

4.28 MA 28 – Strickler Aspen Management Area

Summary of Use and Management

Vegetative management in the Strickler Aspen management area (MA) will emphasize the production of aspen for both timber products and wildlife habitat. Management will strive to sustainably produce various timber products; enhance early successional habitat for grouse; and provide for forest-based recreational uses including deer hunting, grouse hunting and morel mushroom gathering. The Strickler Grouse Management Plan was developed in 1994 to emphasize balanced age classes of aspen for timber production and ruffed grouse habitat. This area is bounded by the Strickler Road on the north, the Old Stage Road on the south, the East Branch of the Black River on the west and the Hog Island Creek on the east and encompasses 2,168 acres. Some roadways have been intentionally gated closed after harvest by Director's Order to create a walk-in game bird hunting opportunity and to protect the roads. The Ruffed Grouse Society donated money for timber sale preparation and installation of gates and signs to help develop this area. Expected issues in this 10-year planning period include: illegal off-road vehicle use, introduction and spread of invasive species and introduced pests and diseases.

Introduction

The Strickler Aspen management area is located in the central portion of the eastern Upper Peninsula in west Mackinac County. It has 19,253 acres of state-owned land. Intensive aspen management for timber production and ruffed grouse habitat is the primary attribute of this management area. Additional attributes which were important in identifying this management area include:

- The management area falls within the Niagaran Escarpment and Lake Plain subsection 8.1 of the eastern Upper Peninsula ecoregion (Albert, 1995).
- The dominant landform is the Newberry Moraine which consists of lacustrine sand and gravel with small streams.
- The cover types within this management area have been highly altered from circa 1800 vegetation types to the current dominance of aspen.
- Recreational opportunities including: snowmobiling, camping, deer and grouse hunting, trout fishing and mushroom picking.

The Old Stage Road, a primary travel route for early settlers, is within the management area.

The state owned land in this management area is contiguous. The Strickler Aspen management area falls within the Sault Forest Management Unit. The predominant cover types, acreages and projected harvest acres for the management area are shown in Table 4.28.1.

Table 4.28.1. Current cover types, acreages, projected harvest acres and projected ten-year cover type acreage for the Strickler Aspen management area, eastern Upper Peninsula ecoregion (2012 Department of Natural Resources inventory data).

Cover Type	Cover %	Current Acreage	Hard Factor Limited Acres	Manageable Acres	10 Year Projected Harvest (Acres)		Projected Acreage in 10 Years	Desired Future Harvest (Acres)	
					Final Harvest	Partial Harvest		Final Harvest	Partial Harvest
Aspen	36%	6,884	42	6,842	101	0	6,884	1,141	0
Cedar	13%	2,508	474	2,034	30	0	2,508	127	0
Red Pine	8%	1,603	0	1,603	0	452	1,603	178	452
Lowland Open/Semi-Open Lands	7%	1,360	0	1,360	0	0	1,360	0	0
Northern Hardwood	7%	1,344	0	1,344	0	816	1,344	0	616
Lowland Conifers	6%	1,161	585	576	192	0	1,161	64	0
Lowland Aspen/Balsam Poplar	6%	1,107	184	923	0	0	1,107	154	0
Upland Mixed Forest	3%	647	0	647	0	148	647	72	148
Upland Open/Semi-Open Lands	3%	583	0	583	0	0	583	0	0
Misc Other (Water, Local, Urban)	1%	107	0	107	0	0	107	0	0
Others	10%	1,949	439	1,510	296	167	1,949	192	167
Total	100%	19,253	1,724	17,529	619	1,583	19,253	1,928	1,383

Others include: upland mixed forest, mixed upland deciduous, lowland spruce/fir, lowland mixed forest, paper birch, lowland deciduous, upland spruce/fir, planted mixed pines, upland conifers, white pine and natural mixed pines.

Strickler Aspen



Figure 4.28.1. Location of the Strickler Aspen Management Area (dark green boundary) in relation to surrounding state forest lands, other ownerships and Lake Michigan.

4.28.1 Forest Cover Type Management Direction

The following sections contain information on vegetation management direction in the form of Desired Future Conditions, 10-Year Management Objectives and Long-Term Management Objectives for each of the major cover types or forest communities within the management area. This information applies to those portions of the forest where active management (i.e., timber harvest, prescribed fire, planting and mowing) will be conducted. In other portions of the state forest, passive management resulting in natural succession will achieve ecological objectives. While most stands have a variety of tree species and other vegetation, they are classified by the predominant species.

