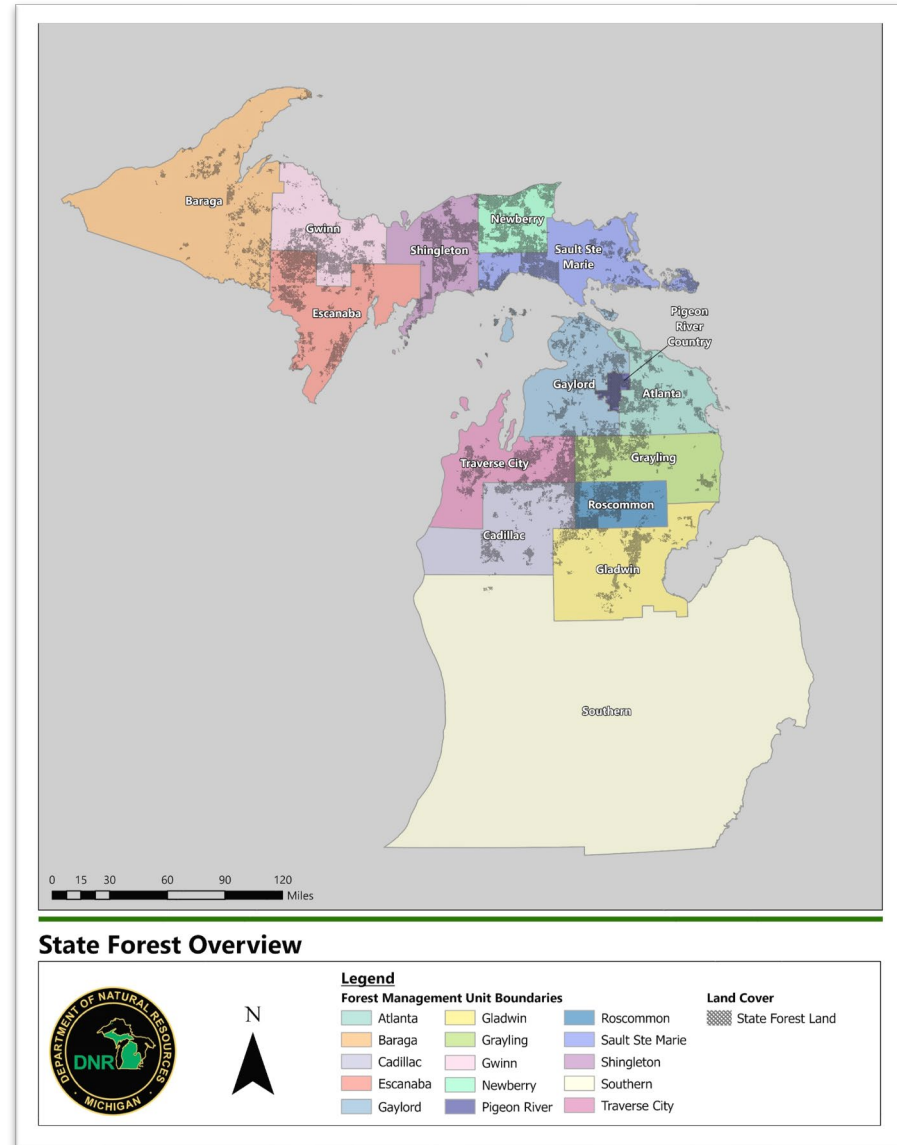


State Forest Management Plan



Topics

- Our team
- Legal authority
- Co-management
- What's new in this plan
- Lines of effort
- Plan organization and structure
- Review period
- Questions





Our Team

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Legal Authority

- NREPA - Act 451 of 1994 - Part 525
- Requires a management plan for:
 - Stable, long-term, sustainable timber supply
 - Promote and encourage outdoor recreation, tourism, and the forest products industry
- Incorporate biodiversity conservation goals
- Identify environmentally sensitive areas
- Identify forest treatments to maintain and sustain healthy, vigorous forests and quality wildlife habitat



[451-1994-III-2.4-MISCELLANEOUS- PART 525 SUSTAINABLE FORESTRY ON STATE FORESTLANDS TOPICS-525](#) - (324.52501...324.52511)

[Section 324.52501](#) - Definitions.

[Section 324.52502](#) - Management of state forest; manner; duties of department.

[Section 324.52503](#) - Forestry development, conservation, and recreation management plan.

[Section 324.52504](#) - Harvest and sale of timber; deposit of proceeds into forest development fund; report.

[Section 324.52505](#) - Third-party certification that forestry standards satisfied; report.

[Section 324.52506](#) - Report.

[Section 324.52511](#) - Repealed. 2004, Act 123, Eff. Dec. 31, 2011.

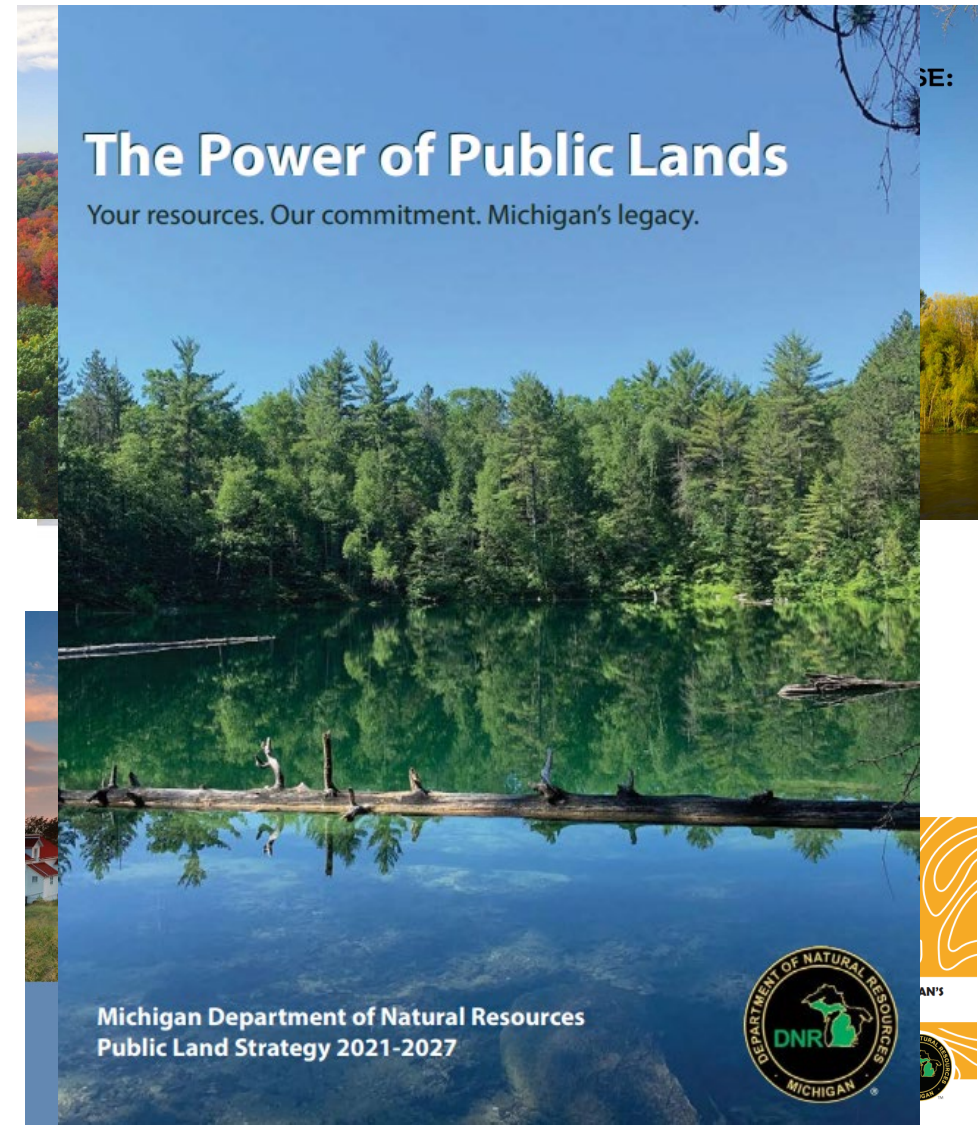
Co-management of the State Forest



- First implemented in 1946 when State Game Areas and State Forests were merged in the northern 2/3 of the State
- Forest Resources Division is the land administering division for the State Forest
- Forest Resources Division and Wildlife Division are jointly responsible for developing the management plans and providing management guidance
- Recreation management on the State Forest has transitioned to Parks and Recreation Division over the last 15 years
- Parks and Recreation Division and Fisheries Division provide guidance through the compartment review process

