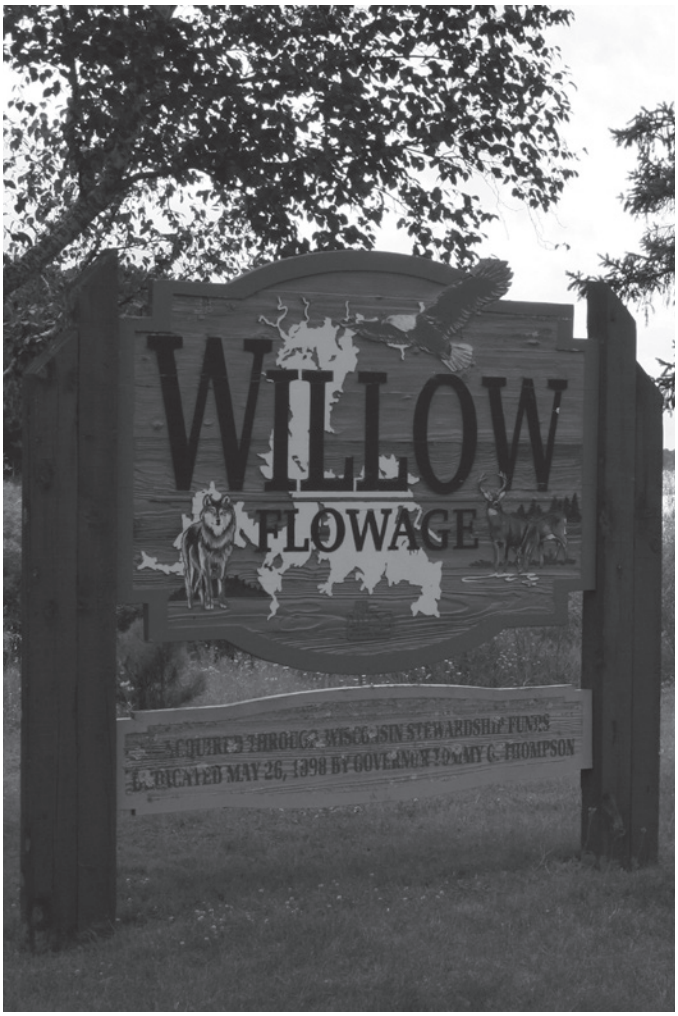

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INTRODUCTION AND PLAN OVERVIEW

INTRODUCTION

In late May 1998, Governor Tommy G. Thompson officially dedicated the Willow Flowage Scenic Waters Area. The Department had purchased 8,720 acres comprising islands and shorelands from Four States Timber Venture the previous November. In 1999, the Department added another 7,425 acres to the property by a land purchase from Packaging Corporation of America that became known as "The Great Addition". In 2004, Wisconsin Valley Improvement Company (WVIC) donated over 6,000 acres of submerged land to the Department and an additional 38 acres near the Willow dam that included two prominent boat landings. The master plan further expanded the authorized property boundary by 8,630 acres, setting the approved acreage goal at 34,804 acres.

The Willow Flowage Scenic Waters Area is located in westcentral Oneida County, 15 miles southwest of Minocqua and 12 miles northwest of Tomahawk. Included are over 110 islands and 64.1 miles of mainland shoreline of which about 95% is undeveloped. The remaining 3.6 miles (5%) are in private ownership which includes resorts, private campgrounds, and private residences.

Created in 1926 with the damming of the Tomahawk River, the flowage is downstream from the confluence with the Willow River. Its use remains that of a storage reservoir providing a constant flow of water in the downstream river system for a variety of public purposes. At full capacity the flowage has a maximum depth of 30 feet and, although seasonal water depths vary greatly, the fishery and wildlife flourish. The Natural Resources Board designated the flowage an Outstanding Resource Water in December of 1997 because it has excellent water quality and supports a diversity of aquatic plants, fish, and wildlife.

With limited development and access, this large, irregularly shaped, island-studded reservoir holds a wild flavor. Its sense of remoteness and scenic, natural shore is a unique and highly valued feature, drawing people from around the region and state.

Flowage visitors find pine and willow-studded islands and rock-strewn sandbars. Abundant walleye and panfish populations, along with northern pike, muskellunge, and large and smallmouth bass, make fishing the primary draw. White-tailed deer, bear, beaver, muskrat, otter, and ruffed grouse are also found here. Mallards, hooded mergansers, blue herons, and loons are common waterfowl visitors. Eagles and osprey can be seen fishing the waters or tending young around the flowage. Wolf packs frequently roam the area.

Aspen dominates the uplands. It is interspersed with red and white pine, red oak, maple, white birch, and fir/spruce. About one-third of the land is lowlands timbered with black spruce, tamarack, northern white cedar, and swamp hardwoods or is open bog, sedge meadow, or shrub swamp. Intensive commercial logging (prior to the state's purchase) created a relatively young forest across most of the backland area. However, a narrow band of more mature trees lies around the shoreline. This gives the Willow Flowage Scenic Waters Area property a more wild, scenic appearance from the water.

A mile upstream from the flowage lies the Tomahawk River Pines State Natural Area. The Great Addition purchase connected this previously existing state-owned natural area to the flowage. The newly acquired lands along the river give permanent protection of additional sensitive habitats.

FLOWAGE HISTORY AND PAST MANAGEMENT

The 6,392-acre Willow Reservoir came into existence in 1926 when Wisconsin River Valley corporations were looking to provide sustainable water power for their industrial plants. The Willow Flowage waterbody was constructed by the Wisconsin Valley Improvement Company (WVIC). The company's purpose, as stated in their charter, is " … to produce as nearly a uniform flow of water as practicable in the Wisconsin and Tomahawk rivers by storing in reservoirs surplus water for discharge when water supply is low to improve the usefulness of the rivers for all public purposes and to reduce Flood damage."

The Department owns most of the land below the ordinary high water mark (elevation 1,529.35 feet NGVD (National Geodetic Vertical Datum)), and most of the land above the ordinary high water mark surrounding the flowage, including all of the islands within it. WVIC owns and operates the dam and adjusts the water levels in the flowage under a federal license. Together, WVIC and the Department are responsible for the

long-term protection and maintenance of this highly-valued public resource.

WVIC is required by the Federal Power Act to have a federal license for its operation. The Federal Energy Regulatory Commission (FERC) license was renewed in 1996 for 30 years. Additionally, WVIC holds restrictive covenants on a 300 foot buffer of the land surrounding the flowage. These covenants prohibit construction of buildings or other structures along the shoreline and, in many cases, prohibit any use other than timber production and harvesting. The Department's Willow Flowage Master Plan, therefore, must be consistent with these covenants. Additional information on WVIC is provided in the Appendix.

The quality and undeveloped nature of the flowage and its surrounding lands are a result of the long-time management of WVIC and the industrial forest owners. The forested lands surrounding the flowage were industrial forest lands managed primarily for large block aspen with smaller areas in pine. A 100-foot-wide unmanaged, scenic strip was left around the flowage.

In addition to regulating water flow for downstream water-power and producing forest products, the area has long been a popular destination for fishing, camping, hunting, and the enjoyment of nature and solitude. As many as 54 primitive campsites were developed by campers. Seven boat landings provided access to the flowage but only two were developed public landings. Under previous management by local paper companies, public vehicle access to the flowage lands was limited as the logging roads and most of the industrial forest roads were closed to public vehicles. ATVs and snowmobiles have long been popular on the flowage and on designated trails.

DNR AND WVIC PARTNERSHIP

DNR and WVIC have unique roles and responsibilities relative to management of the Willow Flowage Scenic Waters Area. Under authority of FERC license, WVIC will continue implementation of the required and approved flowage operation and related environmental and recreation plans.

DNR and WVIC are partners, with each having its own management roles and responsibilities. However, each is dependent upon the other to successfully fulfill its management objectives. Therefore, WVIC and DNR agree to consult regularly to maintain a clear understanding of their management roles and objectives and to seek cooperative approaches for the long-term quality of the Willow Flowage Scenic Waters Area and its use.

TRIBAL CONSULTATION

Members of the Willow Flowage Scenic Waters Area Master Planning Team and representatives of the tribes met to discuss progress on the plan and impacts on treaty rights. Consultation with tribes is a requirement of Chapter NR 44.04(7)(c), which reads: "During a planning process for properties lying within the ceded territory recognized by Lac Courte Oreilles v. Voigt, 700 F.2d, 341 (7th Cir. 1983), the department shall consult on a government to government basis with Indian tribes retaining off-reservation hunting, fishing and gathering rights in that territory."

OVERVIEW OF THE PLAN REVIEW PROCESS

A master plan review process assesses the plan's capability to meet present and long-term needs for resource management and conservation and public use. In other words, it should describe whether the plan is functioning well, or whether changes or additions should be considered. After completing a plan review process the department submits a report and recommendations to the Natural Resources Board (NRB). NR 44 requires the department to review each property master plan (approved after 1996) every 15 years to determine if any changes should be made. The NRB approved the Willow Flowage Scenic Waters Area Master Plan in 2000 and it is now due to undergo a plan review. Specifically, NR 44.04(12) states:

> *The department shall review master plans every 15 years and make recommendations to the board. The board shall determine whether the plan is to be amended, revised or extended for another 15-year period. A master plan shall remain in effect until the board takes action to modify it. The department shall take measures to reasonably notify interested persons of a 15-year plan review, and then shall use an appropriate public involvement process to determine or examine issues related to management and use of the property and the need for plan revision.*

PRIMARY PLAN REVIEW ISSUES

There were a number of known issues and opportunities that were addressed during the Willow Flowage Scenic Waters Area Master Plan review based on annual monitoring, integrated meetings and user feedback:

- Land Management
- Recreation Management
  - Motorized Access
- Land Acquisition and Project Boundary Changes
- Administration Elements
  - Special Management Area Gravel Pit
  - Consultation with Local Units of Government

SUMMARY OF THE MASTER PLAN AND REVISIONS

LAND MANAGEMENT

The property has been divided into 4 land management areas with Forest Production Areas comprising approximately 85% of the property. About 7% of the forest is classified as Scenic Resource Management Area which includes all islands, a 200 foot buffer on each side of the Lower Tomahawk River corridor, and a 300-foot strip along the shoreline. Native Community Management Areas, which includes the two prominent peninsulas on the property and the Upper and Lower Tomahawk River Pines Areas, equate to 9% of the total property acres. There is a one-acre gravel pit located in the southeastern portion of the property that is classified as a Special Management Area. Of the 21,496 acres of state ownership above the ordinary high-water mark, approximately 63% is upland and 37% is lowland.

Cover Type and Forest Production

Approximately 9,800 acres (54% of the total property acres) are classified as aspen. In an effort to effectively manage and perpetuate the aspen resource, while allowing for conversion to pine or other species where applicable, the long term acreage goal for aspen will be 9,000 acres. The slight reduction in aspen acreage is due primarily to areas along the shoreline and Tomahawk River Areas that will be managed to include a natural, wild-appearing landscape with long-lived trees like red and white pine. Even with this reduction, aspen will remain as the dominant cover type on the Willow Flowage and the forested backlands will maintain aspen at current levels.

The property will continue to provide structural diversity with age variability, snags, den trees, coarse woody debris, and large diameter canopy trees. Annual forest production levels will see slight annual variations and will increase from the past 15 year annual average harvest levels. 94% of the forested acres are available and scheduled for forest management. Forest production management techniques include even-aged management (80%) and uneven-aged management (20%) (thinnings are part of even-aged management).

The Native Community Management Areas consists of 1,685 acres on the two prominent peninsulas and sites on the Upper and Lower Tomahawk River. The long-term goals are to manage and increase the component of red and white pine In an effort to expedite the long-term goals, timber harvesting will be allowed year-round and mechanical and/or chemical site preparation methods will be authorized. These measures will provide greater flexibility and allow more tools to be utilized in an effort to increase the pine component.

The Scenic Resources Management Area is a strip of land originating at the water's edge and continuing 300' landward of the ordinary high water mark along the flowage and 200' along the Tomahawk River. Within this strip, the long-term goal is to use active management to promote, maintain, and enhance a natural, wild-appearing landscape with a dominance of large diameter, long-lived trees like red and white pine. Year-round timber harvesting will be allowed to provide greater flexibility with timber sale administration.

The area classified as Special Management Area is a one-acre gravel pit located off of Iron Gate Road in the southeastern portion of the property that will be expanded to a size not to exceed 10 acres. The gravel pit was established by previous landowners who utilized the material for logging and access roads on the property. Department operations over the past 15 years, which included projects such as road improvements and repairs, parking lot construction, and ATV trail enhancements, have reduced the available stockpile to approximately 2,000 cubic yards of material. In order to ensure a future supply of material for Department operations and to potentially provide material to adjacent local units of government, expansion of the gravel pit is authorized.

RECREATION

Non-Motorized Trail-Based Recreation

Nature based non-motorized trail activities are a popular and established recreation niche in the Willow Flowage area. An accessible, interpretive nature trail with parking for up to 15 vehicles was constructed on the east side of the property off of Willow Dam Road. The trail includes interpretive signs, scenic vistas, and trailside benches throughout its course. The 1.1 mile crushed granite portion provides walk-in access to four campsites and has been engineered to be accessible with a firm base and moderate slopes. Public opportunities

will expand in other portions of the property with increased traditional trail uses such as horseback riding. Bicycle and equestrian access will be expanded to include all roads and trails unless posted closed. Non-motorized recreation may be further diversified as trails are developed or designated to accommodate new activities such as cross country skiing, snowshoeing, and winter biking. Added amenities such as improved access to the Skunk Lake trailhead with improved parking will further support trail based recreation. Some trails will be designated for multiple uses throughout the year or on a seasonal basis.

Motorized Recreation

Willow Flowage staff will continue to work with partners, recreation clubs, and other trail users to maintain the Willow area ATV and snowmobile trails located on Department property. In general, motorized recreation will increase as a result of this plan. As part of a regional trail network, the 19 miles of snowmobile trails will continue to provide links and routes in Oneida County. Due to unpredictable ice conditions near the Willow Flowage Dam, a ¼-mile reroute is planned to allow snowmobiles to access the Sandy Landing in an effort to improve safety.

An ATV trail provides over 5 miles of designated trails on the eastern portion of the property. The trail system connects Burrows Lake Road to Willow Dam Road and eventually to Cedar Falls Road. A one mile reroute is planned on the trail section near the junction of Willow Dam Road and County Highway Y to extend the portion of off-road trail and reduce the amount of travel on Willow Dam Road. Several other locations are slated for ATV trail expansion. These include a .66 mile long segment of existing snowmobile trail in the Town of Nokomis, two segments in the Town of Minocqua, and two segments in the Town of Lynne. The segment in the Town of Nokomis is dependent on the creation of other portions of the trail and will only be authorized if and when a connecting trail becomes available. In addition, the allowance of this segment may not compromise the viability of the existing snowmobile trail. The segments in the Town of Lynne are located off of Flowage Road and provide access to two boat landings on the property's west side. These trail segments originate on Oneida County Forest land where ATV usage is already authorized.

Roads

An additional 3 miles of roads will be open for public motorized vehicle use, including segments of \/West Side Fire lane, Swamsauger road, Skunk Lake road. These roads will provide walk-in connections to existing neighboring roads. An additional 6 miles of Iron gate road will be open year round from its current seasonal designation.

Camping
Camping opportunities will be expanded on the Willow Flowage and along the lower Tomahawk River corridor. There are currently 35 campsites (30 single-unit campsites and 5 group campsites) on the Willow Flowage. The single-unit campsites accommodate families or groups of up to 6 unrelated individuals and the group campsites accommodate up to 15 people. An additional 2 group campsites will be added on the Willow Flowage to provide improved accommodations to larger camping parties. An additional 4 campsites are authorized to be constructed on the lower Tomahawk River to provide accommodations for paddlers and boaters. The river campsites will be similar in design to the existing shoreline campsites on the Willow Flowage and will provide users with a picnic table, a fire ring, and a box latrine.

Hunting, Fishing, and Trapping
The Willow Flowage will continue to provide abundant opportunities for hunting, fishing, and trapping, and to maintain reasonable public access to forest and water resources. Willow Flowage staff will work in cooperation with wildlife and fisheries management to support sporting opportunities while protecting rare, threatened or endangered species and their habitats.

Water Recreation
Water based recreation is one of the primary activities in the Willow Flowage area. The 5,192 acre flowage provides scenic boating and paddling opportunities and access to over 110 islands, numerous peninsulas, and many hidden bays. The east side boat access locations, near the Willow Flowage dam, offer two improved landings and paved parking lots to accommodate vehicles with trailers. A toilet facility is located at the Dam Landing and a similar facility is proposed for the Sandy Landing. The four other landings on the property, including Sportsman's, Talbots, Jerry's, and McCord Road, provide rustic access roads and parking accommodations for up to eight vehicles with trailers at each location. Sportsman's Landing will be improved to provide more parking opportunities, an improved access road, and a concrete ramp.