All of the following cover types are valued commercially for their timber products; ecologically as sources of habitat for numerous species; and for the variety of recreational opportunities they provide. Harvesting these cover types will provide for a continuous flow of forest products and values.

Section 4.28.1.1 Forest Cover Type Management - Aspen

Current Condition

Aspen occurs on 6,884 acres (36%) of the management area (Table 4.28.1). Aspen is distributed throughout the management area on a range of sites from dry-poor nutrient to mesic-medium nutrient with Kotar habitat types of PARVAa, ATFD and AFPO (see appendix E). Accessible aspen has been consistently harvested and regenerated over (Figure 4.28.2). The majority of the aspen stands in this management area have conifer trees mixed in. About 30% of the aspen in this management area is within the Strickler Grouse management area. The Strickler Grouse Management Plan emphasizes balanced age classes of aspen for timber production and ruffed grouse habitat.

Currently there are 437 acres of aspen with a final or regeneration harvest pending. There are 161 acres of other cover types that are expected to convert to aspen after harvest. These acres are shown in Figure 4.28.2 in the regeneration prescriptions column. There are 42 acres of aspen that have site conditions limiting their harvest this entry period. These hard factor limited acres have been removed from the total number of manageable acres available for harvest calculations. Inaccessible stands of aspen will gradually succeed to more shade tolerant species.

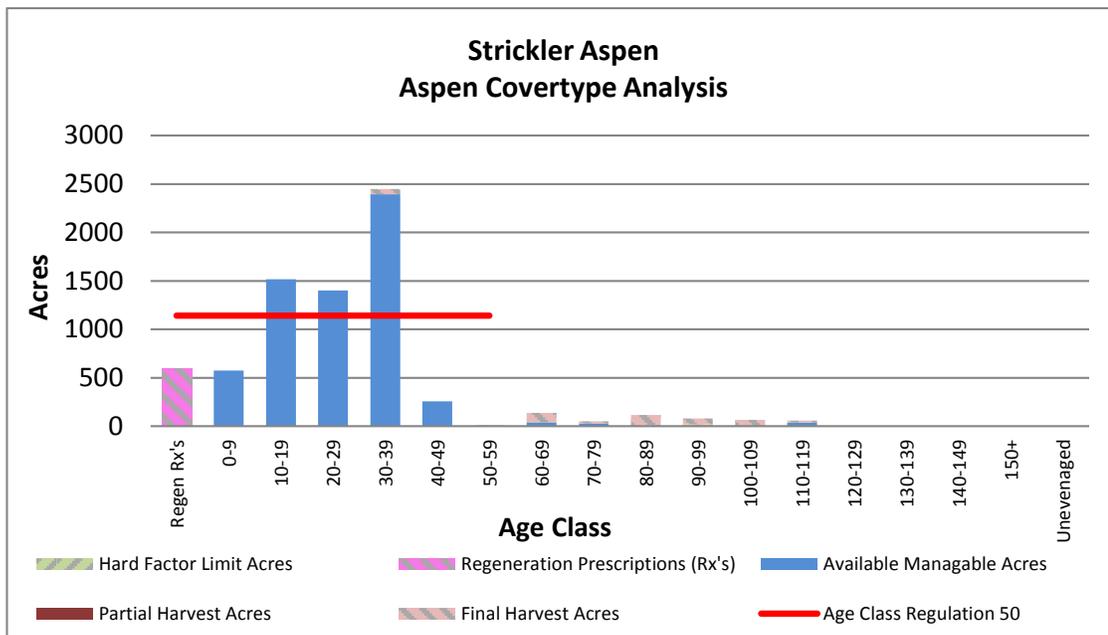


Figure 4.28.2. Age-class distribution of aspen in the Strickler Aspen management area (2012 Department of Natural Resources inventory data).

Desired Future Condition

- Aspen will be maintained on operable sites through even-aged management with acres balanced between 0-59 years of age providing for a regulated harvest, wildlife habitat and recreational opportunities.

10-Year Management Objectives

- The projected 10-year final harvest of aspen is 101 acres. The large reduction from the regulated amount is due to the current age-class structure where the majority of stands are immature.

Long-Term Management Objectives

- Balance the age-class structure of accessible aspen stands providing for a regulated harvest of approximately 1,141 acres per decade (red line in Figure 4.28.2).