What's new in the 2024 SFMP

- Improved alignment with other plans
 - DNR Land Strategy
 - Forest Action Plan
 - Wildlife Action Plan
 - Statewide Comprehensive Outdoor Recreation Plan
 - Trails Plan
 - Division Strategic Plans



What's new in the 2024 SFMP

- Robust planning and optimization analytics platform
- Ensures long term sustainability of timber resources and wildlife habitat
- Integrated forest coertype and wildlife habitat management
- Projects future conditions given different management scenarios



Woodstock Optimization Studio
©Remsoft

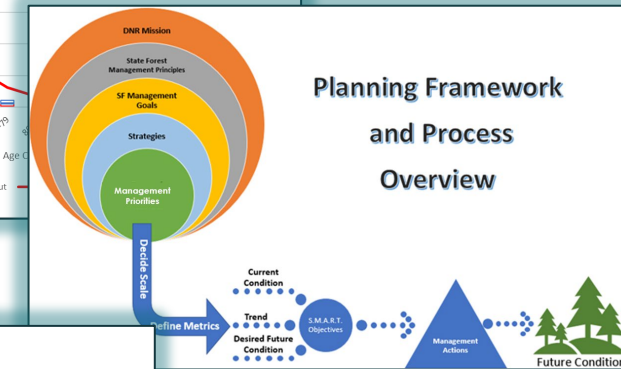
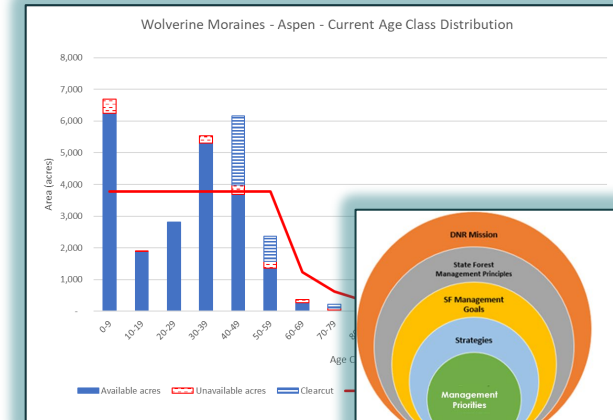
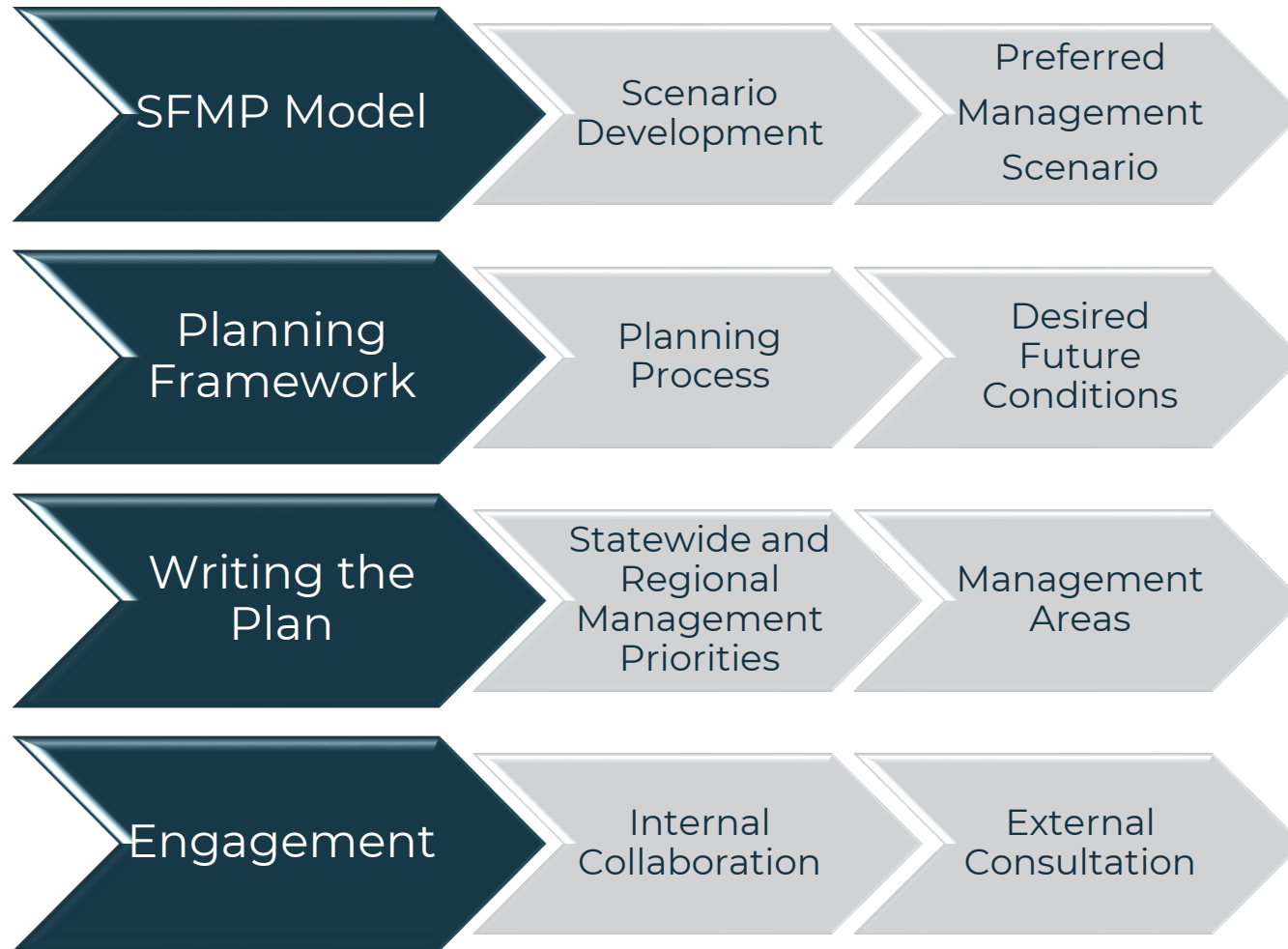


What's new in the 2024 SFMP

- Long term sustainability objectives drive short term harvest levels
- Integrated forest covertime and wildlife habitat management
- Reduced # of management areas down to 35
- Combined 4 existing plans into 1
- Integration of climate smart management direction in each management priority



Lines of Effort



Aquatic resources

Management priority: riparian and lacustrine areas

Principle 1: The state forest is managed to conserve and protect soil and aquatic resources

Goal 1: Conserve or enhance ecosystem diversity

Strategy 1: Provide for the protection and conservation of riparian and aquatic habitat

Why riparian and lacustrine areas matter

A riparian area is the area of transition between aquatic and terrestrial ecosystems. Riparian areas (within 100 meters of a lake or stream) are highly diverse in vegetation, with major cover types including lowland shrubs and conifers, aspen, and cedar. Due to the unique conditions near water, riparian areas harbor a high diversity of plants and wildlife. Riparian areas are critical to watersheds, wildlife, trees, and people for many reasons. For example, these areas provide migratory corridors for species of wildlife and provide cover and refuge areas along the margins of waterbodies for species. They are the last line of defense against pollutants flowing toward a waterway, they protect the quality of bodies of water.