The Tomahawk River provides canoeing and kayaking opportunities along its entire course. The 7 mile long stretch that flows from Camp Nine Road to Cedar Falls Campground is characterized as low-gradient and flows through the Tomahawk River Pines State Natural Area. The lower river, from below the Willow Dam down to Prairie Rapids, is approximately 21 miles in length. There are three existing canoe landings along the lower river that will be improved to include informational kiosks, better parking, and easier boat access.

BOUNDARY EXPANSION AREAS
Acquisition Goal for the Willow including the Dick Steffes Unit is 37,503 acres.

This reflects a 380 acre reduction from the current 2000 master plan, of which 240 acres is currently state owned.

The boundary contraction does not include any lands with water frontage on the Tomahawk River and consolidate holdings and does not impeded public access to existing department owned lands.

FULL RANGE OF BENEFITS
Protection of Soil and Water Quality
Soil and water quality will continue to be protected by maintaining the majority of the forest in an undeveloped condition. Erosion control practices, such as Best Management Practices (BMPs) for water quality, will be followed when conducting forest and other management activities.

Production of Recurring Forest Products
Under the plan, 94% of the potentially productive forest lands will be under active sustainable management producing forest products. (as per page 10, section 2)

Outdoor Recreation
The Willow Flowage Master Plan will continue to provide the existing recreational opportunities, while providing many improvements and upgrades throughout the property.

Native Biological Diversity
Native biological diversity will be maintained through enhanced forest structure and species composition in some areas. Aquatic resources and other unique habitats will be protected. Endangered and threatened species will continue to be protected.

Wildlife
The forest and wildlife management prescriptions in this plan have been developed to ensure that habitat and ecosystems for a wide range of terrestrial and aquatic wildlife will be sustained and improved.

Aesthetics
Over time, forest health and scenic qualities will be enhanced as longer-lived conifers such as red and white pine become more common through forest management. In certain situations, management activities may improve the scenic qualities of a particular setting by improving the scenic vista. The scenic quality of all shoreline, trails and forest roads will be evaluated prior to management.

MANAGEMENT AND DEVELOPMENT

MANAGEMENT AND DEVELOPMENT

PROPERTY DESIGNATION AND AUTHORITY

Designated Property Name: Willow Flowage Scenic Waters Area

Property Type Designation: State Recreation Area, as defined under s. 23.091 Stats.

Statutory Authority: The authority to acquire and manage land within the Willow Flowage Scenic Waters Area comes from s. 23.09(2)(d), Stats and s. 23.091 Stats. These statutes authorize land purchases by the Department for fisheries, wildlife, forestry, parks, natural areas, and recreation area purposes.

Acreage Goal: The acreage goal is 34,804 acres.

VISION

To preserve and protect the natural scenic beauty and solitude of the Willow Flowage Scenic Waters Area by maintaining its undeveloped shoreline, managing its resources and offering compatible recreational opportunities. The Willow Flowage Scenic Waters Area is managed in consultation with federal, tribal, local and other governments, and with other people who care about the property, including those who live, work and recreate in and around it.

GOALS

Maintain and enhance the aesthetic qualities and solitude of the Willow Flowage Scenic Waters Area. Protect the water quality, sustainable fisheries, undeveloped shoreline, and aquatic and terrestrial habitats of the Willow Flowage Scenic Waters Area that led to its designation as an Outstanding Resource Water.

Manage for and enhance the diverse range of native flora and fauna of the Willow Flowage Scenic Waters Area.

In consultation with tribal governments, manage the land and other natural resources to provide for the exercise of Chippewa Treaty rights in accordance with applicable law.

Provide access, for persons of varying abilities, to the resources and recreational opportunities of the Willow Flowage Scenic Waters Area.

Provide and maintain a diversity of forest cover types and age classes in order to preserve forest health and to enhance aesthetic appeal and wildlife habitat.

Provide a variety of renewable forest products consistent with forest capabilities.

Acquire additional lands to maintain and enhance the aesthetic qualities, solitude and Outstanding Resource Water designation of the Willow Flowage Scenic Waters Area and surrounding area.

Provide for a variety of information, education and interpretation opportunities about the Willow Flowage Scenic Waters Area and surrounding area.

GENERAL MANAGEMENT STRATEGY OF THE FLOWAGE

The Willow Flowage is part of a complex ecosystem, with a mix of biotic communities that provide habitat for a diversity of plants and animals. Forests will be managed using sustainable forestry practices and a combination of both active and passive management to provide ecological, economic, and social benefits. The forest is mainly comprised of aspen, swamp conifer (black spruce, tamarack, and cedar), pine (red, white, and jack), red maple, white birch, balsam fir, hemlock, and white spruce (Figure 2.1).

Forest management activities on the Willow Flowage have focused on maintaining age diversity, structural diversity, and wildlife habitat. Timber harvesting most commonly utilizes even-aged management, including regeneration harvests of aspen, maple, birch, balsam fir, and spruce and thinnings in red and white pine which provides a range of softwood and hardwood timber to the local and regional economy. Historical factors have influenced the current structure and composition of the Willow Flowage Scenic Waters Area and surrounding landscape, such as fire and various management activities since European settlement. Changes in the Willow Flowage vegetation since European settlement follow trends similar to many other dry forested habitats in northern Wisconsin. White pine is less abundant, while aspen and red pine have both increased in relative abundance.

MANAGEMENT AND DEVELOPMENT

The general cover types for the Willow Flowage are shown in Map 2.1 (appendix). For inventory purposes, forest stands are classified by their dominant cover type. This means that forest stands listed as aspen have 50% or more of their basal area in aspen trees. Most forest stands contain a mix of tree species. For example, an "aspen" area probably includes a mixture of red maple, balsam fir, and white birch. Therefore, two forest stands with the same dominant cover type may not have the same overall forest composition. Forest management on the property will maintain a diversity of forest cover types and age classes for forest health, aesthetic appeal, and wildlife habitat. There will be a diversity of age classes through efforts to achieve forest regulation, which spreads the work load and income from harvests over time with the goal of providing a constant and predictable flow of products to the market. This applies particularly to the aspen and pine cover types. Aspen will be maintained as the dominant cover type on the property. Red and white pine will be maintained through periodic thinning and planting when necessary. Understory white pine will be favored where it is present in mixed forests, especially in the areas adjacent to the flowage. In some stands, large red and white pine and white spruce will be maintained to provide seed, perch trees for raptors, and to maintain forest diversity. These larger, older trees may also provide structural attributes consistent with older forests.

Recreation management is also an important component of the Willow Flowage and will be implemented in a way that provides safe and sustainable recreational access while protecting the ecology and unique features of the forest.

The water resources in the Willow Flowage area, including the flowage itself, the Tomahawk River, and wetlands, streams, seeps and ponds on the property will be managed to protect water quality and provide habitat for a variety of fish, birds, insects and plants, including many rare species.

Endangered and threatened species and their habitats will be protected through integrated and adaptive management techniques.

Aesthetics management is also an important objective of the plan. Aesthetics are considered near high use recreation areas including the shoreline of the flowage and Tomahawk River, campsites, and trails. Aesthetic management will be implemented in the viewshed of the flowage and in the river corridor by designing management activities so they are not visible during leaf-on conditions.

LAND MANAGEMENT AREAS

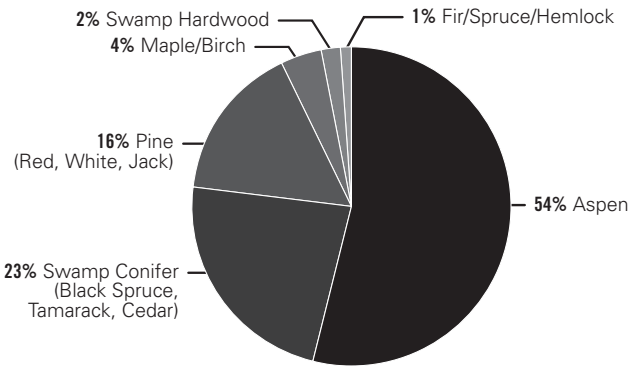
The Willow Flowage Scenic Waters Area has been divided into 5 land management areas: one Forest Production Management Area, two Native Community Management Areas, one Scenic Management Area, and one Special Management Area. (Map 2.2). Each management area describes a future desired condition that considers soils, topography, community type, and other factors which shape the objectives and management actions for each area.

Each management area has specific short-and long-term objectives that articulate the future desired condition based on the ecological capabilities. Because forests and landscapes change slowly, actions taken, or not taken, over the next 15 years may require 50-100 years to affect the forest as a whole. The long- and short-term objectives, as written, reflect the intent and ability to meet those objectives under ideal conditions. Factors such as growth rates, insects and diseases, destructive wild fires, or major wind events may impact the ability to meet the stated objectives.

Under the plan, there are approximately 17,633 acres scheduled for active forest management. This equates to 94% of the property's forested acreage. Approximately 6% percent, or 1,207 acres, of the entire property is designated to be passively managed allowing natural processes to predominate. Some of the passively managed areas are forested, but many have not been actively managed in the past due to their former passive management designations, or their steep, wet, or otherwise inaccessible nature.

Total Property Acres: 27,374
Forested Acres: 18,840
Non-Forested Acres: 3,342
Water: 5,192
Forested Acres Available for Management: 17,633
Forested Acres Not Scheduled for Management: 1,207

FIGURE 2.1 WILLOW FLOWAGE SCENIC WATERS AREA COVER TYPES, FORESTED



MANAGEMENT AND DEVELOPMENT

Short descriptions for the different types of management areas are below.

FOREST PRODUCTION MANAGEMENT

Management activities are focused primarily on the production of timber and other forest products.

NATIVE COMMUNITY MANAGEMENT

Management activities are intended to represent, restore and perpetuate native plant and animal communities, whether upland, wetland, or aquatic, and other aspects of native biological diversity. Although the production of forest products is not the primary focus, harvesting of forest products will occur.

SCENIC RESOURCES MANAGEMENT AREA

This classification protects, maintains and enhances for long-term public enjoyment, waters and lands having unique aesthetic qualities or outstanding scenic beauty, protected due to significant or special public use of the area. It is typical of lands with high value for water-based recreation and to scenic rivers and streams. Harvesting of timber products may occur in these areas.

SPECIAL MANAGEMENT

Unique management objective not included in other classifications.

TABLE 2.1 LAND MANAGEMENT AREAS

Area #	Land Management Areas (% of forest)	Acres
Forest Production Management Areas (86%)		**18,278**
1	Forested Backlands	18,278
Native Community Management Areas (9%)		**1,685**
2	Flowage Peninsulas	619
3	Tomahawk River Pines	1,066
Scenic Management Areas (5%)		**1,532**
4	Flowage Shoreline and Riverview	1,532
Special Management Areas (<1%)		**1**
5	Gravel Pit	1
	Total	**21,496**

FOREST PRODUCTION MANAGEMENT AREAS

The general management objective of a forest production area is the production of forest products. Forest production areas also meet a wide range of ecological, aesthetic, wildlife, and recreation objectives. The specific objectives for any given management area may vary depending on site capability, forest types, and societal needs. Desired associated benefits, desired future conditions, adjacent land uses, and local economic conditions all influence the objectives as well.

TABLE 2.2 FOREST PRODUCTION MANAGEMENT AREAS

Area #	Forest Production Management Areas	Acres
1	Forested Backlands	18,278

The General Forest Management Prescriptions by Primary Forest Type typically describe the management techniques to achieve the desired future conditions specified in each forest production management area.

FOREST PRODUCTION MANAGEMENT AREAS

FORESTED BACKLANDS

The management goal for this Forest Production Area is to establish and maintain a forest community of diverse forest types and age classes for the production of a variety of forest products, wildlife habitat (especially for deer and grouse), and biological diversity, and to offer a range of opportunities for dispersed, low-impact recreation in an aesthetic forest setting.

AREA 1 SUMMARY

- 18,278 acres
- Aspen is the dominant forest type (48% of state-owned land)
- Maintain deer and ruffed grouse habitat

FOREST AND WILDLIFE MANAGEMENT

The following are the specific management prescriptions, organized by timber-type, for this forest production management area.

ASPEN MANAGEMENT

Long-term Management Objectives

Maintain existing levels of approximately 9,000 acres in aspen and other associated early succession timber species in a mosaic of different stand age and size classes in patches ranging from 20 to 50 acres, with minor components of pine, spruce, hemlock, and oak, for the production of pulpwood and deer and grouse habitat.

Short-term Management Objectives

Increase the age and size class diversity of large even-aged aspen stands. Establish a random mix of different size class patches throughout the management area.

Authorized Management Activities

Activities include modified clear-cut harvests (coppice and standards), commercial thinning, mechanical site preparation, road construction and maintenance, and prescribed fire.

Management Prescriptions

1. Use even-aged management coppice and standards regeneration practices. (Aspen is regenerated by modified clear-cutting-retain longer-lived conifers like pine, spruce, and hemlock for aesthetic and habitat enhancement, and leave oak for acorn production for wildlife.)

2. Harvest on an average rotation age of 50-60 years depending on site quality. Some stands may be harvested earlier or later to establish aspen age class diversity.

3. Lay-out harvests to have irregular edges, with consideration for topography, to create a natural-appearing forest.

4. When needed for the regeneration of other associated early-succession timber species, such as jack pine or white birch, use mechanical measures or prescribed fire where feasible for site preparation.

PINE MANAGEMENT

Long-term Management Objectives

Maintain approximately 2,000 acres in red and white pine timber on suitable sites (i.e., sandier, drier soils) for the sustained production of saw timber and the enhancement of biodiversity, wildlife habitat, and aesthetics.

Short-term Management Objectives

On suitable sites, convert up to approximately 500 acres of aspen timber type to red, white, or jack pine and convert existing pine plantations to the appearance, structure, and function of a natural stand.

Authorized Management Activities

Activities include shelterwood harvests, thinning, planting, mechanical or chemical site preparation, prescribed fire, mechanical or herbicide release, and the construction and maintenance of roads.

Management Prescriptions

1. Where red or white pine is a viable understory component, use natural regeneration techniques (a two-step shelterwood silvicultural system). Plant pine if natural regeneration fails or it is not possible.

2. Red, white, or jack pine conversion and maintenance using site preparation as needed by mechanical or chemical means, or through the use of prescribed fire. Plant pine if natural regeneration fails or is not possible. Release pine by mechanical release or through approved forestry herbicides as needed.

3. Thin existing pine plantations on a recurring basis, according to prescriptions outlined in the DNR Silviculture and Forest Aesthetics Handbook, to create a structure similar to that of a naturally appearing pine stand.

RED OAK, FIR-SPRUCE, RED MAPLE MANAGEMENT

Long-term Management Objectives

Maintain approximately 850 acres in red oak, fir-spruce, and red maple timber types on suitable sites to enhance biological diversity and wildlife habitat.

Short-term Management Objectives
Convert selected sites from aspen to mid-successional species (red oak, fir-spruce, and red maple timber types).

Authorized Management Activities
Activities include shelterwood harvest, under-planting, mechanical or chemical site preparation, prescribed fire, mechanical or herbicide release, and the construction and maintenance of roads.

Management Prescriptions

1. Use a two-step shelterwood system (see Pine Management) to convert aspen stands to red oak, fir-spruce, and red maple and other associated mid- successional species. Under-plant white pine and red oak seedlings as needed.

2. Use mechanical or chemical means, as needed, or prescribed fire for site preparation to establish stand regeneration. Then, only as needed, use mechanical or chemical means to release the regenerated stand.

TABLE 2.3 FORESTED BACKLANDS CURRENT AND PREDICTED COVER TYPES

Cover Type	CURRENT		PREDICTED 50 YEAR	
	Acres	% Total	Acres	% Total
Forested Types				
Aspen	8,917	49%	8,821	48%
Swamp Conifer	3,985	22%	4,000	22%
Pine	2,093	11%	2,152	12%
Maple, Birch	593	3%	617	3%
Swamp Hardwood	300	2%	300	2%
Fir, Spruce, Hemlock	252	1%	250	1%
Total Forested	**16,140**	**87%**	**16,140**	**87%**
Non-Forested Types				
Lowland Brush/Grass	1,954	11%	1,954	11%
Water, Lakes, Streams	167	1%	167	1%
Upland Brush/Grass	17	1%	17	1%
Total Non-Forested	**2,138**	13%	**2,138**	13%
Total	18,278	**100%**	18,278	**100%**

LOWLAND FOREST AND OTHER WETLAND HABITAT MANAGEMENT

Long-term Management Objectives

Perpetuate the existing 4,000 acres of forested wetlands (including black spruce, tamarack, swamp hardwood, and swamp conifers) and areas of open bog, northern sedge meadow, and shrub swamp for wildlife habitat, aesthetics, and biological diversity of the property.

