Michigan Department of Natural Resources

Forest Resources Division

And

Wildlife Division

Northern Lower Peninsula
Regional State Forest Management Plan

December 2013

Planning Team:

Tom Haxby
Keith Kintigh
David L. Price
Scott L. Jones, Editor

Approved:

Date: 12/12/13

Keith Creagh, Director
Michigan Department of Natural Resources

In Michigan, the Department of Natural Resources (DNR) works hard to sustainably manage state-owned forest land for the many economic, recreational and environmental values that are part of those forest lands. To accomplish this, the DNR manages state forest lands using an ecosystem-based approach in a way that meets our current forest needs while not compromising the needs of future generations.

The DNR has been certified by the Forest Stewardship Council and the Sustainable Forestry Initiative; both of these agencies have audited the DNR's current forest management practices against biological, social and economic standards and independently certified those practices to be in compliance with such standards.

The Regional State Forest Management Plan (RSFMP) for the northern Lower Peninsula ecoregion is one of three plans that will help bridge the planning and communication gaps between the 2008 Michigan State Forest Management Plan and the annual inventory and planning performed by the local management unit. The RSFMP is intended to help achieve the planning requirements of Part 525 of the Natural Resources and Environmental Protection Act, as well as forest certification standards. This is an operational plan that is intended to provide landscape-level direction that will guide the local management decisions affecting forest types and related habitat.

Plan Origins

There has been a need for a landscape level plan since the Pere Marquette State Forest Plan expired several years ago. With additional feedback from the 2004 and 2005 forest certification audits, the planning process moved forward. In 2005, a series of stakeholder input sessions identified the following categories of interests that the public wanted to see addressed in the state forest plans:

- Public recreation
- Biodiversity – old growth
- Wildlife habitat and management
- Invasive exotic species
- Roads
- Land use
- Timber and vegetation management
- Riparian management zones
- Planning process
- Interagency cooperation
- Spirituality – solitude
- Public education and awareness
- Funding.

Internal and external input went into the development of the NLP plan outline. The internal process of grouping state forest lands into management areas, based on similar ownership, socioeconomic and ecological attributes, culminated with public meetings in 2009 to review the management area boundaries. Management direction for the NLP management areas (including the development of the model to project timber harvest levels based on DNR inventory data) was developed by DNR district and state planning staff. These draft management area plans were reviewed by unit and other regional DNR staff in a series of internal meetings throughout 2012 and revisions were made based on this input. In October 2012, the full draft NLP regional plan was released to the public.

Plan Content

The northern Lower Peninsula RSFMP contains six major sections, plus appendices, a glossary and citation of literature.

Section 1

This section is an introduction to the plan that describes its purpose and organization, geographical context and intended implementation.

Section 2

This section provides a history of forests in the northern Lower Peninsula, the origin of the present state forest system, and a look at the 19th- and 20th-century periods of large-scale extraction of natural resources and how those extractions have influenced the forest composition and present management of forest resources.

Section 3

An understanding of the history in Section 2 sets the stage for Section 3, which describes current forest conditions and trends related to:

- Forest resources
- Forest health
- Featured wildlife species and habitat needs
- Water and fish habitat
- Socio-economic context of the plan (including timber production; forest recreation and tourism; hunting, trapping and fishing; oil and gas production; and mineral extraction.

Specifically, this section touches on the following topics:

- State forest timber sales in the NLP over the past decade have fluctuated between 26,000 and 36,000 acres per year from approximately 1,781,000 acres of actual forested land. Harvest acres of northern hardwoods, jack pine, oak and red pine have been steady, with the exception of aspen acres, which declined after 1997.

- A number of forest insects and diseases are present and threaten forest conditions in the NLP; the most significant of these are emerald ash borer, beech bark disease and oak wilt.

- Featured wildlife species in the NLP are the American bittern, American martin, American woodcock, beaver, black bear, black-throated blue warbler, eastern massasauga rattlesnake, elk, golden-winged warbler, Kirtland's warbler, mallard, pileated woodpecker, piping plover, red-headed woodpecker, red-shouldered hawk, ruffed grouse, snowshoe hare, white-tailed deer, wild turkey, wood duck and wood thrush.

- There are many inland lakes and over 6,800 miles of streams in the NLP, including some of Michigan's most renowned trout streams: the Au Sable, Manistee and Pere Marquette rivers. There are 10 state designated natural rivers, including all or part of the Au Sable, Betsie, Boardman, Jordan, Manistee, Pere Marquette, Pigeon, Pine, Rifle and White river systems.

- As of 2005, there were a total of more than 7,000 jobs in forest product industries in the NLP. There were more than 90 businesses involved in forestry and logging, and wages for the forestry and logging, wood products and paper manufacturing sectors in the NLP totaled more than
$110 million.