Current condition and trend

Coverages within 100 meters of streams and lakes across the state forest tend to be clustered: lowland shrub, aspen, cedar, and northern hardwoods. Table 1 is a summary of the coverages within riparian and lacustrine areas across the state forest.

Table 1. Coverage composition (in acres) within the riparian and lacustrine areas (100m) in the western, and eastern regions of the state forest. (Source: Michigan DNR Forest Inventory data)

Coverage	W.P.	E.P.	Total	Gr.
Lowland Shrub	31,585	31,921	24,947	88,453
Aspen	30,721	9,389	19,437	59,547
Cedar	13,357	14,504	12,991	40,852
Lowland conifers	16,588	10,621	9,795	36,904
Northern hardwood	13,255	9,559	14,507	37,321

Michigan Department of Natural Resources

Finalizing Michigan's 2024 State Forest Management Plan

The DNR is drafting a new, 10-year State Forest Management Plan to guide forest management activities through the next decade. A key plan focus is ensuring progress toward long-term forest sustainability. This plan replaces the previous 2008 State Forest Management Plan and associated 2013 regional plans, which expire in 2024.

The DNR manages Michigan's 4 million acres of state forests to provide clean air and water, places to recreate and enjoy nature, renewable forest products and high-quality wildlife habitat. The DNR is committed to creating a management plan that provides yearly harvest objectives for all state forests by region. The DNR will maintain third-party sustainability certification for state forest management.

More information is available on the [DNR State Forest Plan website](#).

2024 State Forest Management Plan features

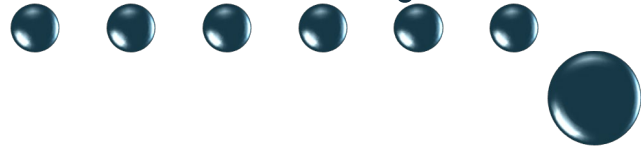
- An updated planning framework that organizes resources into categories aligning with forest sustainability standards.
- A new planning process that focuses on:
 - Establishing current conditions and trends.
 - Identifying desired future conditions.
 - Linking management actions that will achieve desired future conditions.
- Use of a sophisticated modeling platform, providing a long-term look at important measures of forest sustainability including forest composition and structure, timber harvest area and volume, and habitat abundance for featured wildlife species.
- Integrated management strategies to address forest pests, diseases and changes in climate causing forest health and productivity issues.

2024 schedule

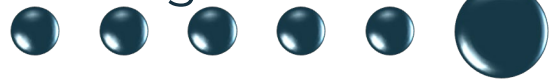
State forests are primarily located in Michigan's upper and northern lower peninsulas.

Modeling Effort

Forest Inventory



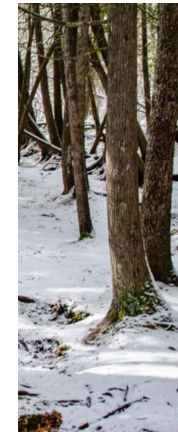
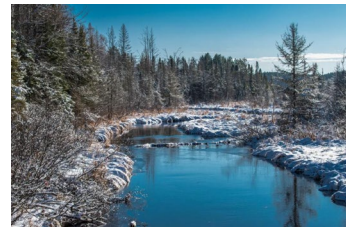
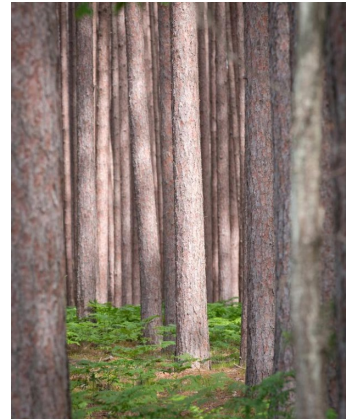
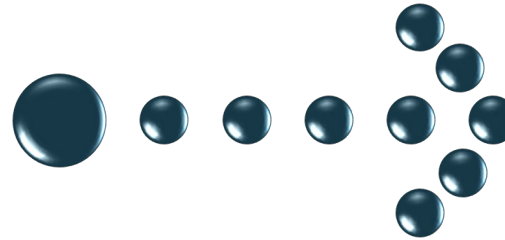
Management
Strategies



Timber and Wildlife
Habitat Goals

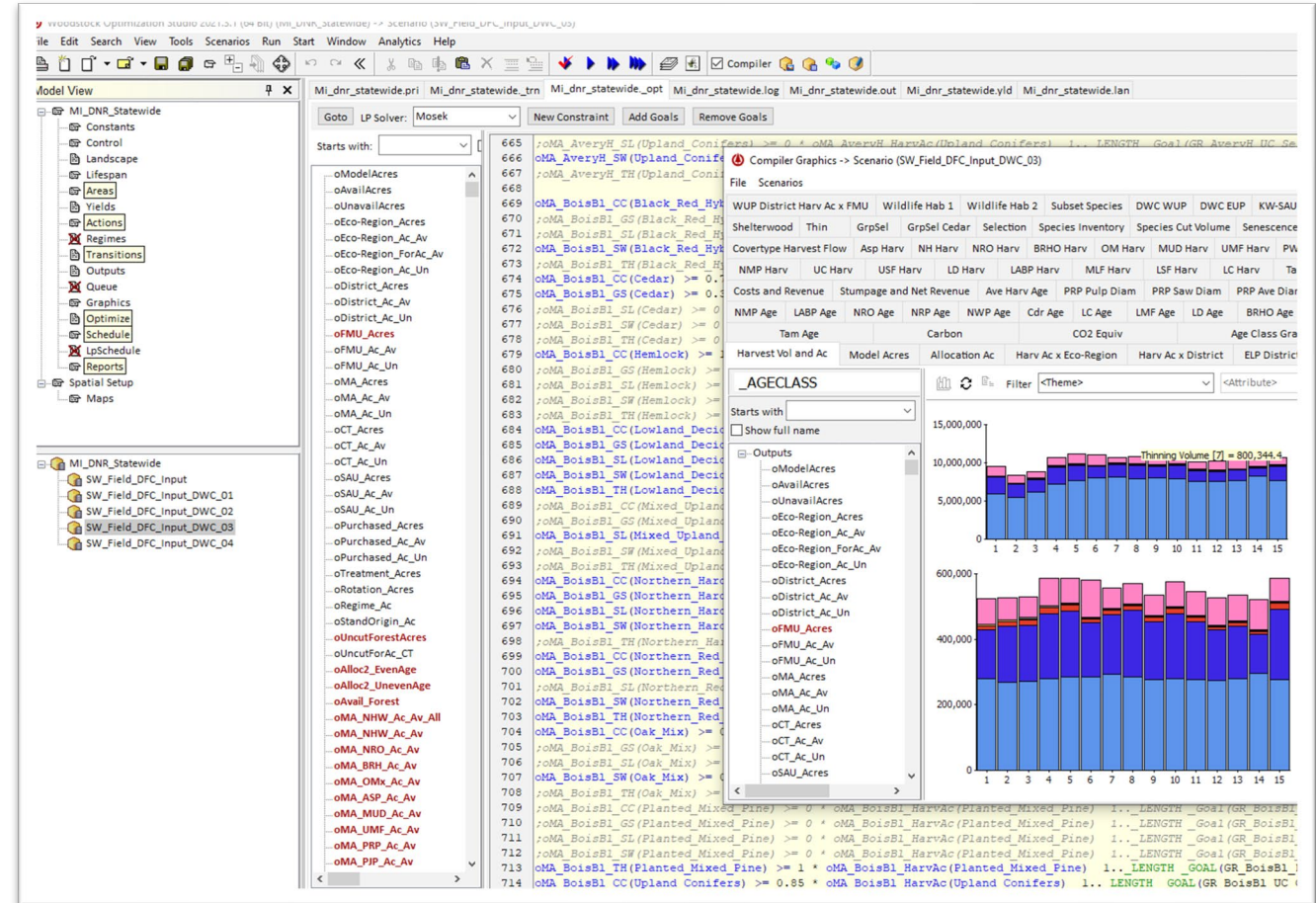


SFMP
Model



Modeling Effort - Overview

- Future forest conditions
 - Age, covertime, basal area
- Landscape habitat abundance
 - Featured species potential habitat
 - Forest diversity matrix
- 10-year projected harvest levels
 - Management areas
 - Special analysis units