Authorized Management Activities

Passive management, shelterwood harvests, clear cut harvests, mechanical and herbicide release. Construction and maintenance of roads is permitted.

Management Prescriptions

1. No management activities will be conducted within non-commercial timbered swamps, lowland brush, or areas of open bog and marsh. (Note: these vegetation types make up about 88% of the wetland acreage.)

2. Regenerate commercial stands of swamp hardwood-primarily black ash-by limited harvesting (create partial openings or use shelterwood cuts) following the guidelines in the DNR Silviculture and Forest Aesthetics Handbook and in consultation with the wildlife biologist. (Note: the total commercial acreage is estimated to be less than 100 acres.)

3. Regenerate commercial stands of tamarack and black spruce by limited harvesting of stands (clear-cut) following the guidelines in the DNR Silviculture and Forest Aesthetics Handbook and in consultation with the wildlife biologist. (Note: the total commercial acreage is estimated to be less than 2000 acres.)

4. Do not cut white cedar.

GENERAL FOREST MANAGEMENT PRESCRIPTIONS

1. Emphasize forest diversity. Whenever possible, manage for those components that are missing or are underrepresented (e.g., oak or hemlock) on the private, industrial, and county forest lands surrounding the Willow Flowage Scenic Waters Area.

2. Conduct logging operations to minimize the scenic impact on recreational activities.

   a. Apply aesthetic considerations to maintain a "natural-appearing" landscape (i.e., lay-out timber sales in irregular shapes, and leave scattered trees or clumps of trees within clear-cut areas).

   b. Emphasize aesthetic management considerations along public roads or designated trails and other public use areas.

3. Maintain logging slash height less than 24 inches of the ground within 50 feet of town roads and pull slash at least 10 feet away from road edges.

4. Salvage timber after storm events.

5. Follow Best Management Practices for Water Quality (BMP's) when harvesting in and around wetlands, lakes, and streams. Provide a buffer area or stagger cuts around wetlands as needed to minimize impact on amphibians and reptiles that use both the wetlands and uplands.

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NATIVE COMMUNITY MANAGEMENT AREAS

Native community management areas are managed with the primary objective of representing, restoring, and perpetuating native plant and animal communities, whether upland, wetland, or aquatic and other aspects of native biological diversity. Management activities are designed to achieve land management objectives through natural processes (passive management) or management techniques that mimic natural processes (active management) when possible. Areas that do not have the desired community conditions but have a reasonable potential to be restored to those conditions are included in the native community classification.

Native community management areas also provide low-impact public access for uses such as hunting, hiking, bird-watching, photography, and nature study. Opportunities are also available for research, ecological interpretation, and education.

TABLE 2.4 NATIVE COMMUNITY MANAGEMENT AREAS

Area #	Native Community Management Areas	Acres
2	Flowage Peninsulas	619
3	Tomahawk River Pines	1,066
	Total	**1,685**

The General Forest Management Prescriptions by Primary Forest Type describe the active management techniques to achieve some of the desired future conditions in native community management areas. In some cases, special circumstances occur that require a modification to the General Forest Management Prescriptions in order to maintain and enhance those unique features. Examples of unique features commonly located in native community management areas include small acreages of High Conservation Value Forests (HCVF) (e.g. swamp hardwood stands and wetland complexes), rustic campsites, and unique scenic, geological, and cultural features.

FLOWAGE PENINSULAS

Long-term Management Objectives
Maintain a managed native forest community with a dominance of red and white pine. These stands will be well represented by large and relatively old trees (older than their traditional rotation age). This community has much of the structural diversity typical of natural old forests, including dead trees, snags, tip-up mounds and a substantial amount of coarse woody debris.

Short-term Management Objectives
Convert stands dominated by aspen and other short lived species to red and white pine and other longer lived species. Encourage large diameter trees and other old forest characteristics. Maintain the scenic quality of all shoreline areas.

Authorized Management Activities
Activities include selective harvesting or thinning, prescribed fire, hand planting, moderate salvage operations, and construction and maintenance of logging roads. Note: Management activities are primarily directed toward developing and maintaining compositional, structural and functional attributes of old forests.

Management Prescriptions
As appropriate for the specific site and timber stand conditions, the following management prescriptions, which simulate natural processes, will be used to establish and maintain the forest community:

1. In developing stands, conduct light thinning harvests to allow pine to grow and develop large diameter characteristics quickly. Retain dead snags, live cavity trees and woody debris to the degree practicable.

2. Before, but usually near, a stand's pathological maturity age, regenerate the stand by a combination of prescribed fire and harvest (leaving a portion of the mature trees as reserves that will not be harvested). Mechanical and/or chemical site preparation techniques are authorized to establish pine regeneration. Prescribed fire should be used early and periodically to eliminate undesirable competition from species like aspen and red maple.

3. In stands that do not require mechanical scarification to establish regeneration, conduct harvesting operations primarily on frozen ground to minimize soil compaction and erosion, and to avoid conflicts with warm season recreation activities.

AREA 2 SUMMARY

- 619 acres
- Dominated by large diameter red and white pine
- Actively managed to perpetuate and encourage large pine

TABLE 2.5 FLOWAGE PENINSULAS CURRENT AND PREDICTED COVER TYPES

Cover Type	CURRENT		PREDICTED 50 YEAR	
	Acres	% Total	Acres	% Total
Forested Types				
Pine	290	47%	374	60%
Aspen	153	25%	51	8%
Maple, Birch	102	16%	120	19%
Lowland Brush/Grass	54	9%	54	9%
Swamp Conifer	20	3%	20	3%
Total	**619**	**100%**	**619**	**100%**

4. Restrict wheeled or tracked equipment from operating within 15 feet of the ordinary high water mark of the flowage or wetlands.

5. Remove hazard trees within designated public use areas.

6. Consider active native understory restoration.

TOMAHAWK RIVER PINES

The Tomahawk River Pines area has two sites, the Upper Tomahawk River Pines site, and the Lower Tomahawk Pines River Site. The majority of this area is designated as a State Natural Area. The area is comprised of a mix of upland, wetland, and aquatic community types.

Management Objective
To preserve the area's native communities in a natural condition with minimal human disturbance. The communities include northern dry-mesic forest (dominated by large red and white pine), northern wet forest (dominated by black spruce and tamarack), alder thicket, and slow, warm hard-water streams.

UPPER TOMAHAWK RIVER PINES SITE
Authorized Management Activities
Activities include passive management (i.e., no timber harvesting) and control of invasive exotic species by means approved by the Department.

Management Prescriptions
1. Erect and maintain boundary signs ("state natural area" and "private land ahead").

2. Periodically search for invasive exotic species and remove according to approved guidelines.

3. Close and berm any roads leading into the natural area, and monitor for unauthorized motor vehicle use.

4. As needed, pick up litter and restore sites that have been damaged by recreational use

Recreation and Public Use
The Native Community Management Area of the Tomahawk River Pines State Natural Area does not have a recreational setting designation. Recreation facilities shall meet the same standards as those of the Scenic Resources Management Area.

Canoeing is the predominant recreational activity along the river corridor. Shoreline camping is not allowed within the designated natural area. Designated trails will not be developed. Motor vehicle and horse use are not allowed. Hunting, trapping, fishing, and hiking are allowed.

LOWER TOMAHAWK RIVER PINES SITE
Management Prescriptions
Improve the existing primitive road to a lightly developed road from the parking area to the water to serve as a carry-in boat launch. Improvements will include adding a gravel base and a small vehicle turn around area. Parking will not be allowed at the launch turn around. All other primitive roads will remain closed to vehicles.

Use selective thinning and prescribed burning to promote the health and vigor of the red pine and to promote pine regeneration. Utilize prescribe burning (in late summer/early fall) to reduce the thick hazel brush understory and to prepare seed beds for pine regeneration. Develop management prescriptions in the mixed forest near the parking area, currently comprised of aspen, oak, and pine, to meet the area's objectives.

Retain designation of the Lower Tomahawk River Pines State Natural Area.

AREA 3 SUMMARY

- 1,066 acres
- Natural origin, large diameter pine present
- Natural white pine conversion
- Two SNA designations
- Soils vary from sand to loamy sand
- Two management sites

TABLE 2.6 TOMAHAWK RIVER PINES CURRENT AND PREDICTED COVER TYPES

Cover Type	CURRENT		PREDICTED 50 YEAR	
	Acres	% Total	Acres	% Total
Aspen	231	22%	141	13%
Lowland Brush/Grass	354	33%	354	33%
Pine	201	19%	300	28%
Swamp Conifer	239	22%	230	22%
Water	41	4%	41	4%
Total	1,066	**100%**	1,066	**100%**

Lower Tomahawk
River Pines
STATE NATURAL AREA
WISCONSIN DEPARTMENT
OF NATURAL RESOURCES

SCENIC MANAGEMENT AREAS

Most of the shoreline is designated as Scenic Resources Management Area. This area includes a 200 foot buffer on each side of the lower Tomahawk River, all islands, and a 300 foot strip along the flowage shoreline landward of the ordinary high water mark.

Long-term Management Objectives
Promote, maintain and enhance a natural, wild appearing landscape around the flowage and along the lower Tomahawk River and in other designated public use areas. Provide nesting and brood rearing areas for eagles, osprey and great blue heron. The vegetation will be characterized by a mature forest dominated by long-lived species, especially large diameter (more than 12 inch diameter breast height (DBH)) red and white pine.

Short-term Management Objectives
Maintain and enhance existing sites that meet the long-term objective conditions, and convert as rapidly as practicable the stands dominated by aspen and other short-lived species to red and white pine and other longer lived species.

Authorized Management Activities in Transition Areas (areas not in the desired future condition)
Activities include selective harvesting, hand tree planting, prescribed fires, thinning and routine timber stand improvement activities (i.e. pruning, non- commercial thinning, crop tree release and elimination of competing cull trees and shrubs) and construction and maintenance of logging roads.

Authorized Management Activities in Climax Forest Areas (areas at the desired future condition)
Activities include passive management, limited selective harvesting, moderate salvage, and restoration management following major storm damage, and the construction and maintenance of logging roads.

Management Prescriptions
As appropriate for the specific site and timber stand conditions, the following management prescriptions will be used:

1. On upland sites perform selective harvesting of aspen until long-lived species like red and white pine and red maple become established. This may range from 60 to 100 years. Only limited selective cutting to maintain the stand will be done after the climax forest is established, except for salvage following major storm damage.
2. Lowland sites generally would not be harvested.
3. Maintain 60 square feet or more of basal area per acre of trees 5 inch DBH and larger in harvest areas.
4. Follow Best Management Practices for Water Quality (BMPs) to minimize soil compaction and erosion. Whenever possible avoid conflicts with warm season recreation activities.
5. Restrict wheeled or tracked equipment from operating within 15 feet of the ordinary high water mark.
6. Locate logging roads and decking areas at least 200 feet landward from the flowage or wetlands (defined by the ordinary high water mark). Schedule stand harvest intervals at a minimum of 10 years.
7. Retain snag trees, live cavity trees, dead and downed logs and other coarse woody debris to promote important habitat for reptiles, amphibians and other wildlife.
8. Remove hazard trees within designated public use areas.

TABLE 2.7 SCENIC MANAGEMENT AREAS CURRENT AND PREDICTED COVER TYPES

Cover Type	CURRENT		PREDICTED 50 YEAR	
	Acres	% Total	Acres	% Total
Forested Types				
Aspen	547	36%	250	16%
Pine	383	25%	648	42%
Swamp Hardwood	69	5%	60	4%
Maple, Birch	100	7%	141	9%
Swamp Conifer	30	2%	30	2%
Total Forested	**1,129**	**74%**	**1,129**	**74%**
Non-Forested Types				
Lowland Brush/Grass	333	22%	333	22%
Water	70	5%	70	5%
Total Non-Forested	**403**	**26%**	**403**	**26%**
Total	**1,532**	**100%**	**1,532**	**100%**

SPECIAL MANAGEMENT AREAS

The Special Management Area located in the southeastern part of the property is a gravel pit that was used by the previous landowners to provide gravel for logging roads. The existing stockpile of approximately 2,000 cubic yards of high-quality gravel will be used. Additional gravel extraction at this site is authorized. Following extraction and reclamation, the Special Management Area classification will expire, and the site will become part of the Forest Production Area. Restoration will use native plant species.

STATE NATURAL AREA DESIGNATIONS

State Natural Areas (SNAs) are part of a statewide system of sites identified for the purposes of ecological research, education, and to assure the full range of ecological diversity for future generations. After the designation of land management areas, and identifying their specific resource management objectives and prescriptions, the master planning team examined opportunities to further protect areas with exceptional natural features. Bureau of Natural Heritage Conservation staff evaluated sites that could contribute to critical habitat for rare species, provide ecological reference areas, or which contain significant geological or archaeological features.

STATE NATURAL AREA PROGRAM OBJECTIVE

Locate, establish, and preserve a system of SNAs that as nearly as possible represents the wealth and variety of Wisconsin's native landscape for education, research, and long-term protection of Wisconsin's biological diversity for future generations.

DESIGNATION PROCESS AND AUTHORITY

The process for selecting and designating SNAs is determined by cooperative efforts with the Bureau of Natural Heritage Conservation. SNAs are considered overlays to Land Management Areas. In this way, the same piece of land can achieve the goals of two different Department programs. Activities for each SNA are the same as the land management objectives and prescriptions as well as the recreation uses designated to meet forestry goals. For example, a SNA located within an area managed for white pine will follow the objectives for that land management area, rather than a separate SNA management plan. The forest management and recreation uses that were determined by the master planning team (Forestry, Wildlife, Natural Heritage Conservation, Fisheries) and in consultation with the public, would occur with or without SNA designation.

The Wisconsin State Natural Areas Program oversees the establishment of SNAs and is advised by the Natural Areas Preservation Council.

STATE NATURAL AREA MANAGEMENT AND RECREATIONAL ACTIVITIES

The State Natural Area designation does not change the underlying recreation management activities outlined in this master plan for each land management area. There are no additional management prescriptions associated with these State Natural Areas.

WILLOW FLOWAGE SCENIC WATERS AREA NATURAL AREAS

The Willow Flowage has two SNA designations within the boundary: the upper Tomahawk River Pines and the Lower Tomahawk River Pines.

TABLE 2.8 STATE NATURAL AREAS

SNA Name	Management Area		Acreage
Upper Tomahawk River Pines	Area 3	Upper Tomahawk River Pines Site	844
Lower Tomahawk River Pines	Area 3	Lower Tomahawk River Pines Site	295

RECREATION MANAGEMENT

RECREATION MANAGEMENT AND FACILITIES

The recreation management objective for the core flowage area is to provide opportunities for dispersed, low-impact recreation-particularly water-based recreation-and for the enjoyment of the area's natural scenic beauty and solitude. Hunting, trapping, and fishing are traditional uses and continue according to season regulations.

Recreational Use Classification

The flowage and the lower Tomahawk River corridor are managed to provide a Type 3 Recreational Use Setting with an emphasis on a feeling of remoteness and solitude, a natural, undeveloped appearance, and a low level of facility development.

The Type 3 Recreational Use Setting subclassification is assigned to the entire Scenic Resources Management Area. The Native Community Management Area portion of the shore does not have a recreational setting designation; however, campsites or other recreation facilities shall meet the same standards as the Scenic Resources Management Area.

Camping on the Flowage

Camping opportunities are at watercraft (motorized or nonmotorized) accessible, or walk-in accessible semi-primitive campsites on the flowage. Other types of camping opportunities are currently not provided. The Department will identify and designate at least 2 existing campsites on the flowage and allow drive-in access in close proximity to the sites. Camping is allowed only at designated campsites and all campsites are available to campers on a first-come, first-served basis. Camping fees are waived per NR 45.10(1)(k).

Camping is restricted to a maximum stay of 10 days. Once occupied, the site cannot be left unoccupied for more than one night. Sites open for camping have a box latrine, a fire ring, a picnic table, and a sign designating the site as open for camping. Thirty single-unit campsites and up to seven group campsites will be provided.

The campsites may periodically rotate between use and non-use status over time, as warranted by environmental or other conditions. Campsites may also be closed, permanently or temporarily, to protect threatened, endangered, or sensitive species and their habitats. The property manager may close (temporarily or permanently) and relocate campsites to new locations as needed. During a temporary closure of campsites, the number of campsites open for use may be less than 30 single unit and seven group sites.

The Department will seek "approved comparable compliance" from the Department of Health and Family Services where the natural conditions exist that do not permit literal application of the requirements of Chapter HFS 178 for campgrounds.

Remote Single-Unit Campsites

The Department will maintain 30 single-unit semiprimitive campsites on the islands and shorelines of the flowage. A single unit campsite may be occupied by a family party or a party of up to six unrelated persons. A fire ring, picnic table, and box latrine will be provided at each site. One or two of the single-unit campsites will be accessible for use by persons with disabilities.