Section 4.28.1.2 Forest Cover Type Management - Cedar

Current Condition

Cedar stands occur on 2,508 acres (13%) of the management area (Table 4.28.1). Younger age classes of cedar are non-existent in this management area. Cedar stands within the deer wintering complex special conservation areas will be managed to maintain wintering habitat for deer and to retain this forest type in the landscape. Maintaining a closed canopy structure provides important cover for deer and reduces snow depth within the stands. Outside the deer wintering area, harvest cedar in places where cedar regeneration is expected.

Currently there are no acres of cedar prescribed for final harvest (Figure 4.28.3). There are 474 acres of cedar that have site conditions limiting their harvest at this time. These hard factor limited acres have been removed from the total number of manageable acres available for harvest calculations. Cedar stands in areas inaccessible for harvest will be subject to natural processes resulting in a range of successional stages.

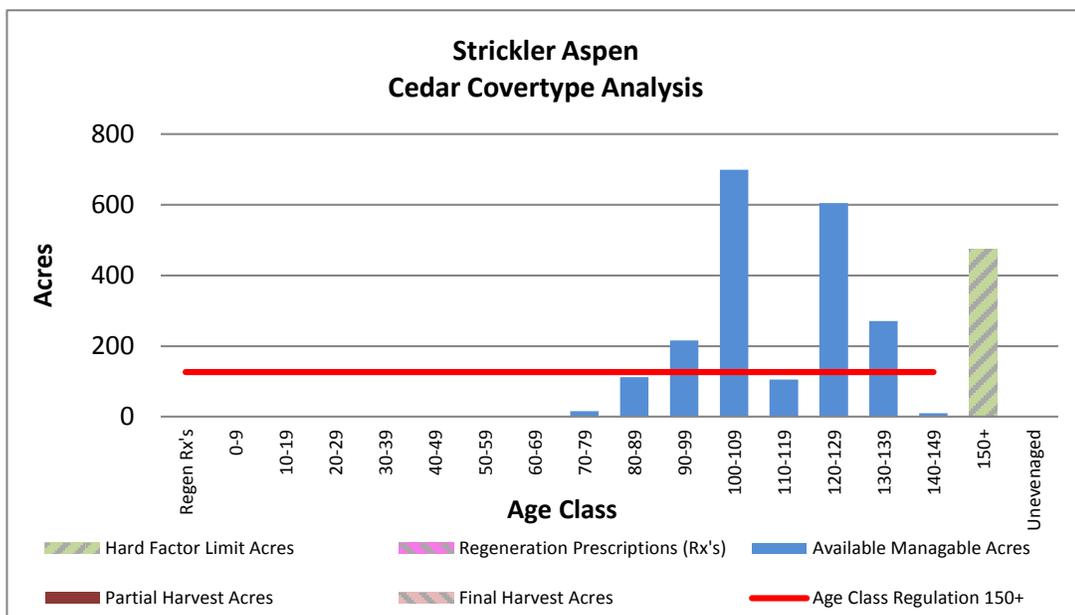


Figure 4.28.3. Age-class distribution of cedar in the Strickler Aspen management area (2012 Department of Natural Resources inventory data).

Desired Future Condition

- Where deer wintering activities are not a concern, cedar will be maintained on operable sites through even-aged management.

10-Year Management Objectives

- The projected 10-year final harvest of cedar is 30 acres. However harvest of this type, if it occurs, may vary widely from the projected harvest in order to meet the long-term management objectives.
- Ensure that cedar and/or hemlock recruitment/regeneration is reliable if harvesting in this cover type.

Long-Term Management Objectives

- Within deer wintering complexes, focus cedar management on winter habitat for deer;
- Look for opportunities to test different methods of regenerating cedar, especially outside of the deer wintering areas.
- Consider harvest of cedar before rotation age to begin to diversify the age classes.
- Using a 150-year regulated rotation would allow approximately 127 acres of cedar to be final harvested per decade.

Section 4.28.1.3 Forest Cover Type Management – Red Pine

Current Condition

Red pine stands are found on 1,603 acres (8%) of the management area (Table 4.28.1). Red pine is distributed on a range of sites from very dry-poor nutrient to mesic-medium sites. Kotar habitat types include PARV, PARVAa, ATFD and AFPO (see appendix E). These sites produce high-quality red pine. The majority of the red pine are planted stands. Red pine stands on these high-quality sites are usually thinned every ten years, reducing basal area to approximately 120 square feet per acre until replacement harvest age at 80. Regeneration harvests followed by re-planting have resulted in stands in younger age classes (Figure 4.28.4). As most of the planted red pine stands are on very productive sites, prescribed burning or the use of herbicide may be necessary to control competing vegetation thus ensuring successful regeneration. Use shelterwood or seed tree methods of final harvest where natural red pine regeneration would be successful.