Modeling Effort – Landscape Habitat Conditions (LHC)

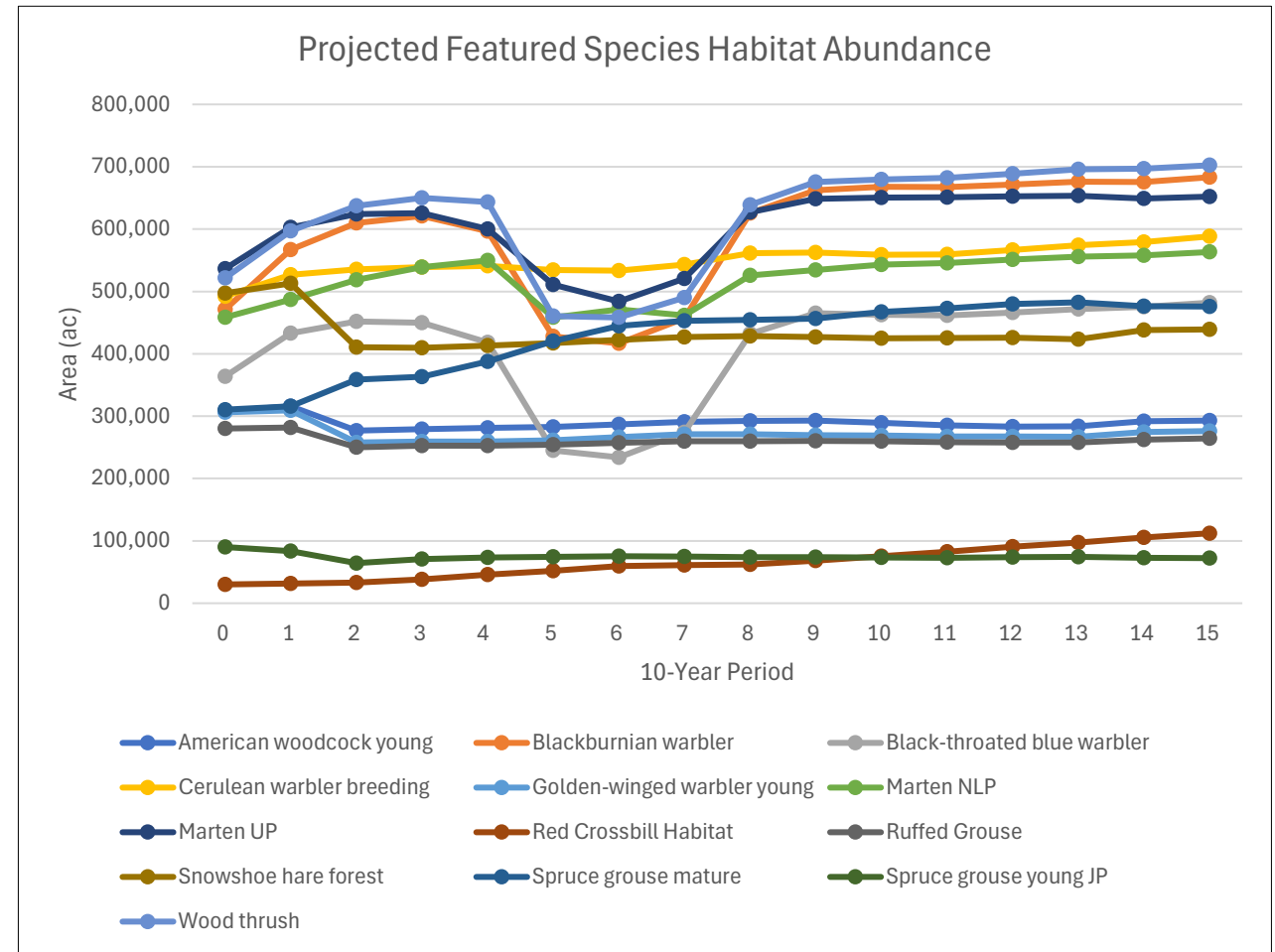
- Broad habitat conditions that are aggregates of covertypes and conditions
- LHCs are of primary management importance
- May be underrepresented at a large scale through standard management
- Outputs were created to track LHCs in scenarios

Table 1. State forest featured species and their associated landscape habitat conditions.

Feature species (Habitat niche if specified)	Young Forest	Mature Forest	Interior Forest	Mast	Mesic Conifer	Big Trees	Natural Disturbance Openings	Mature Forests: Dense Understory	Mature Forests: Open Understory
Kirtland's warbler	X	--	X	--	--	--	--	--	--
Ruffed grouse	X	--	--	--	--	--	--	--	--
Elk	X	--	--	X	--	--	X	--	--
Snowshoe hare	X	--	--	--	--	--	--	--	--
American marten	--	X	X	--	X	X	--	--	--
Cerulean warbler	--	X	X	--	--	X	--	X	--
Blackburnian warbler	--	X	X	--	X	X	--	--	X
Black-throated blue warbler	--	X	X	--	--	X	--	X	--
Wood thrush	--	X	--	--	--	--	--	--	X
Red crossbill (conifer forest)	--	X	--	--	--	X	--	--	X
White-tailed deer	--	X	--	X	--	--	--	--	--
Black-backed woodpecker	--	--	--	--	--	--	X	--	--
Sharp-tailed grouse	--	--	--	--	--	--	--	X	--
Wild turkey	--	--	--	X	--	--	--	X	--
Golden-winged warbler	--	--	--	--	--	--	--	X	--
American woodcock	X	--	--	--	--	--	--	X	--
Black bear	--	--	--	X	--	--	--	--	--
Spruce grouse (conifer forest)	X	X	--	--	--	--	--	X	--

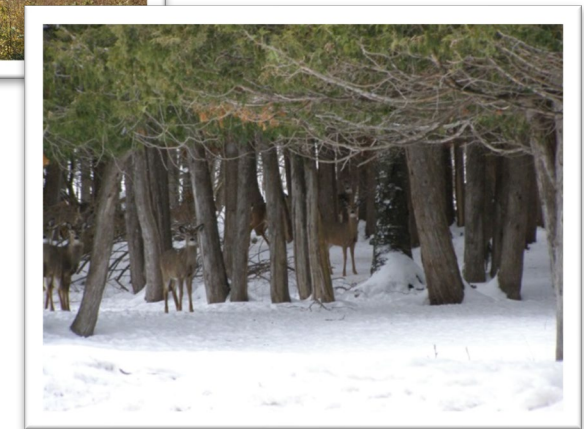
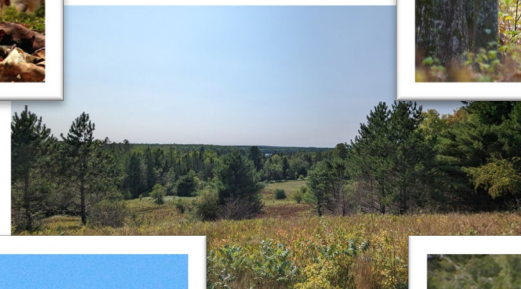
Modeling Effort – Featured Species Habitat

- Model outputs were created to represent the amount of habitat conditions that exist for each species (typically nesting / breeding)
- Enabled us to track habitat abundance over time for each species in each MA in every scenario
- Able to set goals or constraints for each species when necessary (Special Analysis Units)