Remote Group Campsites

Seven semi-primitive group campsites will be established and maintained on the islands and shorelines of the flowage. The group campsites may be occupied by parties of up to 15 persons. Improvements provided at each site shall include a fire ring, picnic table, and box latrine. One of the group sites will be accessible for use by persons with disabilities.

Remote River Campsites

An additional 4 campsites will be constructed on the lower Tomahawk River to provide accommodations for paddlers and boaters. The river campsites will be similar in design to the existing shoreline campsites on the Willow Flowage and will provide users with a picnic table, a fire ring, and a box latrine.

Campsites will only be accessible by water craft and length of stay is limited to one night.

Campsite Maintenance

All designated campsites shall be regularly inspected for litter and maintenance needs throughout the camping season. Campsites shall be periodically inspected for public safety hazards, such as dead trees, and the hazards removed or the site closed.

Campsite Development

Campsites shall be located with consideration for minimizing environmental impacts and providing solitude for campers. New or redeveloped campsites shall be located as far away from the water's edge as practicable to reduce bank and vegetation impacts.

Appropriate shore/bank protection measures, such as rip-rap or steps and railings, may be placed at campsites to minimize erosion from human use.

A well and handpump will be provided near one or both of the boat landings located on Willow Dam Road. If the well and handpump are not located on state land, the Department will develop a cooperative agreement with WVIC for placement on their land.

Management activities for campsite development or rehabilitation may include planting, clearing trees or brush, minor grading, and erosion control measures. All developments, including environmental protection measures, shall meet the standards for this recreational use setting.

Foot Trails
There are two designated foot trails:

Nature Trail
A nature trail of about 2.2 miles is located near the curve in Willow Dam Road immediately north of the Sandy Landing. The trail is maintained as a moderately developed trail and is disabled accessible. Wayside interpretive panels, rest stops with benches, and directional signs are placed at appropriate locations along the trail. The trailhead includes an information kiosk and a 15-car parking lot.

Hiking Trail
A loop primitive hiking trail of about 5.5 miles is located in the Native Community Management Area near Skunk Lake off of from Cedar Falls Road. The trailhead, with an informational kiosk, will be located at a six-car parking lot approximately 1 mile west of Cedar Falls Road. The parking area will be enlarged and improved for hikers and other day users of the flowage.

Boat Landings
Public boat access provided by this plan enhances the recreational experience on the flowage. The east side boat access locations, near the Willow Flowage dam, offer two improved landings and paved parking lots to accommodate vehicles with trailers. The Willow's other landings, including Sportsmans, Talbots, Jerrys, and McCord Road, provide rustic access roads and parking accommodations for up to eight vehicles with trailers at each location. The Department proposes to improve Sportsmans Landing to include an improved one-lane access road, concrete boat ramp, and a larger parking lot to accommodate up to ten vehicles with trailers. Under this plan, the Department will work with partners and stakeholders to consider the addition of rustic, natural appearing recreational equipment at the Sandy Boat Landing. A small, unimproved boat landing located off of Iron Gate Road is available for use as conditions allow.

Explore options to develop a deep water boat landing on the southwest side of the flowage along Iron gate road. Specific location and design would be based on the site evaluation.

Toilet Facilities
Toilet facilities are currently provided at the Dam Landing parking lot. The Department will develop a similar toilet facility at the Sandy Landing located approximately 1/3 mile north of the Willow Flowage dam. Staff from WVIC will be consulted during the planning process to determine if changes to the FERC-approved recreation plan are required.

ATV/UTV Trails
Motorized trails are well established on the Willow, providing approximately 5 miles of ATV/UTV trails and an additional 8 miles of routes.

Management Objectives
- Provide trail riding opportunities as part of a regional trail network; and, as is feasible and compatible with other property objectives, support expansion of the regional trail networks.
- Maintain the existing 5 miles of ATV/UTV trails.
- Re-route approximately 1 mile of trail near the junction of Willow Dam road and County Highway Y to extend a portion of trail and reduce the amount of travel on Willow Dam road.
- Expand and re-route the existing ATV/UTV trail including approximately one mile segment in the Town of Minocqua.
- Designate approximately ½ mile of existing snowmobile trail on Department land originating at County Highway L just south of Swamp lake road heading West over the Tomahawk River in the Town of Nokomis. The trail segment is dependent on a connector trail yet to be established. Use would only be implemented if a feasible trail connector can be made west of the Departments ownership and only if the use of the trail would not compromise the existing snowmobile trail. The Department does own a public use easement across private lands, but the easement does not include use for ATV/UTV unless agreed upon by both parties.
- Allow ATV/UTV operation on the Department-owned portions of Sportsmans Landing Road and Jerrys Landing Road. These roads originate on Oneida County Forest land where ATV/UTV operation is already authorized.

HUNTING AND TRAPPING

Hunting and trapping are major recreational pursuits at the Willow Flowage Scenic Waters Area. Diversity of wildlife habitat and abundant populations of game animals are available. Popular game species for hunters include deer, bear, Wild Turkey, upland birds and waterfowl. Hunting is allowed along all trails and forest roads except in designated campsites.

Hunters desire wildlife habitat capable of producing good populations of wildlife, while staying free from excessive human disturbance. It is important to provide multiple opportunities and to disperse hunters as much as possible for safety, to enhance users' experience and to avoid user conflicts. The Willow Flowage Scenic Waters Area will continue to accom-

modate hunting throughout all of the open hunting seasons. Regulations governing hunting and trapping are outside the scope of the master plan.

Opportunities exist for hunters to camp in remote areas of the property. This dispersed camping experience is offered during the gun-deer season by permit only. The remote locations do not include any amenities such as water or toilets.

Management Objectives

- Continue to offer abundant opportunities for big and small game hunting and trapping.

Management Prescriptions

- Continue to maintain public access for hunting.
- Provide opportunities for non-motorized hunter access, and remote hunting experiences.
- Provide information about hunting rules and opportunities at information facilities, in publications or online, taking care not to over-promote specific locations.
- Work in cooperation with staff from the Bureau of Wildlife Management to support and maintain diverse habitat for wildlife, and to protect rare, endangered and threatened species as described in the Resource Management Section of this plan.

FISHING

Fishing enthusiasts pursue warm water species at the Willow Flowage Scenic Waters Area. Developed and undeveloped landings provide access to water resources throughout the forest. The Willow Flowage Scenic Waters Area will continue to provide opportunities for fishing enthusiasts. Fishing regulations are outside the scope of the master plan.

Management Objectives

- Continue to support and provide public opportunities for fishing.
- Maintain public access to water resources throughout the forest for fishing.

Management Prescriptions

- Maintain or develop reasonable access to water resources and traditional fishing areas.
- Provide information about fishing rules and opportunities at information facilities, in publications or online, taking care not to over-promote specific locations.
- Work in cooperation with the Bureau of Fisheries Management on fish habitat management at the Willow Flowage Scenic Waters Area.
- Acquire property or establish land use agreements to enable recreational access to lakes or other water resources within the Willow Flowage Scenic Waters Area as resources and opportunity allows.

PARKING AREAS

There are 13 parking areas throughout the property (approximately 150 stalls) to facilitate access for hiking, hunting and fishing, and recreational facilities. Some locations serve multiple uses as trail heads, boat landings, vistas, scenic overlooks, or places for berry picking, star gazing, or wildlife viewing.

Management Objectives

- Maintain parking facilities throughout the property to provide public access.

Management Prescriptions

- Maintain existing parking areas at key locations to provide access to forest and water resources.
- Maintain parking areas to a level of development appropriate to land management classifications and recreational use setting according to NR44 standards.
- Enhance or renovate trail head/gravel surfaced parking access points and provide amenities as appropriate to use and demand.
- Install information facilities and signage at access points throughout the property to enhance visitor experience and to reinforce the Willow Flowage Scenic Waters Area identity.

TABLE 2.9 PARKING AREAS ON THE WILLOW FLOWAGE SCENIC WATERS AREA

Parking Lot Name/Location	Number of Stalls	Surface
Dam Landing	45	Paved
Sandy Landing	23	Paved
Nature Trail	15	Paved
Hiking Trail	8	Gravel
Jerrys Landing	8	Gravel
Sportsmans Landing	8	Gravel
Talbots Landing	8	Gravel
McCord Road Landing	8	Gravel
Second Gate (Iron Gate Road)	4	Gravel
Willow Dam Road Canoe Landing	4	Sand
Swamp Lake Road Canoe Landing	6	Gravel
Prairie Rapids Canoe Landing	4	Sand
Lower Tomahawk River Pines SNA	8	Gravel

REAL ESTATE MANAGEMENT

REAL ESTATE ACQUISITION POLICIES

All property purchases are on a willing seller basis. As required by state and federal laws, the Department pays just compensation for property, which is the estimated market value based on an appraisal. At times, it is in the interest of the Department and the landowner for the Department to acquire only part of the rights to a property, or an easement. The Department has a number of easement options available to address these situations.

Landowners within the property boundary may be contacted periodically by Department staff to explain the Department's land acquisition program and to see if they have an interest in selling their property. Acquisition priorities vary from year to year and are based on a variety of factors, such as resource management or recreation needs and available funding.

AIDES IN LIEU OF TAXES

Under current law (Wis. Stats. 70), land acquired by the DNR is not subject to property taxes. Instead, DNR makes annual payments in lieu of taxes (PILT) to municipalities for the parcels that the DNR owns within those municipalities. More detailed information on how the Department pays property taxes may be found by visiting dnr.wi.gov and searching "PILT".

EASEMENTS, ACCESS PERMITS, AND LAND USE AGREEMENTS

Easements provide access across state property for utilities, town roads, or county highways. Easements are permanent and would continue to be upheld under the master plan. Access permits provide access across state property to private ownership within the boundary. Land use agreements provide for a variety of uses on state property, such as snowmobile trails and other recreational facilities open to the public. The Department has a long history of cooperation in managing and maintaining public recreational and community facilities and access.

The Willow Flowage Scenic Waters Area supports land use agreements with public and private partners that provide public benefits. Land use agreements can be used to facilitate agreements with partners to provide services that meet the goals and objectives of the master plan. Existing easements, land use agreements, and access permits will be reviewed periodically for compliance. The Department may grant new agreements, permits or easements where they do not conflict with the master plan's goals and objectives. All such requests will be evaluated on an individual basis, and follow Department standards for review approval.

Pursuant to NR 1.415 the Department is proposing to redesignate approximately 3 miles of Department easement lands in the Town of Nokomis, Oneida County from the Bearskin State Trail to the Willow Flowage Scenic Waters Area, which will facilitate and provide for better management of the property as part of the Willow Flowage.

Acquisition Goal for the Willow including the Dick Steffes Unit is 37,503 acres.

This reflects a 380 acre reduction from the current 2000 master plan, of which 240 acres is currently state owned. The boundary contraction does not include any lands with water frontage on the Tomahawk River. The department may retain a small section of land or a public access right in the contraction area, if needed, to provide access to existing public lands from an existing road network.

ROAD MANAGEMENT

Department owned and managed roads, skid trails and landings are all part of the property transportation system. Roads provide access for activities such as managing timber, improving fish and wildlife habitat, fighting fires, and recreational use and access. In addition, a variety of County and Town owned roads connect to DNR roads to provide direct access as well as connectors to DNR roads.

County and town roads bordering or passing through the property are the management responsibility of these respective jurisdictions and are not covered by this road management plan.

Approximately 11 miles of DNR managed roads are planned to be opened and maintained permanently or seasonally for public vehicle use. There are approximately 80 miles of permanent and temporary forest roads closed to public vehicles and used for management purposes. These roads are all classified as 'primitive' according to the NR44 road classifications.

Of the 80 miles of closed roads, 29 miles will be maintained in a condition to allow hunter walking access. Maintenance typically includes woody brush control and mowing at appropriate time intervals.

ROAD MANAGEMENT OBJECTIVES

- Provide a network of roads on the Willow Flowage that meet land management and recreation objectives, while minimizing environmental impacts.
- Maintain roads to the designated road standards and in a sustainable condition.
- Maintain scenic values along public road corridors in balance with management area objectives.

GENERAL ROAD MANAGEMENT PRESCRIPTIONS

- Maintain visibility and clearance along roads that is adequate for the road classification and use.
- Restore roads used in timber harvest operations to their previous or better condition after harvesting is completed.
- Inspect permanent roads for degradation and develop a maintenance schedule.
- Monitor and manage the spread of invasive plant species along roads using Wisconsin's Forestry Best Management Practices for Invasive Species. Control invasive species using appropriate management techniques including but not limited to, herbicides, burning, cutting and mowing.
- Implement Wisconsin's Forestry Best Management Practices for Water Quality as needed to prevent direct impacts to lakes, streams, wetlands and groundwater.
- All non-DNR road right-of-ways will continue to be controlled and maintained by their current operator (state, county, or town).

The property manager may close a road to public use if it becomes degraded, unsafe, or for law enforcement reasons.

ROAD CLASSIFICATION

There are several types of road classifications outlined in NR 44.07(3). The classifications reflect a range of development and maintenance standards. Road classifications include primitive, lightly developed, moderately developed, and fully developed.

Primitive Roads are temporary or permanent seasonal roads with a maximum sustained cleared width normally not exceeding 12 feet, little or no roadbed grading, minimal cut and fill, a surface of primitive or native material.

Lightly Developed Roads are temporary, permanent seasonal, or permanent all–season roads which are primarily single lane with a maximum sustained cleared width normally not exceeding 16 feet, are lightly to well–graded with minimal cut and fill, are surfaced with primitive, native or aggregate materials except in limited special use situations where asphalt may be used, and have a maximum speed design of 15 mph.

Moderately Developed Roads are permanent seasonal or permanent all–season roads which typically are two–lane, but may be one–lane, have a maximum sustained cleared width normally not exceeding 45 feet for two–lane and 30 feet for one–lane, a well–graded roadbed and may have moderate cuts and fills and shallow ditching, have a surface of aggregate, asphalt or native material, and a maximum design speed of 25 mph.

Fully Developed Roads are permanent all–season roads with a cleared width normally of 50 feet or more, a roadbed with cuts and fills as needed, an aggregate, asphalt or other paved surface and designed for speeds exceeding 25 mph.

- DNR managed roads are closed to ATVs unless designated for such use.
- Temporary roads used for forest management activities will generally remain open for public use during the active periods of operation, typically two to four years. The road may remain open for a period of up to 2 years for firewood gathering if the road is in a condition for vehicle use, otherwise the road will be closed after the management practice is complete.
- Permanent roads open to the public will not be closed to public use if used for timber management unless significant safety issues occur. Roads used for timber management will be signed during active use appropriate to the scale of the operation.

SPECIFIC ROAD MANAGEMENT PRESCRIPTIONS

Iron Gate Road

Iron Gate road will be maintained at its current development level as a moderately developed road with a gravel base.

Iron Gate road will be opened year round for public use. Licensed vehicles and ATV/UTVS are authorized . Snowmobiles are authorized when conditions allow. The gates will remain in place and only be used to close the road during times of spring break up.

Access control structures, ranging from signs, boulders, berms or gates, may be placed along Iron Gate Road, as needed, to mitigate use of spur roads for motorized purposes. Periodic maintenance will be performed to sustain the road system integrity but no snow-plowing will occur.