- The state forests of the NLP provide 2 million acres of land for hiking, biking, riding, hunting, fishing, camping, bird watching and other recreation activities. There are 40 state-managed pathways providing a total of 360 miles of hiking, biking and skiing trails; 82 forest campgrounds providing almost 1,900 campsites; and hundreds of miles of snowmobile, off-road vehicle and equestrian trails.

- As of 2011, there were nearly 700,000 deer hunters, more than 100,000 turkey hunters, over 250,000 small game hunters and more than 1.2 million anglers in Michigan. In 2006, estimated statewide expenditures for hunting and trapping topped $900 million, while fishing brought in some $1.6 billion. Additionally, wildlife watchers contributed another $1.6 billion in annual economic activity. State forests in the NLP contributed to a large portion of this activity.

- There are five significant oil- and gas-producing geologic formations in the NLP with recently increased interest in natural gas exploration and development in the Collingwood Formation. Oil and gas leases on state forest lands in the NLP annually generate several million dollars that are presently directed to the State Park Endowment Fund.

Section 4

This regional plan provides specific management direction for each of the 33 state forest management areas in the NLP. The management direction for each management area focuses on forest type and related wildlife habitat. Section 4 is comprised of 33 management area-specific plans, each containing:

- A summary of use and management;
- An introduction, which includes a projection of harvest acres in this 10-year planning period;
- Management direction for each of the major and some of the minor forest cover types in the management area, including current conditions, desired future conditions, 10-year management objectives and long-term management issues;
- Featured wildlife species and habitat specifications; and
- Discussions of rare species and special resource area management, forest health management, aquatic resources, fire management, recreation, access and other region-specific issues, such as oil and gas development.

Management direction related to other issues or uses (forest health, fire management, recreation, access or oil and gas development) is only provided in the context of forest type management. The plans do not contain specific goals related to recreation or oil and gas infrastructure placement and/or development. These issues are addressed in the 2008-2012 Michigan Statewide Comprehensive Outdoor Recreation Plan and other DNR planning documents. Other plans, including the 2001 Strategy for Kirtland's Warbler, provide direction for operational implementation with consideration given to forest health, fire management, recreation, access or oil and gas development.

Plan sections on special resource areas (special conservation areas, high conservation value areas and ecological reference areas) also address management direction for other uses and values (e.g., recreation). This is addressed further in Section 4.

The DNR uses a modified area control approach to maintaining the sustainability of timber on state forest land. Consistent with this approach, the balancing of age and basal area classes over the rotation period for various forest types is a long-term desired future condition within most management areas. For many lowland forest types (particularly for lowland conifer types) the balancing of age classes may not be achievable or prudent due to the unavailability of many acres and the management objective in these types is to promote regeneration for future habitat and other values.

Each management area plan contains a calculation of projected harvest levels, which is framed in terms of projected harvests (in acres) for the major and minor cover types for the following decade. Projected harvest levels are higher during this 10-year planning period due to a concerted effort to accelerate the balancing of age classes for upland cover types in the NLP ecoregion. It is anticipated that this level of harvest activity will decrease in the next planning period (11-20 years from the present), as less aggressive measures will be necessary to continue progression toward the balancing of age classes.

Specific highlights include:

- A breakdown of the dominant forest types: aspen (24 percent), northern hardwoods (10 percent), jack pine (10 percent), oak (10 percent) and red pine (8 percent);

- Proposed timber sales on approximately 350,000 acres over the next decade (an <u>average</u> of about 35,000 acres per year that is subject to year-of-entry variability and other factors);

- Trends which may result in a slight reduction in future red pine acres, due to some conversions to northern hardwoods, jack pine and oak;

- Trends that may also result in fewer acres of oak due to forest health issues such as oak wilt and oak decline, as well as difficulties in regeneration and a transition to mixed oak-pine stands; and

- Opportunities to increase harvest prescriptions in lowland deciduous and conifer cover types – for which assessments are currently in progress.

Section 5

The plan concludes with Section 5, which describes monitoring, reporting, review and revision requirements. It includes:

- Information on monitoring directives;
- DNR protocols for inventory and assessment, surveillance and assessment, compliance monitoring, effectiveness monitoring, validation monitoring and reporting
- A 10-year review and revision periodicity; and
- Known deficiencies in the plan that will need to be addressed in future revisions.

The concepts and actions outlined in the NLP Regional State Forest Management Plan are part of a 10-year plan, one that will be expertly reviewed and revised along the way – ensuring sound and sustainable forest treatments in all management areas.

Section 6

Appendices

Section 7

Forest Planning Glossary