Modeling Effort - Special Analysis Units

- Grouse Enhanced Management System
- Elk Management Plan
- Pigeon River Country – Concept of Management
- Kirtland's Warbler Management Plan
- Deer Wintering Complexes



Modeling Effort - Deer wintering Complexes (DWC)

Deer Winter Range Goal:

- Sustainably manage shelter and food resources on deer winter range to reduce overwinter deer population fluctuations by:
 - Maintaining or enhancing conifer shelter thereby facilitating deer movement to obtain food and avoid predation
 - Providing high quality food adjacent to shelter



Modeling Effort - Deer wintering Complexes (DWC) Goals

Deer Wintering Complex Goals:

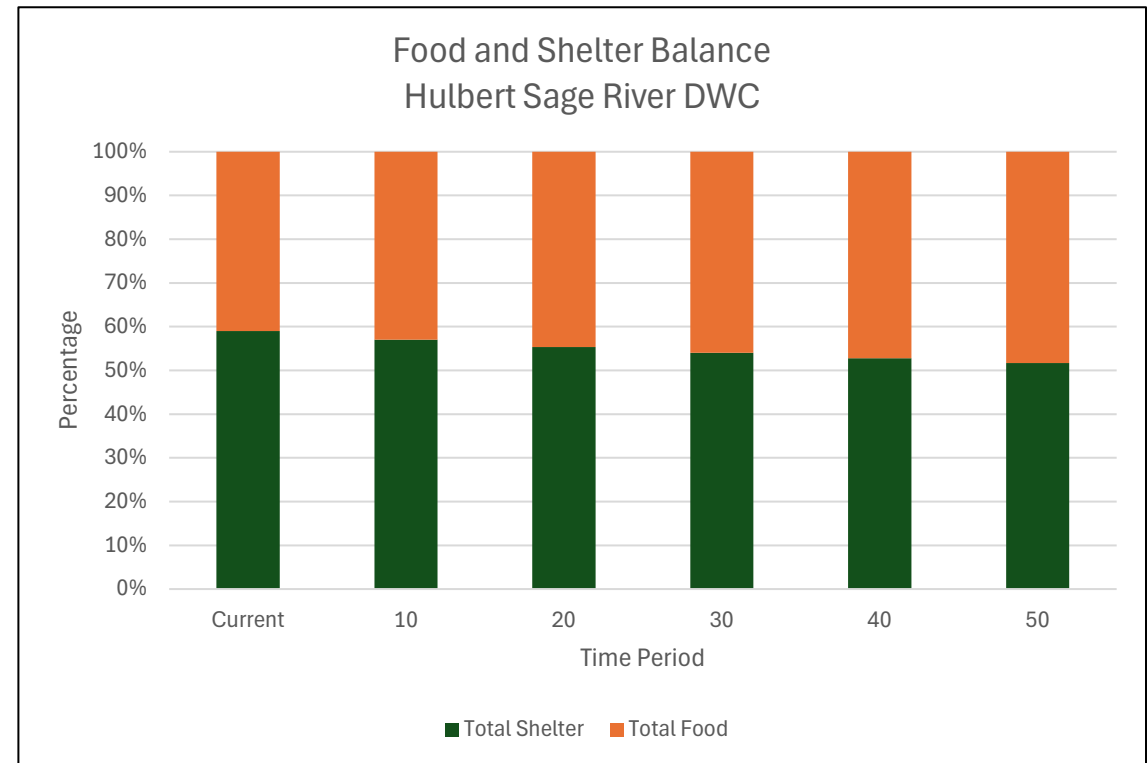
- Balance the area of cover types that provide food and shelter across the DWC over time
- Maintain a sustainable condition within each DWC where:
 - Functional food is always available
 - Functional shelter is always available



Modeling Effort - Deer wintering Complex (DWC)

Balancing the area of cover types that provide food and shelter across the DWC over time:

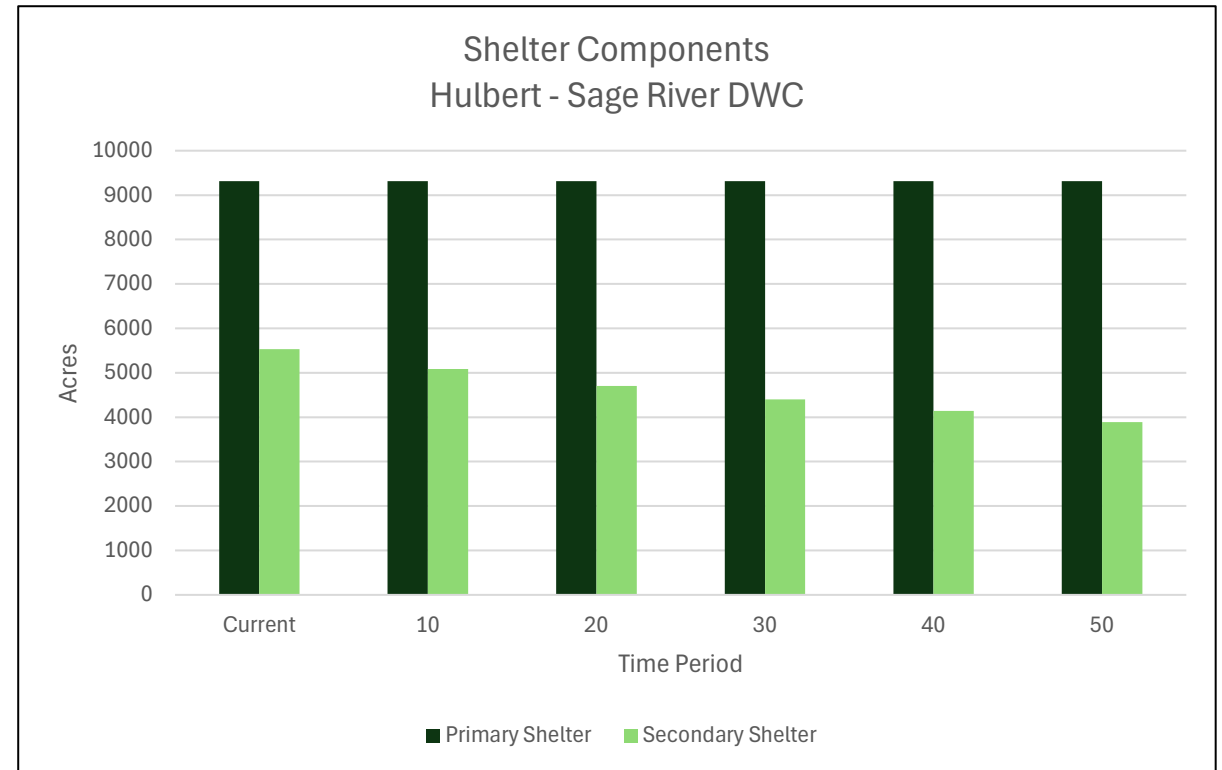
- Achieved by harvesting stands and encouraging them to transition to other cover types as they regenerate
- Natural or artificial regeneration



Modeling Effort - Deer wintering Complexes (DWC)

Maintaining cover types that provide functioning shelter:

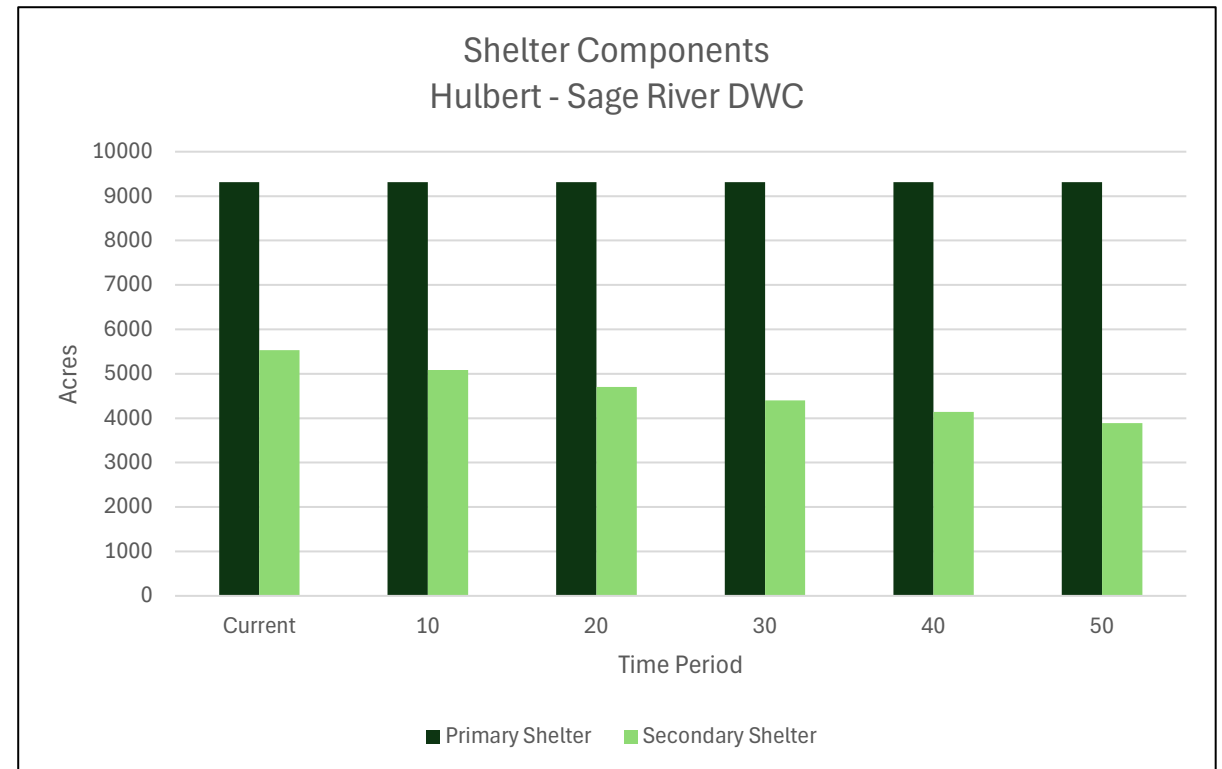
- Primary shelter cover types
 - Cedar
 - Hemlock
- Dominated by long-lived tree species
- Difficult to regenerate when managed
- No active management projected in the SFMP within DWCs



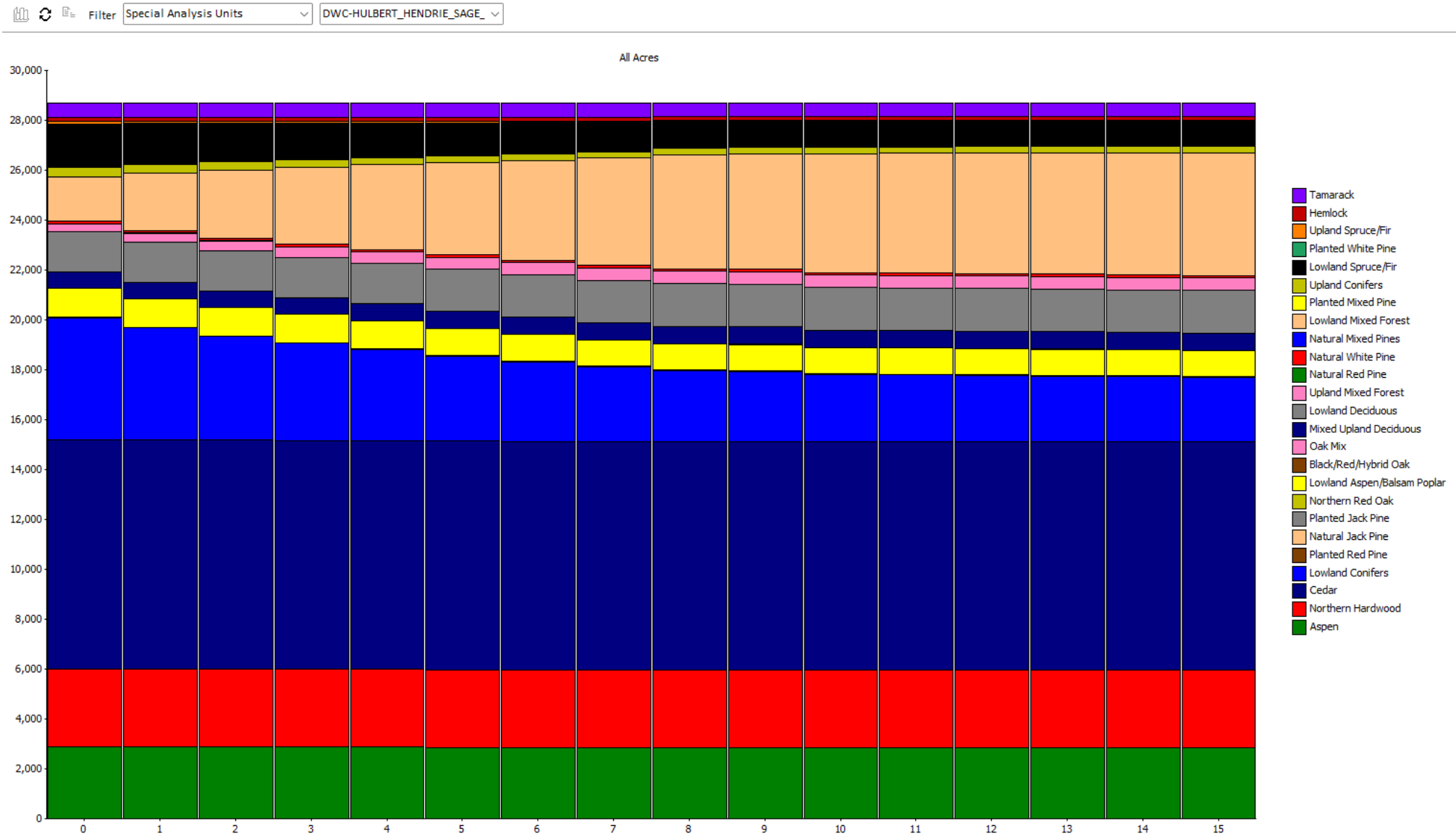
Modeling Effort - Deer wintering Complexes (DWC)

Maintaining cover types that provide functioning shelter:

- Secondary shelter
 - Lowland Spruce / Fir
 - Lowland Conifer
- Contain shorter lived tree species (80 – 150-year life span)
- Management is necessary to maintain in healthy condition
- Can be converted to food when deciduous species are mixed in