Skunk Lake Road

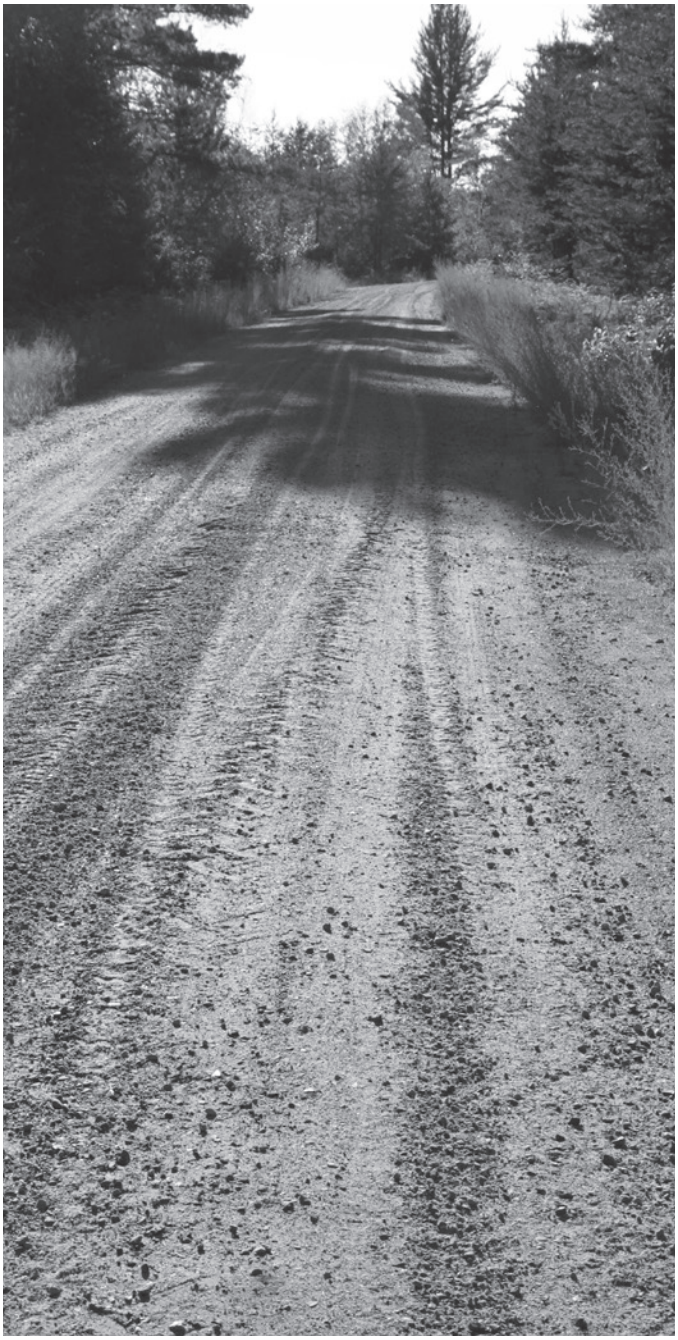
Re-designate approximately 1 mile of skunk lake trail to an open public road originating at Cedar Falls Road. Improve and maintain the road in a lightly developed condition. The road will be open year round, except during periods of spring breakup and periods of high snow. Construct a parking lot at the end of the road to accommodate three to six vehicles and provide a turn around as site conditions allow.

West Side fire lane.

Open approximately 1 mile of West Side Fire lane originating at Willow Road including a short segment heading west to BCPL lands. Maintain road in its current development level of lightly developed. Install an access control structure to restrict public vehicle use to the north. Road will be open for motorized use year round, except during periods of spring breakup and periods of deep snow. Allow ATV and UTV use as long as Willow Road remains an ATV route designated by the town. BCPL plans to provide public vehicle access (not including ATVs/UTVs) on an existing road of approximately 1.5 miles to make a loop road back to Willow town Road.

Swamsauger Road

Open approximately 1.2 mile of existing road originating from Manhardt Road. Install an access control structure at the end of DNR ownership and a small turn around and parking area. Work with BCPL to provide additional public vehicle access connecting to DNR roads.



CLOSED PERMANENT AND TEMPORARY PRIMITIVE ROADS

Approximately 60 miles of closed primitive roads are on the Willow. These are generally roads used for forest management purposes and are in varying stages of use from recent to historical abandoned roads. Approximately 20 miles of the primitive roads will not be maintained but may be used and improved when needed for timber management. Approximately 50 miles of closed primitive roads will be maintained permanently for recreational uses, including snowmobile and hunter walking access. Maintenance typically includes woody brush control and mowing at appropriately 3-5 year intervals. If a temporary primitive road is improved during a timber sale, it can be re-designated to a permanent primitive road for the purpose of hunter walking access.

AESTHETIC MANAGEMENT FOR ROADWAY CORRIDORS

Forest management techniques can be adjusted along roadways on the forest to ensure the long-term maintenance of scenic conditions is proportionate to the road's level of public use. The DNR Silviculture and Forest Aesthetics Handbook distinguishes three types of aesthetic management zones that can be applied along roadways described as Class A, Class B, and Class C aesthetic management zones. Most roads within the Willow Flowage Scenic Waters Area fall under the Class C Aesthetic Management Zone.

Class A Aesthetic Management Zones include travel routes with heavy to medium use or roads where the use is for the specific purpose of enjoying scenery. These areas should be developed and maintained to the greatest scenic potential for public enjoyment.

Class B Aesthetic Management Zones include a variety of roads where public traffic use is generally light to medium. Scenic attractiveness is of equal importance and is in balance with other land management objectives.

Class C Aesthetic Management Zones include roads primarily used for management access and where public use does not occur, is infrequent, or is primarily for activities such as hunting, fishing, or berry picking. Aesthetics are considered in the management along these roadways; however, they are secondary to the prescribed land management activities for the area.

TABLE 2.10 SUMMARY OF PLANNED PERMANENT PUBLIC OPEN ROADS

	Development Level	Status	Current (miles)	Proposed (miles)
Iron Gate (Hwy Y to Gate 2)	Moderately Developed	Open	2	8
Iron Gate (Gate 2 to McCord Rd)	Lightly Developed	Open Seasonal	6	0
Skunk Lake	Lightly Developed	Open	0	1
West Side Fire Lane	Lightly Developed	Open	0	1
Swamwsauger	Lightly Developed	Open	0	1
Total			**8**	**11**

TABLE 2.11 SUMMARY OF PLANNED CLOSED ROADS

	Development Level	Status	Current (miles)	Proposed (miles)
West Side Fire Lane	Lightly Developed	Closed	2	1
Cedar Falls Fire Lane	Lightly Developed	Closed	2	2
Primitive Permanent Roads (Hunter/Walker Paths)	Primitive	Closed	13	29
Primitive Temporary and Abandoned Roads	Primitive Abandoned	Closed	60	44
Total			**77**	**76**

NON-METALLIC MINING

The Department may use gravel, sand, fill dirt, or other fill material from Department-owned lands for Department use. Under certain circumstances other government bodies or agencies may also have access to these materials. Section 23.20 of the Wisconsin Statutes states, "the Department may permit any town, county, or state agency to obtain gravel, sand, fill dirt or other fill material needed for road purposes from any Department-owned gravel pit or similar facility if this material is unavailable from private vendors within a reasonable distance of the worksite. The Department shall charge a fee for this material commensurate with the fee charged by private vendors."

The Willow Flowage Scenic Waters Area has one gravel pit (sand mine) within its boundary. Any non-metallic mining in the Willow Flowage Scenic Waters Area, whether by the Department or as authorized under s. 23.20, Stats., is regulated under the reclamation requirements of NR 135, Wis. Adm. Code, - except for sites that do not exceed one acre in total for the life of the mining operation or are otherwise exempt under s. NR 135.02(3), Wis. Adm. Code. Site reclamation under NR 135 is administered by the county, or in some cases municipal, regulatory authority.

NR 135 requires mining sites to be reclaimed according to a reclamation plan to meet uniform state reclamation standards. Most Department of Transportation (DOT) projects are exempt from NR 135 but subject to WisDOT's own mining site restoration requirements as provided in s. NR 135.02(3)(j), Wis. Adm. Code. In general, DOT and its contractors would be discouraged from non-metallic mining on the state forest property. The use of state-owned land by the state and municipalities for gravel pits and sand will continue on a case-by-case basis. Non-metallic mining at new sites will not be permitted where a Geological Feature of Importance has been identified.

CULTURAL RESOURCES MANAGEMENT

The cultural resources management plan for the Willow Flowage Scenic Waters Area recognizes that cultural resources, such as archaeological sites, historic structures, and tribal heritage areas, are significant resources and provide important clues to the historic use of state forest lands.

TRIBAL RESOURCES

The Willow Flowage Scenic Waters Area lies within the ceded territory of the Chippewa Tribes.

Ceded Territories and Tribal Use

At the time of the arrival of Europeans in North America, Native American tribes were recognized as sovereign nations. The Ojibwe Tribes ceded some lands in the northern one-third of Wisconsin to the United States Government in the Treaties of 1837 and 1842. In those treaties, they reserved their rights to hunt, trap, fish, and gather within various publicly-owned lands. These treaty rights, affirmed under Lac Courte Oreilles Indians v. State of Wis., 775 F. Supp. 321, 323 (W.D. Wis. 1991), are currently being exercised and implemented by the Ojibwe Tribes for subsistence, medicinal, cultural, religious and economic purposes.

WISCONSIN VALLEY IMPROVEMENT COMPANY'S ROLE

The Willow Reservoir lies within WVIC's Federal Energy Regulatory Commission (FERC) Project boundary. In compliance with WVIC's FERC license (76 FERC ¶ 61,050), WVIC has implemented a Historic Resources Management Plan for Project Lands and Waters (HRMP) to guide decisions leading to protection and management of Project historic resources and to meet the requirements of federal cultural resource laws including Section 106 of the National Historic Preservation Act. WVIC's HRMP includes an ongoing monitoring program and a plan for protecting sites eligible for inclusion in the National Register of Historic Places within the FERC project boundary of the Willow Reservoir and its area of potential effects. For this reason, WVIC retained cultural resource responsibility for the lands WVIC donated to DNR in 2004 which remain in the FERC project boundary.

GENERAL LAND AND FOREST MANAGEMENT POLICIES AND PROVISIONS

Recreation
Natural Resource Board policy (NR 1.61) addresses public use on Department lands. Unless prohibited by rule or statute, all Department-managed lands on the Willow Flowage Scenic Waters Area property are open for hunting, fishing, trapping, walking, nature study, and berry picking. Other types of recreational uses must be authorized in the property's master plan.

ATV and snowmobile use is provided on the existing state, county, or club trails. Continuation of these trails is dependent on satisfactory use agreements with the sanctioning entity. The permittee is responsible for developing and maintaining the trails to the standards outlined in the Department's trail handbook. The Department retains the right to relocate the existing trails to meet the needs of this plan.

Biking and horseback riding are allowed on all logging roads, unless they are posted closed.

This management plan does not designate any day use sites. However, unoccupied campsites can be used for day use activities such as shore lunches. Additionally, there is a picnic area near the dam.

GENERAL WILDLIFE AND ENDANGERED SPECIES MANAGEMENT
A variety of wildlife inhabit the Willow Flowage Scenic Waters Area. Department wildlife management staff will work with the property manager and foresters on timber harvesting activities to maintain and enhance the composition and structure of forest habitat. The wildlife management staff will also conduct surveys to monitor wildlife populations, including rare, threatened, endangered, or game species. Wildlife information about the Willow Flowage Scenic Waters Area will be provided to the public. Additionally, staff will work to protect sensitive species areas, such as those of the eagle, osprey, and great blue heron and gray wolf.

Note: WVIC's Fish & Wildlife Management Plan For Project Lands and Reservoirs, which is part of its FERC license, calls for the maintenance of the undeveloped, wilderness character of the flowage. This plan, which was updated in 2011 and scheduled for another update in 2016, includes no plans for timber harvest on WVIC lands and limiting motorized access to enhance eagle and osprey habitat.

NATIVE SPECIES TO BE USED
When planting of trees, shrubs, grasses, and forbs is necessary, consideration shall be given to use native species that are genetically compatible with species from the area.

WATER RESOURCE PROTECTION
The Willow Flowage Scenic Waters Area has a water quality classification of Outstanding Resource Water (ORW).

The property's forest and recreation management plans contain elements to assure protection of the high water quality and in turn to help protect the fishery and aquatic habitats. Additional water quality and habitat protection measures are described below.

Construction Activities
The Department shall employ erosion control practices during all construction activities near the water (campsite or boat landing development) to minimize the amount of lost soil. Contractors are required to include erosion control practices that adhere to the Wisconsin Construction Site Best Management Practice Handbook guidelines in the bid specifications of all construction jobs.

Invasive Aquatic Species
The most likely mechanism of transport for exotic species, including Eurasian water milfoil, zebra mussels, rusty crayfish, and purple loosestrife, to the Willow Flowage Scenic Waters Area is via boat traffic. To minimize the likelihood of transporting and introducing invasive species to the Willow Flowage Scenic Waters Area, the DNR will use signs and other public information materials to alert boaters on the precautions they should follow to prevent spreading invasive aquatic species.

Chippewa Treaty Rights
The Willow Flowage Scenic Waters Area is located within the ceded territory subject to the Chippewa off-reservation treaty right. No part of this plan can restrict the treaty right contrary to the provisions of the final judgment of the federal court found in LCO v. State of Wisconsin, 775 F. Supp. 321 (W. D. Wis. 1991).

Cooperation with WVIC
Much of the land immediately surrounding the Willow Flowage Scenic Waters Area is covered by restrictive covenants held by WVIC. The Department must work cooperatively with WVIC in the management of these lands to adhere to the covenants. Department staff will consult with WVIC on a regular basis to

or whenever projects are planned within the area covered by the restrictive covenants.

Protection of Historic and Archaeological Features
All new facility development sites (boat landings, parking lots, buildings) will be inspected prior to construction to locate and evaluate any evidence of significant archaeological or historic material.

These cultural resource surveys shall be conducted in compliance with federal laws and state guidelines on historic preservation. Appropriate steps will be taken to protect and preserve all significant sites found.

Permits Issued by the Property Manager
The property manager may issue permits and collect fees, if applicable, for those activities that may legally be carried out on the property such as firewood cutting permit, Christmas tree cutting, and evergreen bough collection. The property manager may issue other permits and collect applicable fees as allowed by statute, administrative code, or Department policy. Permittees must follow the rules and regulations as stated in the permit Activities, if allowed by permit, may be restricted from portions of the property to ensure resource protection and diminish conflict with other allowed activities.

Facility Accessibility
Recreational developments shall comply with the Americans with Disabilities Act (ADA) for programs and facilities.

Property Access by Persons with Disabilities
The Department recognizes a need to provide reasonable access to Department lands by persons with disabilities, which includes permitting persons with disabilities to use vehicles on Department lands. The property manager may designate an area of the property and may issue a permit to use a motorized vehicle as a mode of personal conveyance according to Chapter NR 45.05(3)(d) and Manual Code 2527.7.

Refuse Management
Property visitors are required to carry out whatever they bring in. Refuse collection is provided in the Willow Dam boat landing parking lot. Burying of refuse is not allowed anywhere on the property.

Storage Building
Due to the long distance from existing DNR storage buildings to the Willow Flowage (approximately 25 miles), a cold storage/service support building is located on the property to store management equipment and supplies. A frost-proof well will be added to the building location to provide water for equipment operation and maintenance.

FOREST INVENTORY AND RECONNAISSANCE
The property uses a forest inventory system to gather and record information on its land. The database created from the inventory captures the physical description of these areas (dominant forest cover type, soils, ecological attributes, stand origin, guidelines, restrictions and goals). Reports are generated to summarize forest stands that are scheduled for management review. If stands are not yet ready for management, the reconnaissance database is updated and rescheduled for future review. Stands rescheduled for future review are still considered accomplishments toward the forest's annual sustainable harvest acreage. For stands that are ready for management, forestry staff consult with other Department programs such as endangered resources, fisheries, and wildlife to ensure an integrated resource approach prior to establishing the proposed practice. When establishing the practice, silvicultural guidelines and BMPs for water quality and invasive species are followed. After a management practice is completed, the forest reconnaissance database is updated.

BEST MANAGEMENT PRACTICES FOR WATER QUALITY
All management activities within the property will follow, as a minimum standard, the guidelines in Wisconsin's Forestry Best Management Practices for Water Quality: Field Manual for Loggers, Landowners and Land Managers (DNR PUB-FR-093-2010).

GENERAL LAND AND FOREST MANAGEMENT POLICIES AND PROVISIONS

FOREST PEST CONTROL

As stated in Wisconsin Statute 26.30, it is the public policy of the state to control forest pests threatening forests of the state. Within the Willow Flowage Scenic Waters Area, any significant forest pest event will be evaluated with consideration given to the property management goals and the potential threat of the pest to other landowners. Responses to significant infestations from other forest pests, including but not limited to the Emerald Ash Borer, may include timber salvage or pesticide treatments. Any response to a significant pest outbreak will be evaluated by an interdisciplinary team of scientists and communicated through press releases and notices to interested parties.

INVASIVE SPECIES CONTROL

Invasive non-native species have become recognized in recent years as a major threat to the integrity of the state forests. These species have the ability to invade natural systems and proliferate, often dominating a community to the detriment and sometimes the exclusion of native species. Invasive species can alter natural ecological processes by reducing the interactions of many species to the interaction of only a few species. The Willow Flowage Scenic Waters Area will develop an invasive species plan for the property. This document will outline various factors in managing for invasive species such as early detection and inventory, mapping, control, monitoring and research and education. The plan will be used as a guide to managing for the invasives on the property. In addition, Best Management Practices (BMPs) for Invasive Species will be incorporated into management practices on the property.

If detected, invasive species may be controlled using appropriate and effective methods, including but not limited to the use of herbicides, cutting, or hand removal. Control methods may be restricted in certain sensitive management areas. Before initiating control measures, the management prescriptions for the area being treated will be referenced.

Reed canary grass already lines the banks of the Tomahawk River above Cedar Falls and is abundant along the periodically disturbed (rising and falling water levels) shoreline of the Flowage. Its long-term impacts are unknown; however, it is a well-known troublesome weed that has the ability to exclude many native species. The Chinese Mystery Snail is a grazer (D. Heath pers. comm.) and is quite visible during low water-periods. The impacts of this species are unknown at this time.