Currently there are 44 acres of red pine prescribed with a final harvest and 163 acres prescribed for partial harvest or thinning. There are no acres of red pine that have site conditions limiting their harvest. Red pine found in inaccessible or sensitive areas may remain through biological maturity.

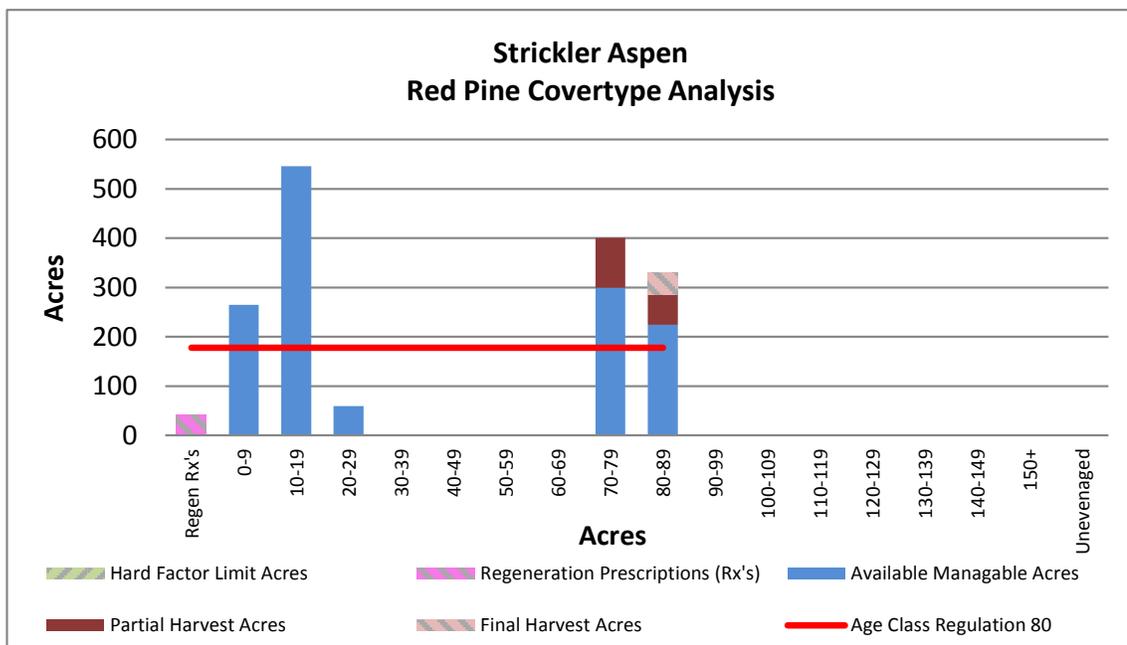


Figure 4.28.4. Age-class distribution of red pine in the Strickler Aspen management area (2012 Department of Natural Resources inventory data).

Desired Future Condition

- Red pine stands will be maintained and managed through thinning until stand replacement harvest at economic maturity; and
- Acres will be balanced between 0-89 years of age to provide for continual harvest, wildlife habitat and recreational opportunity.

10-Year Management Objectives

- The 10-year projected final harvest of red pine is zero acres with the reduction from the regulated amount due to the current age-class structure where there are a large number of acres in the 0-9 and 10-19 year-old age classes.
- The 10-year projected partial harvest, or thinning, of red pine is 452 acres.

Long-Term Management Objectives

- Balance the age-class distribution of red pine providing for a regulated harvest of approximately 178 acres per decade.
- Stands will be periodically thinned until they meet silvicultural criteria and then regenerated.

Section 4.28.1.4 Forest Cover Type Management – Lowland Open/Semi-Open Lands

Current Condition

Lowland open/semi-open lands occur on 1,360 acres (7%) of the management area (Table 4.28.1). This category is a combination of lowland shrub (1,184 acres), marsh (153 acres), bogs (23 acres) and treed bog (zero acres). These cover types are valued ecologically as sources of habitat for numerous species of wildlife. Many of these stands are found in association with streams and rivers.

Desired Future Condition

- Lowland open/semi-open lands will be retained in their current state to ensure an adequate level of wildlife habitat and recreational opportunity.

Long-Term Management Objectives

- Most of these stands will be maintained without active management.