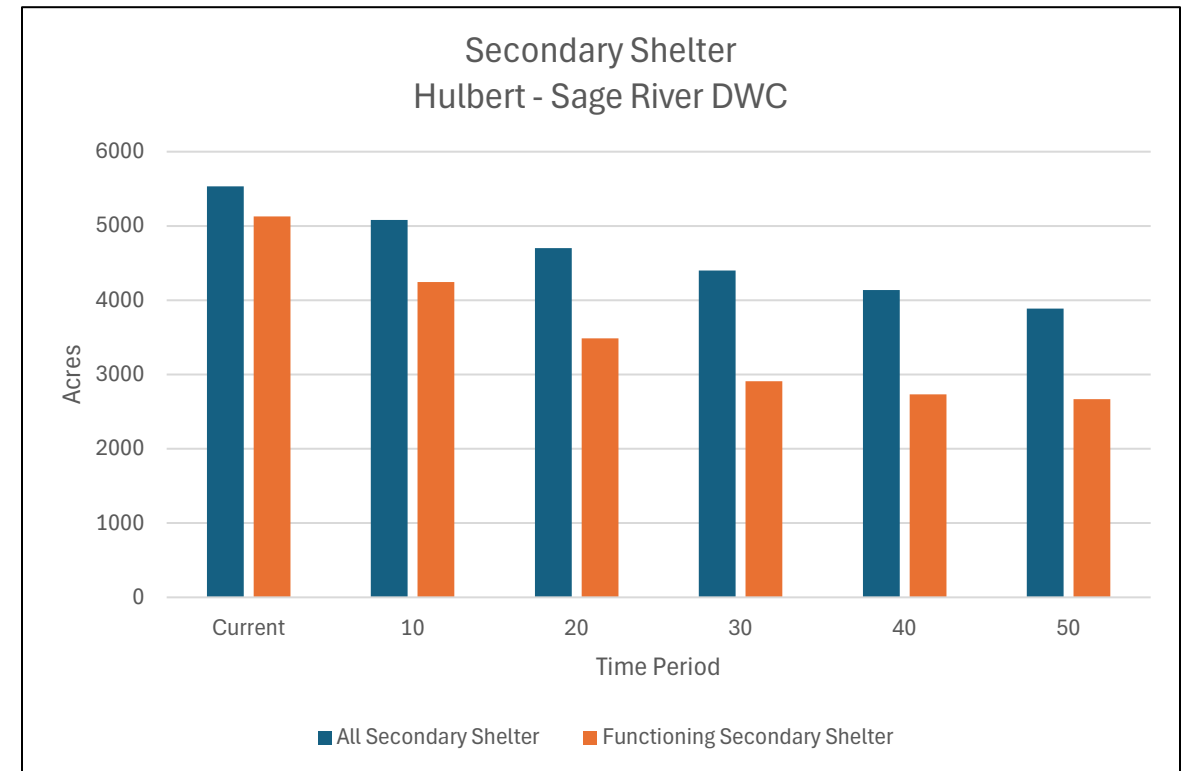


Cover type conversions



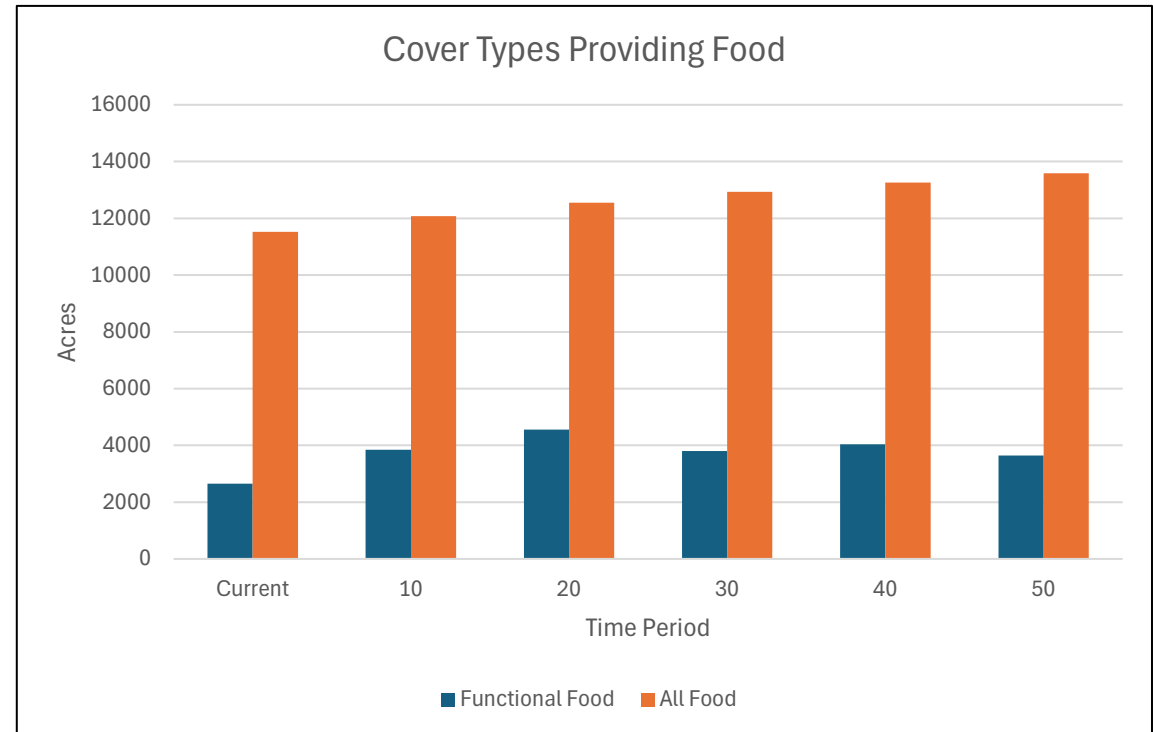
Modeling Effort - Deer wintering Complexes (DWC)

- Secondary Shelter Management
- Actively managed using area regulation principles
- 75 – 90% of all secondary shelter remains as functional shelter during management

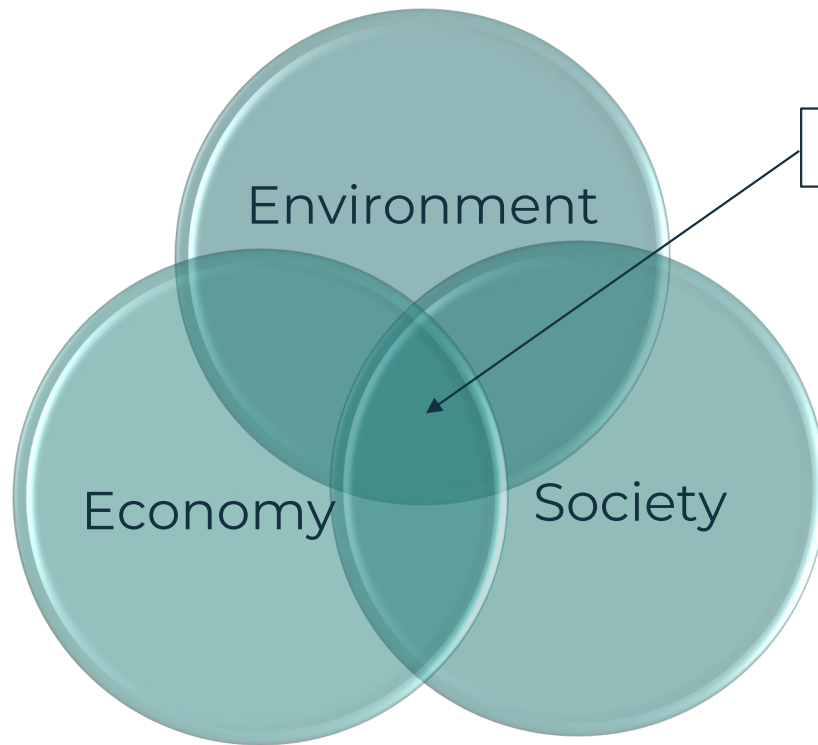


Modeling Effort - Deer wintering Complexes (DWC)