CHEMICAL USE

Approved herbicides and pesticides may be used for various purposes on the property, such as but not limited to control invasive plants, to control plant competition in forest regeneration areas, to control undesirable vegetation in or around recre-

ational facilities, or for insect control except as restricted in the management prescriptions in this master plan. All Department procedures and herbicide and pesticide label requirements will be followed.

FIRE SUPPRESSION

As stated in Wisconsin Statutes 26.11, "The Department is vested with power, authority and jurisdiction in all matters relating to the prevention, detection and suppression of forest fires outside the limits of incorporated villages and cities in the state except as provided in sub (2), and to do all things necessary in the exercise of such power, authority and jurisdiction." Forest fire suppression actions will consider the property management goals and the threats of the fire to life and property. Appropriate techniques will be used in each event to provide effective fire suppression while minimizing resource damage. Selected areas of the property are periodically used for fire equipment training purposes.

RESEARCH

The Willow Flowage Scenic Waters Area provides an operational and strategic location for experimental trials and research, especially with regard to tree improvement, genetics, forest health, artificial and natural regeneration, and prescribed fire, and nutrient cycling. The research conducted by Department managers, scientists, and educational partners can be beneficial for the property, the Department and the general public. Scientific research that is compatible with the ecological and aesthetic attributes of the site is generally supported. The property manager has the authority to approve or deny requests for research projects. All research activities will be carried out in locations and using methods that are consistent with the management classifications and management objectives in this property plan.

AUTHORIZED RESPONSE TO CATASTROPHIC EVENTS

Wildfires, timber diseases, and insect infestations shall be controlled to the degree appropriate to protect the values of each management area. Necessary emergency actions will be taken to protect public health and safety. Appropriate management responses to catastrophic events are determined on a case-by-case basis, and action will be taken as appropriate. At a minimum, salvage of trees damaged by wind, fire, ice, disease, or insects may occur if consistent with the objectives of the management area or as prescribed in the plan for the management area.

SHOOTING RANGE

A shooting range analysis was conducted as part of the plan review. There were no public comments submitted during the plan review phase that indicated a desire for a shooting range on the Willow. The area is sparsely populated and a number of public and private shooting ranges are within close proximity of the Willow. The Caywood public range on the Northern-Highland American Legion State Forest is approximately 25 miles from the Willow and Price County, Cranberry Creek range is approximately 30 miles. There are approximately 5 ranges that fall within the 100,000 population buffer to the Willow. Based on public input and the shooting range analysis criteria no need for an additional range was considered.

GENERAL ADMINISTRATION POLICIES AND PROVISIONS

The following section describes general administration policies and provisions that are applied to all lands of the Willow Flowage Scenic Waters Area that are under state ownership.

EMERGENCY ACTION PLAN

The property maintains on file an emergency action plan that describes staff response and coordination with other agencies to natural disasters as they affect public safety and facilities. It is reviewed annually.

FUNDING CONSTRAINTS

Many of the initiatives in the master plan are dependent upon additional funding and staffing. Operational funding for state forests is established bi-annually by the state legislature. Development projects follow an administrative funding and approval process outside of the master plan. Therefore, a number of legislative and administrative processes outside of the master plan determine the rate at which this master plan can be implemented.

MONITORING THE IMPLEMENTATION OF THE MASTER PLAN

The implementation of this master plan will be monitored on an annual basis to determine progress made in meeting the plan's management objectives. The property manager will coordinate, schedule, and lead a yearly meeting to document and assess progress on the management actions accomplished during the previous year and plan management activities for the upcoming year. A file is kept with these yearly assessments in preparation for implementation of Manual Code 9314.1(C), which calls for formal plans to determine progress on implementation and whether the plan is accomplishing intended results. Master plans set specific goals and objectives describing a future desired state. An on-going monitoring program is essential to track whether the plan is achieving the desired results and if funding and staff resources are being allocated most effectively. A well-constructed monitoring program also provides essential data for adaptive management. That is, checking results and making management corrections when needed so as to stay on the best path to achieve the desired result and minimize adverse or undesirable impacts. On a broader scale, some master plan related monitoring data will also contribute to the Department's statewide and regional ecosystem and environmental monitoring programs.

Monitoring and evaluation can be used to improve management results or efficiency, build and maintain credibility with public, validate past decisions and build better decisions in the future , and build certainty where uncertainty exists regarding the impact of management actions or uses. A solid monitoring program will allow the plan to be kept up to date through adaptive management and substantially reduce the need for a major plan revision process every 15 years.

Monitoring reports will be available on the Department's webpage, at the property, and during annual public meetings.

PUBLIC COMMUNICATIONS PLAN

The public and other governmental agencies will have the opportunity for on-going involvement in the implementation of this master plan. This communication plan describes how the public will be notified about activities and issues on the Willow Flowage Scenic Waters Area.

Annually the property manager will write a report that summarizes the following:

- For the past year, the primary management and development activities that were completed and other significant issues that were addressed.
- For the coming year, outline any proposed management and development activities and any changing management actions or approaches.

The annual report may also include other information of interest to the public on various topics related to management and use of the forest such as the status of forest insect or disease problems, fires or storm damage, new information on endangered or threatened species, recreational management Issues or new opportunities, and recreational use changes or trends.

The property manager will maintain a list of persons, groups, and governments interested in receiving information about on-going management of the property. When requested, the property manager will provide the information via U.S. mail, e-mail or direct them to the Department's internet web site.

Annually, the Willow Flowage Scenic Waters Area will meet with stakeholders to update interested parties on proposed activities.

In the event the Department considers a change to the master plan through a plan variance or amendment, the public will be advised of the proposal and informed of the review and comment process. As appropriate, a public news release will be prepared and stakeholders notified of the comment process.

TRIBAL CONSULTATION

The property manager will consult at least annually with the LdF tribe as well as the Great Lakes Indian Fish and Wildlife Commission (GLIFWC) and Voigt Intertribal Task Force on management issues related to Treaty rights. Additional consultation meetings may be scheduled should issues warrant immediate attention.

CONTACT PERSON

The Willow Flowage Scenic Waters Area property manager should be contacted regarding the master plan or other state forest related topics. At the time of this publication, the Willow Flowage Scenic Waters Area manager contact information is:

The Willow Flowage Scenic Waters Area Manager
Wisconsin Department of Natural Resources
8770 County Highway J
Woodruff, WI 54568
715-356-5211 ext. 259

APPENDICES

A. WISCONSIN VALLEY IMPROVEMENT COMPANY AND THE WILLOW FLOWAGE SCENIC WATERS AREA MASTER PLAN*

The Willow Flowage came into existence in 1926 when Wisconsin River Valley corporations were looking to the future. Their actions during the intervening years to protect the undeveloped nature of the Willow shoreline made it possible to have a Willow Flowage Scenic Waters Area Master Plan today. Through the Master Plan, the corporations and the public should realize a mutually beneficial relationship through which to enjoy the Willow on into the future.

Wisconsin Valley Improvement Company (WVIC), Wausau, which constructed and owns the Federal Energy Regulatory Commission (FERC) license to operate the Willow Flowage, is unique among United States water conservation-regulation organizations. The company plays a significant role in the Master Plan by virtue of its authority under Federal Law, and its Willow Reservoir responsibilities related to its federal license.

THE WVIC ORGANIZATION

WVIC is a private company that coordinates the Wisconsin River flow regulation system for several separate waterpower companies. It is owned by paper mill companies and electric utilities, which pay WVIC for the streamflow regulation benefit it provides on the Wisconsin River. WVIC's storage and release operation increases the amount of electricity the member companies' 25 hydroelectric dams on the Tomahawk and Wisconsin rivers would otherwise generate without the reservoir system. WVIC does not generate electricity at its dams. Reservoir operation conserves water, reduces flood flows by up to 50%, can double naturally-occurring low flow, and enhances water quality in the Tomahawk and Wisconsin rivers.

The Wisconsin River reservoir system provides 66,000 acres of water-based recreation opportunities for the public. Additionally, the river's 430 miles of free-flowing and impounded stretches are a vast scenic and recreation resource freely open to the public.

WVIC PURPOSE AND LEGAL AUTHORITY

The Wisconsin Legislature in 1907 granted WVIC a charter to organize and develop the Wisconsin River headwaters lakes and their tributary streams. The company's purpose as stated in the charter is *"...to produce as nearly a uniform flow of water as practicable in the Wisconsin and Tomahawk rivers by storing in reservoirs surplus water for discharge when water supply is low to improve the usefulness of the rivers for all public purposes and to reduce flood damage."* The company began with 16 natural lakes. Between 1922 and 1937, five more reservoirs including the Willow were constructed.

Because the Wisconsin River is a navigable waterway and reservoir operation contributes to interstate commerce, WVIC was required by the Federal Power Act to obtain a federal license for its operation. Under federal supremacy doctrine, WVIC's FERC license takes precedence over the Wisconsin Legislative Charter. The license was renewed in 1996 for 30 years.

Under the operation plan, the FERC license requires WVIC to operate the system of 21 headwaters reservoirs together as a whole to assure balance among the Wisconsin River resource's benefits. Willow does not stand alone. It is one of WVIC's five largest reservoirs that are operated daily to achieve flow goals at Merrill and Wisconsin Rapids. Flow goals consider the time of year and the amount of water in storage. The five reservoirs are operated to achieve balance in the amount of water in storage among them.

The Wisconsin Department of Natural Resources in this Master Plan accedes to FERC authority over WVIC's operation of the Willow Flowage waterbody. The Master Plan, therefore, is applicable to management of the land the State of Wisconsin owns and not to the operation of the Willow waterbody.

HISTORY OF WILLOW FLOWAGE PROTECTION

It has been the policy of WVIC and its member companies in the years since the Willow Flowage was constructed to protect its natural setting. From 1926 to 1958, WVIC owned the shoreline and acreage inland from the high water mark. When WVIC sold the land beyond the water for industrial forest purposes, it placed restrictive covenants in the deeds.

The covenants remain in force today and prohibit the construction of buildings or other structures along the shoreline and, in many cases, prohibit any use other than timber production and harvesting. The State of Wisconsin is bound by these covenants.

WILLOW OWNERSHIP

The Willow Flowage waterbody is a 6,392-acre storage reservoir operated by WVIC. In 2004, WVIC conveyed 6,114.6 acres of land at and below the Willow Flowage's ordinary high water mark at elevation 1,529.35 NVGD (National Vertical Geodetic Datum) and 35.8 acres containing the two primary recreation sites on the reservoir to the Wisconsin Department of Natural Resources (WDNR). Since the land is in the Project boundary, FERC approval was needed prior to the transfer. WVIC's justification to FERC advocating for the land to be transferred was that *"management of the reservoir's fish and wildlife resources and environmentally-sensitive areas would be better served by transferring fee-title ownership of these parcels to WDNR"*.

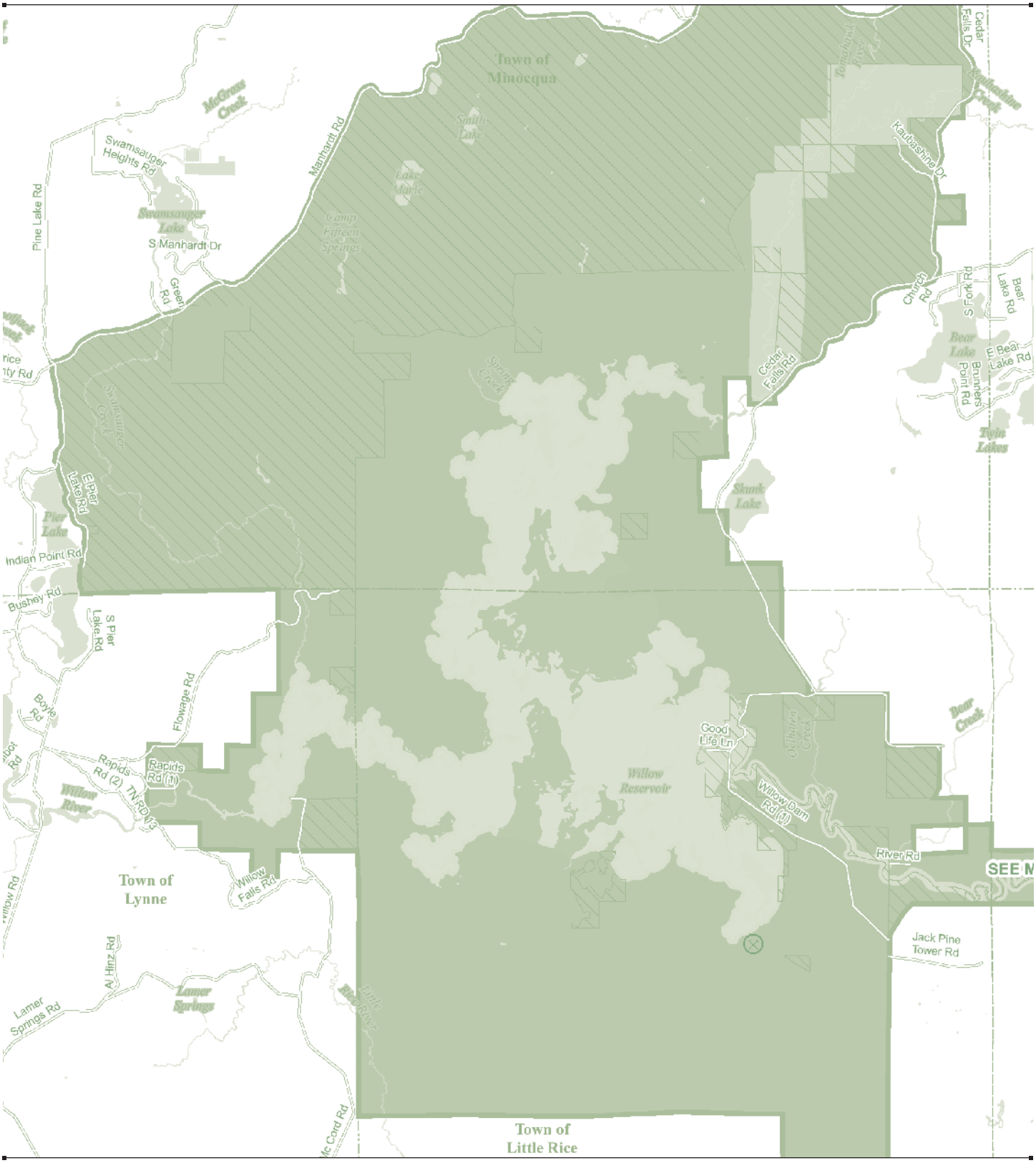
Although the property was transferred to WDNR it remained within the FERC Project boundary. Also contained in the deed are specific rights retained by WVIC including flowage rights, responsibilities for cultural resource management and the right to perform its obligations on the Property pursuant to its FERC license. Further, FERC assigned WVIC the responsibility to assure the property is *"managed in perpetuity only for public-recreation and resource-protection purposes, consistent with the terms and conditions of the project license."*

WDNR AND WVIC COOPERATIVE MANAGEMENT

WDNR and WVIC have unique roles and responsibilities relative to the Willow Flowage. Through the Willow Flowage Scenic Water Area Master Plan, the WDNR will implement a multifaceted land-based resource stewardship program on behalf of the public. Under authority of FERC license, WVIC will continue implementation of required water-based operation, environmental, and recreation plans.

As the Willow Flowage Scenic Waters Area Master Plan is implemented, evaluated, and updated, WDNR will consult with WVIC to maintain clear understanding of each other's management roles, prevent violation of deed covenant restrictions, and, whenever and wherever possible, seek cooperation that will sustain a healthy resource long into the future.