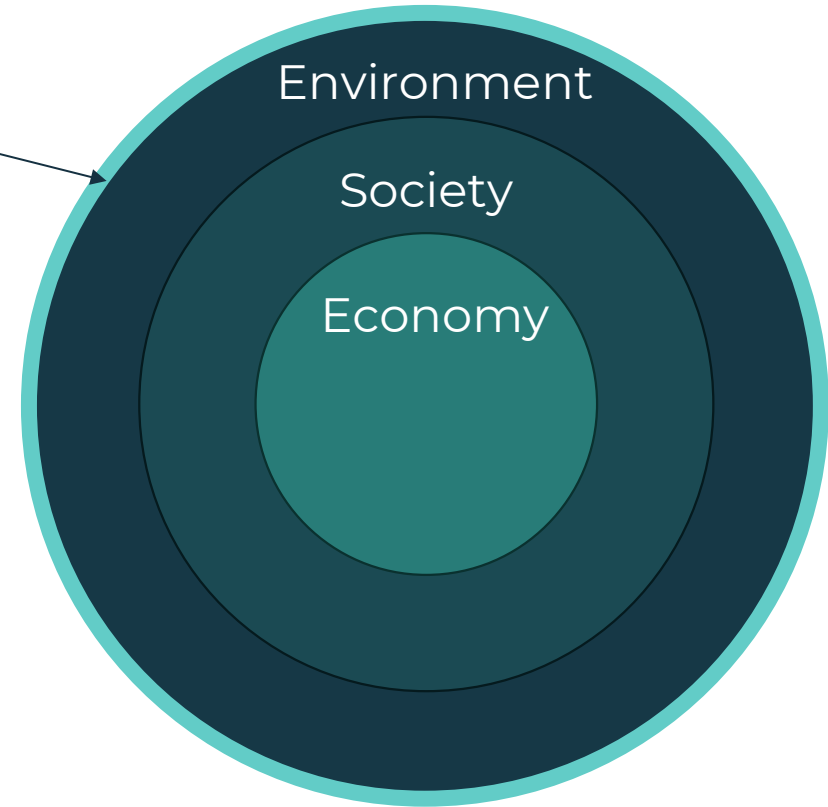
- Cover types providing food
 - Aspen
 - Northern Hardwoods
 - Lowland Mixed Forest
- Actively managed using area regulation principles
- 20-30 % is providing functional food at any time



Planning Framework Effort



Old model – weak sustainability



New model – strong sustainability

Planning Framework Effort

Established 7 Management Principles that are aligned with **Montreal Process Criterion & Indicator Framework** for measuring progress toward forest sustainability.

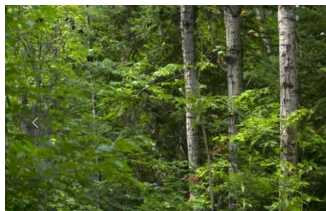
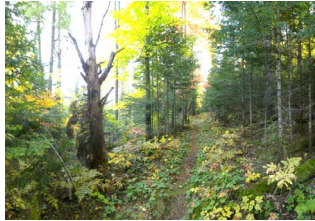
The state forest is managed to...

1. conserve or enhance biological diversity.
2. maintain productive capacity.
3. promote ecosystem health and vitality.
4. conserve and protect soil and aquatic resources.
5. provide opportunities for social and economic benefits.
6. respond to a changing climate.
7. protect cultural and historic resources.





Our mission: We are committed to the conservation, protection, management, use and enjoyment of the state's natural and cultural resources for current and future generations.

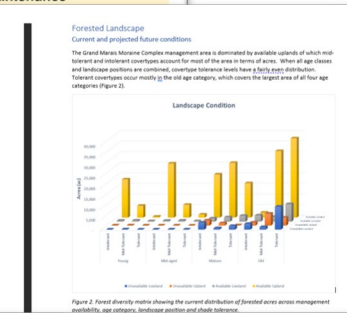
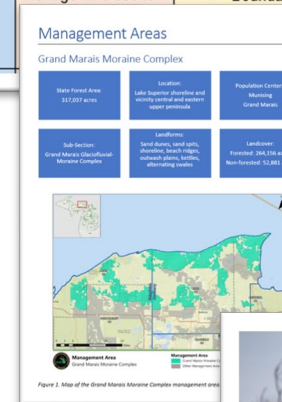


Planning Framework and Process Overview

Writing Effort

- Transition from planning framework to topic-based plan organization
- Managing at different scales
 - Section 3: Statewide and regional management priorities
 - Section 4: Landscape level coertype and habitat management goals at the management area level and special analysis units

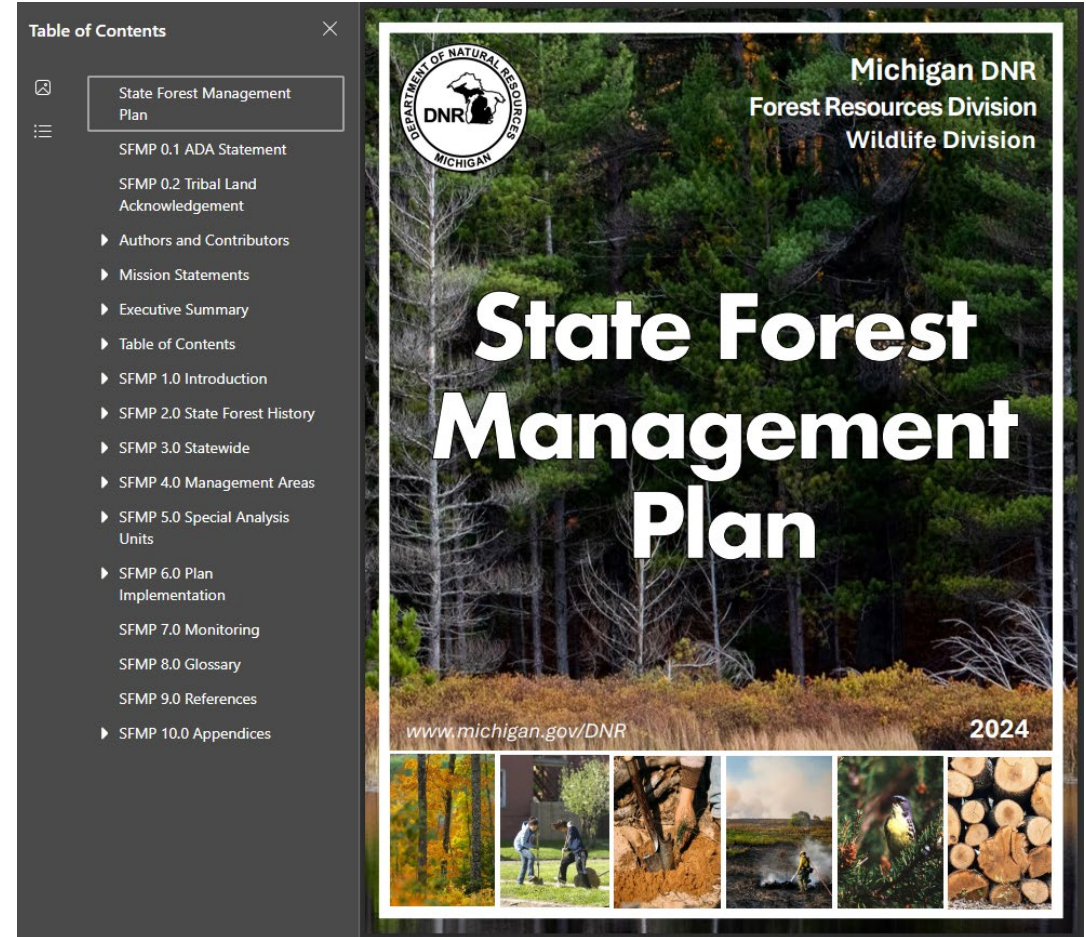
Principle 5: The state forest is managed to provide opportunities for social and economic benefits.		
Goal	Strategies	Management Priority
Provide public access for social opportunities on the state forest.	Maintain infrastructure to ensure public access.	<ul style="list-style-type: none">• State forest roads• Boating access sites• Non-motorized areas• ADA Compliant Access
	Provide and manage recreation activities for residents and visitors and to promote tourism.	<ul style="list-style-type: none">• Motorized recreation trails• Non-motorized recreation trails• Dispersed recreation• Hunting areas• State Forest Campgrounds• Shooting Ranges
	Manage land use to	<ul style="list-style-type: none">• Boundary maintenance



Plan Organization & Structure

Executive Summary

1. Introduction
2. State Forest History
3. Statewide and Regional Planning
4. Management Area Planning
5. Special Analysis Units
6. Implementation
7. Monitoring and Revision
8. Glossary
9. References
10. Appendices



Looking Ahead





Providing Input

Email us at: ForestPlanComments@Michigan.gov

More Info at: [State forest planning \(michigan.gov\)](http://Stateforestplanning(michigan.gov))





Thank you!