** Information provided by Wisconsin Valley Improvement Company*

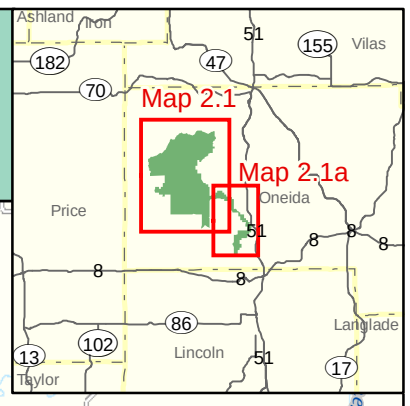


WISCONSIN
DEPT. OF NATURAL RESOURCES

PRINTED ON RECYCLED PAPER

PUB-LF-033-2016

Willow Flowage Scenic Waters Area
EXISTING COVER TYPE



N

Stone Lake
Little Stone Lake
Pine Lake
Squirrel River
Howards Creek
Meyer Lake
Camp Nine Rd
Lower Kaubashine Rd
Silver Lake
Emile Creek
Kitty Creek
Lost Lake
Town of Minocqua
Tomahawk River
Kaubashine Creek
Cedar Falls Dr
McGrass Creek
Manhardt Rd
Smith Lake
Bootjack Lake
Swamsauger Lake
E Manhardt Dr
Lake Marie
Pine Lake Rd
Camp Fifteen Springs
Lake Seventeen
Lake Sixteen
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Price County Rd
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Interlocken Rd
Oak Dr
Town of Hazelhurst
Twin Lakes
Skunk Lake
Pier Lake
E Pier Lake Rd
Swamsauger Creek
Cedar Falls Rd
McCormick Lake
Lake Junnie
Bear Creek
Flowage Rd
Willow Lake
Rapids Rd (2)
Willow Falls Rd
Willow Reservoir
Oelhafen Creek
Willow Dam Rd (1)
Tomahawk River
Rocky Run Rd
SEE MAP 2.1a
Willow Rd
Lamer Springs Rd
Lamer Springs
Mc Cord Rd
Little Rice River
Town of Cassian
Town of Little Rice
Town of Lynne
Muskellunge Rd
Brown Creek
Swamp Lake Rd
Swamp Lake
Swamp Creek Rd
Town of Nokomis
West
Kelly Fire Ln
Gobler Lake Rd
Burrows Lake
Burrows Lake Rd
Y

Land cover information is derived from Wisconsin DNR Forestry Division, forest reconnaissance (WisFIRS), Wisconsin Wetland Inventory, 2006 National Land Cover Data and regional staff aerial imagery interpretation. Land cover designations have been generalized for the master plan process.

0 0.5 Miles

- Local Road
- River/ Stream
- Open Water
- Aspen
- Bottomland Hardwood
- Developed
- Emergent Vegetation
- Grassland
- Lowland Shrub
- Non-Forested Wetland
- Shrub
- Swamp Conifer
- Swamp Hardwood
- Upland Conifer
- Upland Hardwood
- Water
- Willow Flowage Project Boundary
- Not DNR Owned Land

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

Division of Forestry

May 05, 2016

FR-MP-9527-9528-2.1 crk

MAP 2.1

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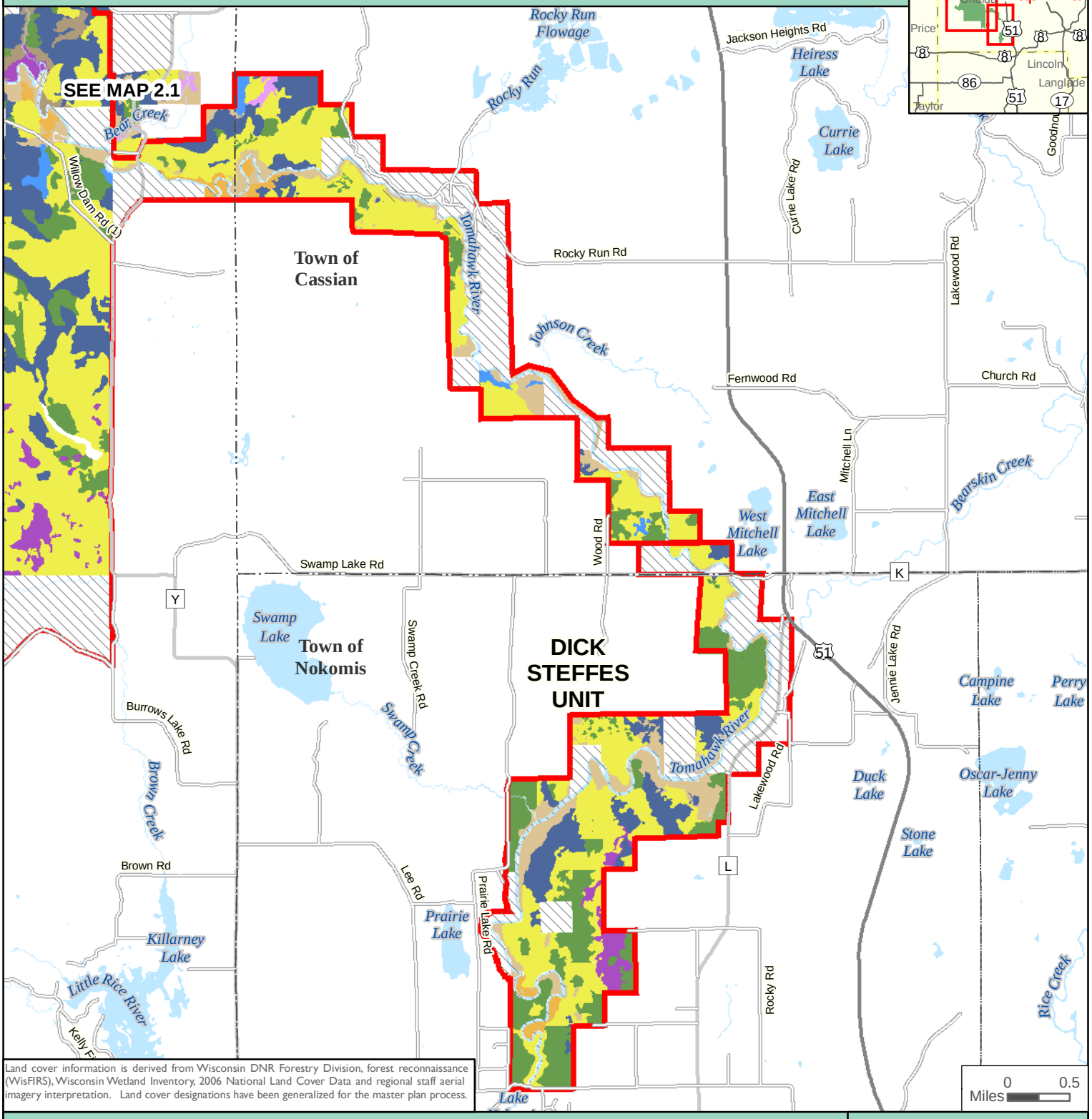
Willow Flowage Scenic Waters Area
EXISTING COVER TYPE



Land cover information is derived from Wisconsin DNR Forestry Division, forest reconnaissance (WisFIRS), Wisconsin Wetland Inventory, 2006 National Land Cover Data and regional staff aerial imagery interpretation. Land cover designations have been generalized for the master plan process.

0 0.5 Miles

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- River/ Stream
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- Aspen
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- Willow Flowage Project Boundary
- Not DNR Owned Land

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

Division of Forestry

May 05, 2016

FR-MP-9527-9528-2.1a crk

MAP 2.1A

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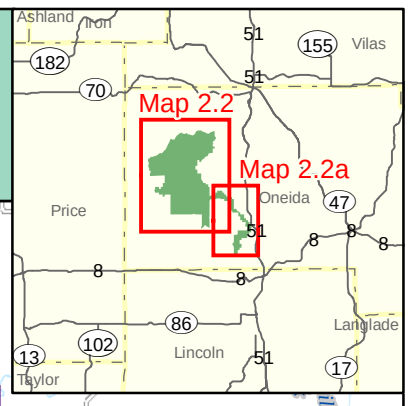
Willow Flowage Scenic Waters Area
LAND MANAGEMENT CLASSIFICATIONS



Town of Minocqua
Town of Hazelhurst
Town of Cassian
Town of Little Rice
Town of Lynne
Town of Nokomis
SEE MAP 2.2a

Local Road
River/Stream
Open Water
Not DNR Owned Land
State Natural Area
State Natural Area Project Boundary
Willow Flowage Project Boundary

Forest Production Management Area
Area 1: Forested Backlands

Native Community Management Area
Area 2: Flowage Peninsulas
Area 3: Tomahawk River Pines - *Designated State Natural Area*

Scenic Resources Management Area
Area 4: Flowage Shore, Islands & Tomahawk River

Special Management Area
Area 5: Gravel Pit

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
Division of Forestry
May 03, 2016
FR-MP-9527-9528-2.2 crk

MAP 2.2

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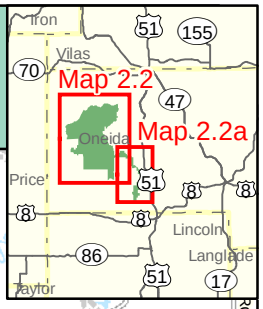
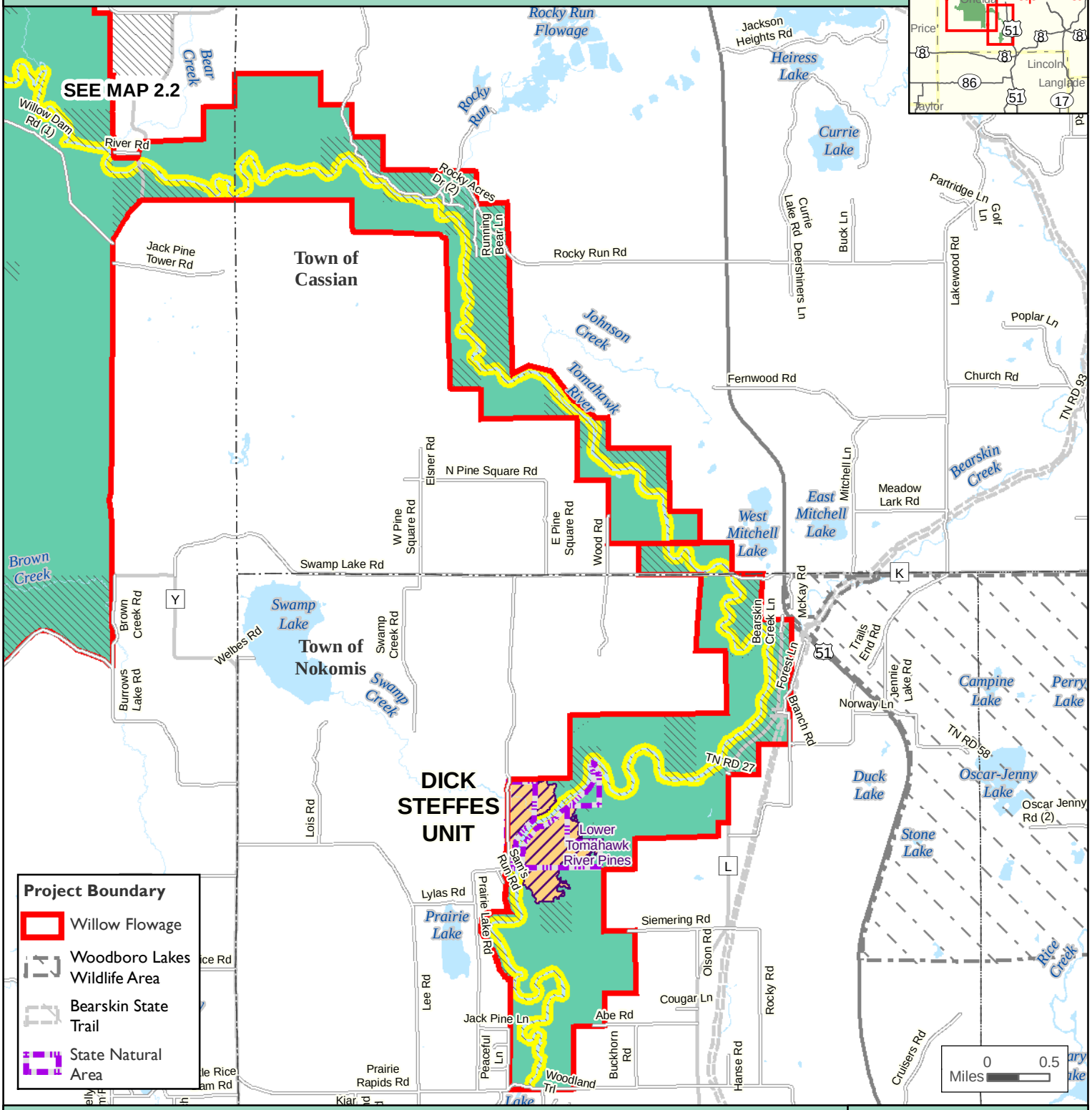
Willow Flowage Scenic Waters Area

LAND MANAGEMENT CLASSIFICATIONS





Project Boundary
- Willow Flowage
- Woodboro Lakes Wildlife Area
- Bearskin State Trail
- State Natural Area

- Local Road
- Not DNR Owned Land
- State Natural Area
- River/Stream
- Open Water

Forest Production Management Area
- Area 1: Forested Backlands

Native Community Management Area
- Area 3: Tomahawk River Pines - *Designated State Natural Area*

Scenic Resources Management Area
- Area 4: Flowage Shore, Islands & Tomahawk River

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

Division of Forestry

May 04, 2016

FR-MP-9527-9528-2.2a crk

MAP 2.2A

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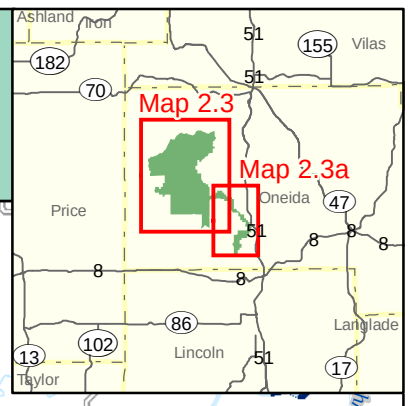
Willow Flowage Scenic Waters Area
PLANNED RECREATION INFRASTRUCTURE

N



Stone Lake
Little Stone Lake
Pine Lake
Yukon Trl
Squirrel River
Howards Creek
Meyer Lake
Lost Lake
Camp Nine Rd
Lower Kaubashine Rd
Silver Lake
Creek Rd
Kaubashine Creek
Town of Minocqua
McGrass Creek
Manhardt Rd
Smith Lake
Tomahawk River
Cedar Falls Dr
Bootjack Lake
Swamsauger Lake
Pine Lake Rd
E Manhardt Dr
Lake Marie
Cedar Fall Fire Lane
Lake Seventeen
Lake Sixteen
Camp Fifteen Springs
Kennedy Fire Lane
Kucera Dr
Oak Dr
Interlocken Rd
Bear Lake
Town of Hazelhurst
Twin Lakes
Bootjack Creek
Snakuskuger Creek
E Pier Lake Rd
Cedar Falls Rd
Skunk Lake
Pier Lake
McCormick Lake
Lake Junnie
Bear Creek
Timms Rd
Flowage Rd
Willow Lake
Rapids Rd (2)
Thunder Creek Rd
Willow Reservoir
Oelhafen Creek
Willow Dam Rd (1)
Tomahawk River
Rocky Run Rd
SEE MAP 2.3a
Willow Falls Rd
Town of Lynne
Jack Pine Tower Rd
Town of Cassian
Iron Gate Rd
Al Hinz Rd
West Rd
Lamer Springs Rd
Lamer Springs
Mc Cord Rd
Little Rice River
Town of Little Rice
Swamp Lake Rd
W Pine Square Rd
Muskellunge Rd
Brown Creek
N Lake Rd
Brown Creek Rd
Swamp Lake
West Lake
Muskellunge Lake
Kelly Fire Ln
Gobler Lake Rd
Burrows Lake
Burrows Lake Rd
Swamp Creek Rd
Town of
0 0.5 Miles

5 Gate
5 Planned Gate
5 Planned Open Gate
Q Boat Ramp
Q Boat Ramp (with parking)
< Parking Lot
< Planned Parking Lot

Campsite
Group Campsite
Planned Campsite
Planned Group Campsite
Hiking Trail

Hunter Walking Trail (maintained closed primitive road)
ATV Trail/Route
Snowmobile Trail
County/Town* /Private Rd

DNR Owned/Managed Open Roads
- Fully Developed
- Moderately Developed
- Lightly Developed
- Primitive
- = Planned Change

DNR Managed Land
Forest Legacy (DNR Easement)
WI Board of Commissioners of Public Land
County Forest

** All Town Roads are designated as ATV routes in the Towns of Little Rice, Minocqua, and Lynne.*

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
Division of Forestry
May 04, 2016
FR-MP-9527-9528-2.3 crk

MAP 2.3

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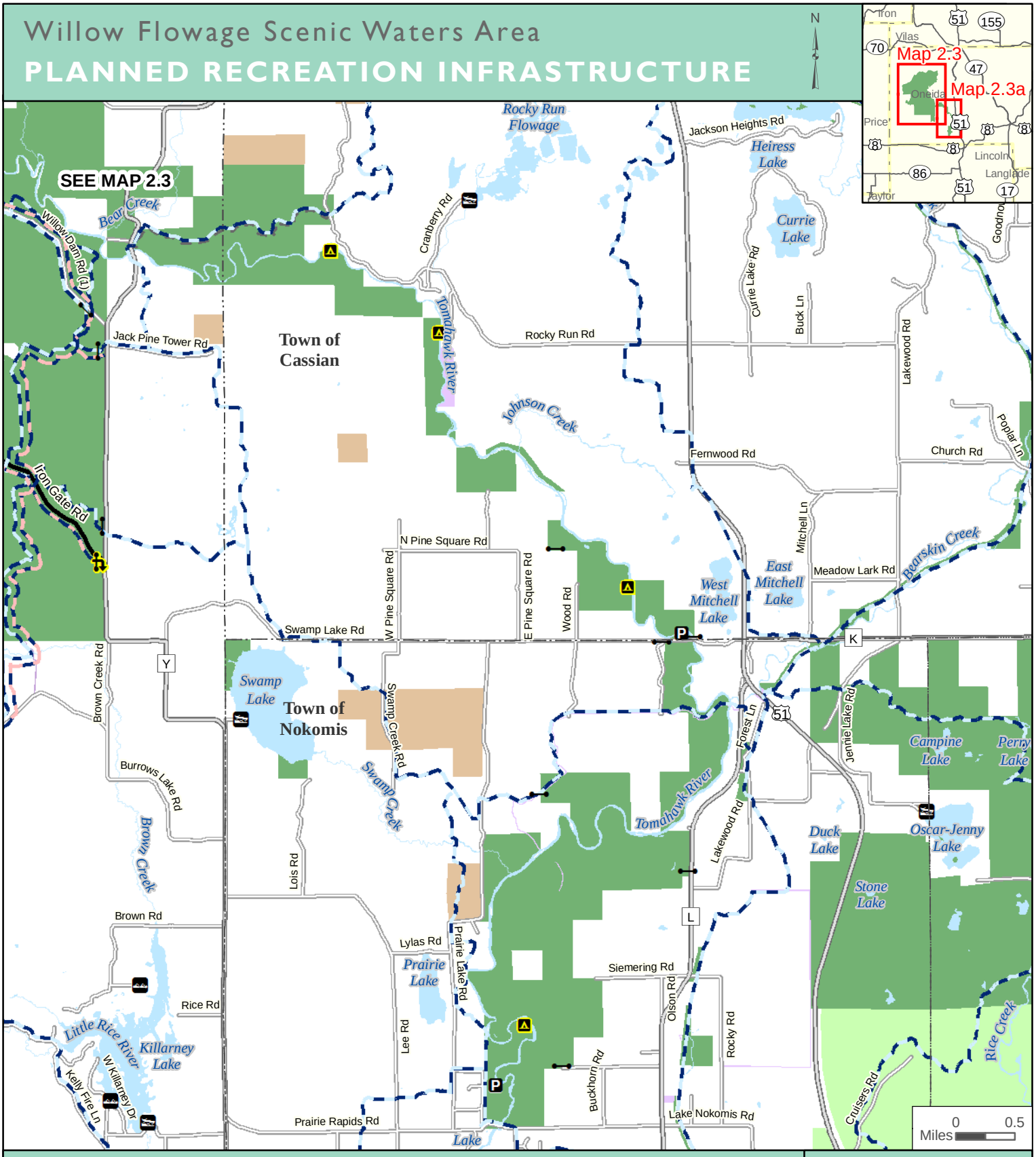
Willow Flowage Scenic Waters Area
PLANNED RECREATION INFRASTRUCTURE



5 Gate
5 Planned Open Gate
< Parking Lot
Q Boat Access (ramp)
R Boat Access (carry-in)
Planned Campsite

ATV Trail/Route
Snowmobile Trail
County/Town* /Private Rd

DNR Owned/Managed Open Roads
Fully Developed
Lightly Developed
Primitive

DNR Managed Land
Forest Legacy (DNR Easement)
Other DNR Easement
WI Board of Commissioners of Public Land
County Forest

** All Town Roads are designated as ATV routes in the Towns of Little Rice, Minocqua, and Lynne.*

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
Division of Forestry
May 04, 2016
FR-MP-9527-9528-2.3a crk

MAP 2.3A

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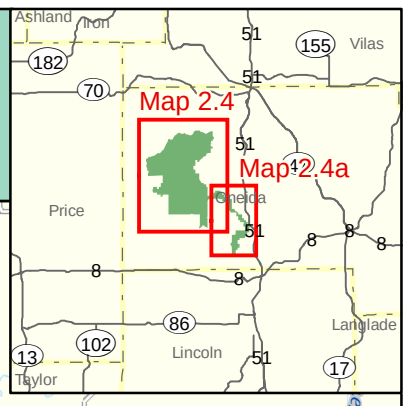
Willow Flowage Scenic Waters Area
OWNERSHIP AND PROJECT BOUNDARY



Stone Lake
Little Stone Lake
Pine Lake
Meyer Lake
Howards Creek
Squirrel River
Squirrel River Pines
Camp Nine Rd
Lower Kaubashine Rd
Silver Lake
Kitty Creek
Lost Lake
Town of Minocqua
McGrass Creek
Manhardt Rd
Smith Lake
Bootjack Lake
Swamsauger Lake
E Manhardt Dr
Lake Marie
Upper Tomahawk River Pines
Kaubashine Creek
Cedar Falls Dr
Upper Kaubashine Creek
Pine Lake Rd
Camp Fifteen Springs
Lake Seventeen
Lake Sixteen
Bootjack Creek
Price County Rd
Spring Creek
Bear Lake
Interlocken Rd
Town of Hazelhurst
Twin Lakes
E Pier Lake Rd
Swamsauger Creek
Skunk Lake
Cedar Falls Rd
Pier Lake
McCormick Lake
Lake Junnie
Bear Creek
Flowage Rd
Willow Lake
Rapids Rd (2)
Willow Reservoir
Oelhafen Creek
Willow Dam Rd (1)
Tomahawk River
Rocky Run Rd
Willow Falls Rd
SEE MAP 2.4a
Willow Rd
Lamer Springs Rd
Lamer Springs
Town of Cassian
Mc Cord Rd
Little Rice River
Town of Little Rice
Town of Lynne
Swamp Lake Rd
Brown Creek
Muskellunge Rd
Gobler Lake
Gobler Lake Rd
Burrows Lake Rd
Swamp Lake
Swamp Creek Rd
Kelly Fire Ln
West Lake
Burrows Lake
Town of Nokomis
Little Somo River
0 0.5 Miles

Local Road
River/ Stream
Open Water
Willow Flowage Project Boundary
State Natural Area Project Boundary
DNR Managed Land
Forest Legacy (DNR Easement)
State Natural Area
WI Board of Commissioners of Public Land
County Forest

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
Division of Forestry
May 03, 2016
FR-MP-9527-9528-2.4 crk

MAP 2.4

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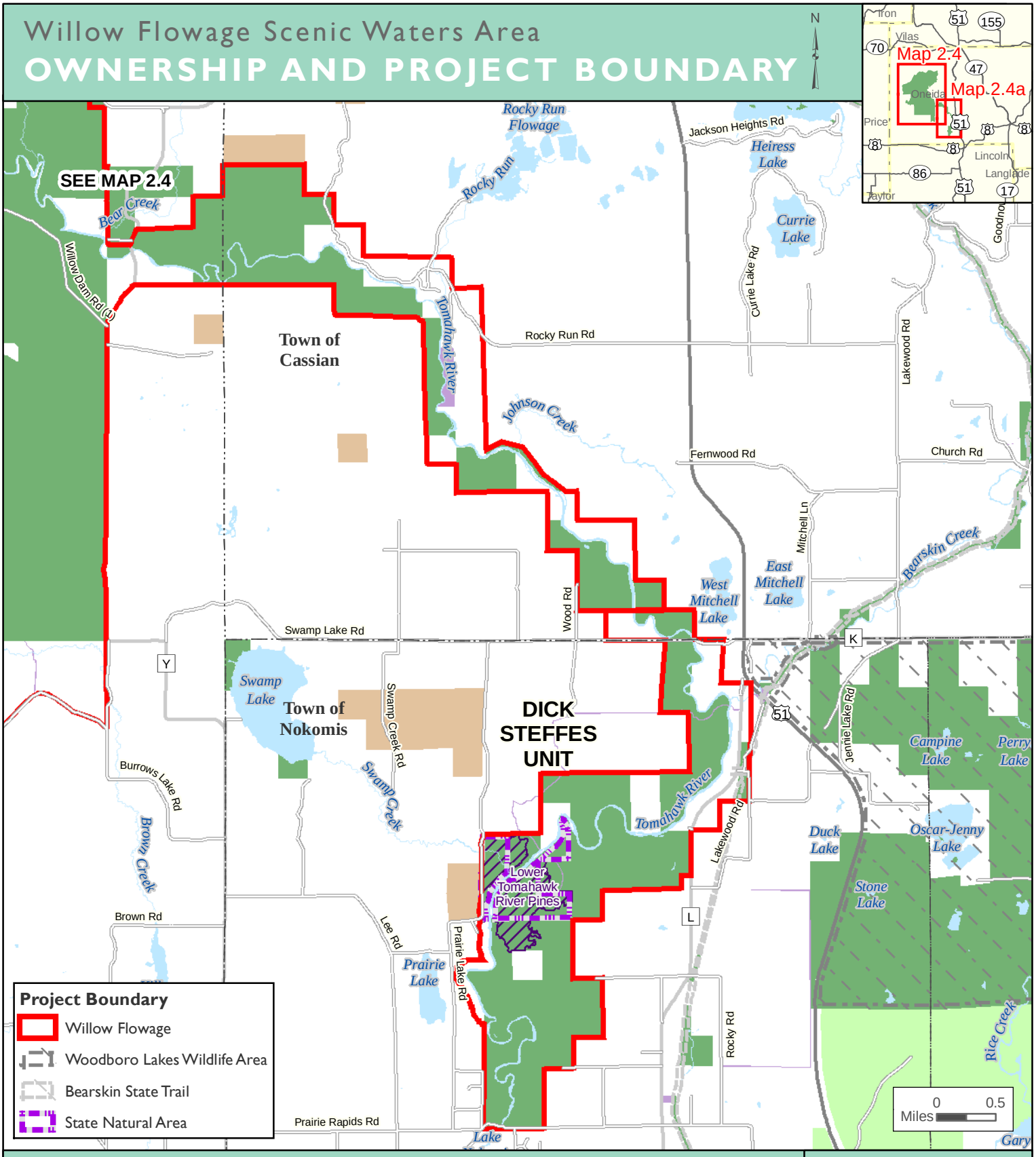
Willow Flowage Scenic Waters Area
OWNERSHIP AND PROJECT BOUNDARY



WISCONSIN DEPARTMENT OF NATURAL RESOURCES

Division of Forestry

May 03, 2016

FR-MP-9527-9528-2.4a crk

MAP 2.4A

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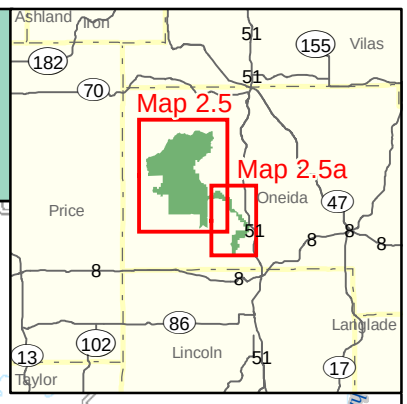
Willow Flowage Scenic Waters Area
PLANNED ROAD INFRASTRUCTURE



Stone Lake
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Camp Fifteen Springs
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Muskellunge Rd
West Lake
Muskellunge Lake
Kelly Fire Ln
Gobler Lake Rd
N Lake Rd
Burrows Lake
Burrows Lake Rd
Swamp Lake
Swamp Creek Rd
Town of Nokomis
York Rd
0 0.5 Miles

Boat Ramp
Boat Ramp (with parking)
Parking Lot
Planned Parking Lot
Gate
Planned Gate
Planned Open Gate
ATV Trail/Route
Hunter Walking Trail (maintained closed primitive road)
County/Town* /Private Rd
Non DNR planned open to public vehicles **
DNR Managed Land
Forest Legacy (DNR Easement)
WI Board of Commissioners of Public Land
County Forest

*All Town Roads are designated as ATV routes in the Towns of Little Rice, Minocqua, and Lynne.
** These roads are determined outside of the Willow master plan.

DNR Owned/Managed Roads Key

NR 44 Road Classification
- Fully Developed
- Moderately Developed
- Lightly Developed
- Primitive

Public Use
- Open = **Black**
- Closed = **Red**
- Seasonal = **Orange**

= Planned Change

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
Division of Forestry
April 29, 2016
FR-MP-9527-9528-2.5 crk

MAP 2.5

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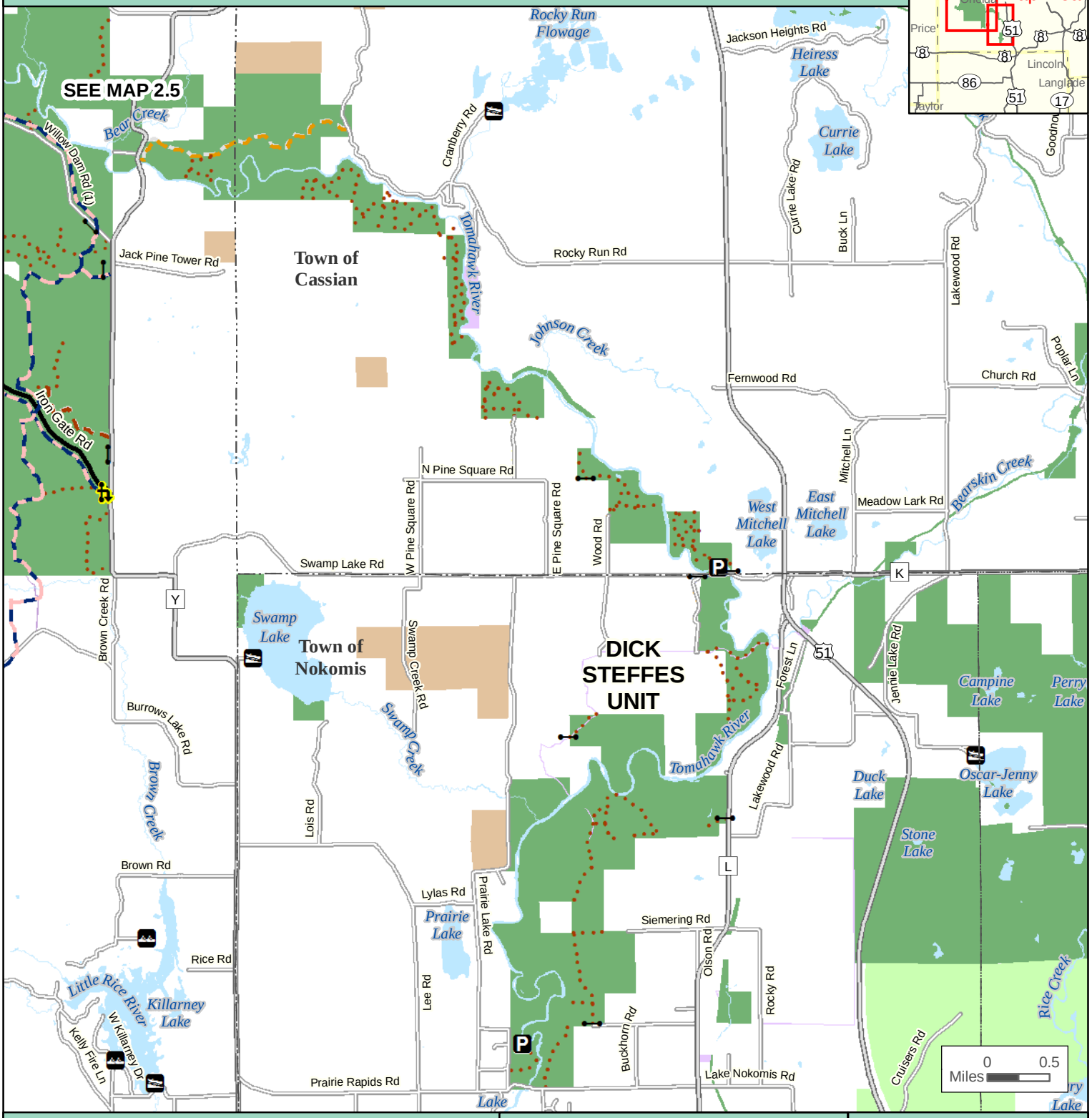
Willow Flowage Scenic Waters Area
PLANNED ROAD INFRASTRUCTURE



5 Gate

5 Planned Open Gate

Parking Lot

ATV Trail/Route

County/Town* /Private Rd

DNR Managed Land

Forest Legacy (DNR Easement)

Other DNR Easement

WI Board of Commissioners of Public Land

County Forest

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DNR Owned/Managed Roads Key

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WISCONSIN DEPARTMENT OF NATURAL RESOURCES

Division of Forestry

May 04, 2016

FR-MP-9527-9528-2.5a crk

MAP 2.5A

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