Section 4.28.1.5 Forest Cover Type Management – Northern Hardwoods

Current Condition

Northern hardwood occurs on 1,344 acres (7%) of the management area (Table 4.28.1). The majority of the hardwood stands have been managed as uneven-aged. Northern hardwood stands are distributed on a range of sites from dry-mesic poor nutrient to mesic-rich nutrient with Kotar habitat types of PARVAa, ATFD, AFPO and AFOAs. Many of these sites have high potential to grow quality trees. These northern hardwood stands are managed with single tree selection harvests generally when basal area is over 120 square feet per acre decreasing stocking levels to a basal area of approximately 80 square feet per acre. Consider shelterwood or other even-age treatments in lower quality stands. Recent harvests using even-aged systems are shown in the immature column in Figure 4.28.5.

Beech bark disease has been found in this area and salvage of affected beech is ongoing. Northern hardwood stands that had a component of beech now have decreased stocking levels due to beech bark disease mortality and salvage harvesting. Further selection harvesting will be delayed due to resultant lower than normal residual basal area.

Currently, there are 269 acres prescribed for partial or selection harvest (Figure 4.28.5). At this time, there are no acres of northern hardwood with hard factor limits affecting harvest.

Desired Future Condition

- Northern hardwood will be maintained on operable sites by using individual tree selection harvesting to provide uneven-aged composition and structurally diverse stands.

10-Year Management Objectives

- Continue salvage harvests of beech affected by beech bark disease using Beech Bark Disease Management Guidelines.
- Evaluate beech dominated forests to determine the impact of beech bark disease on regeneration. Track beech regeneration in these stands.

- To favor regeneration of hardwood other than beech, consider herbicide applications and the planting of hard mast producing trees, including oak and disease resistant beech.
- The projected 10-year partial harvest of northern hardwood is 816 acres.

Long-Term Management Objectives

- Select harvest northern hardwood stands on a 20-year cycle.

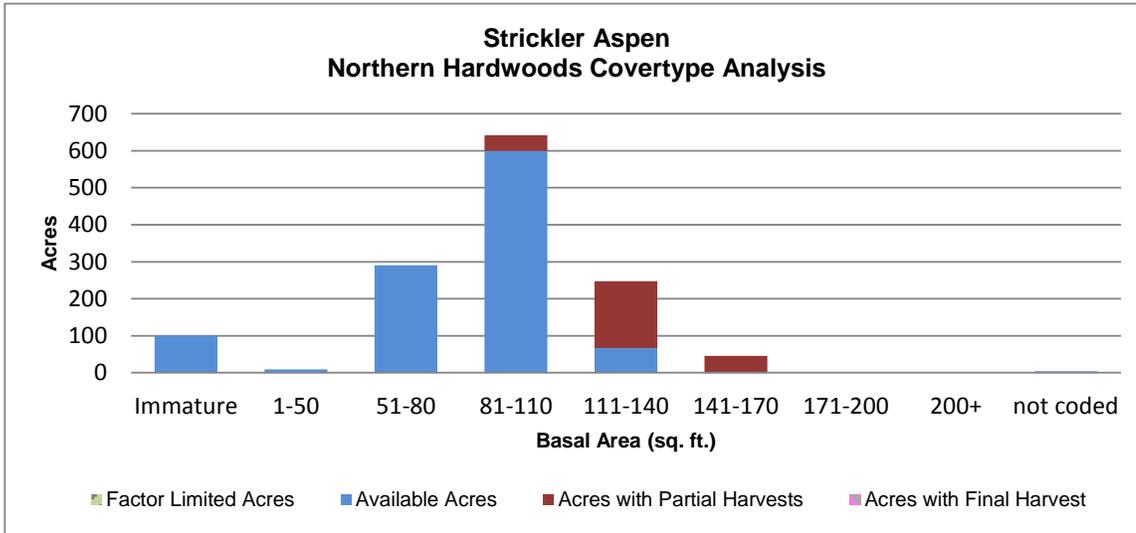


Figure 4.28.5. Basal area distribution of northern hardwood in the Strickler Aspen management area (2012 Department of Natural Resources inventory data).

Section 4.28.1.6 Forest Cover Type Management – Lowland Conifer

Current Condition

Lowland conifers occur on 1,161 acres (6%) of the management area (Table 4.28.1). Lowland conifer stands have been successfully harvested and regenerated through natural regeneration which has somewhat diversifying the age classes (Figure 4.28.6).

At this time, there are two acres of lowland conifers prescribed for regeneration harvest. Approximately 585 acres of lowland conifers have site conditions limiting their harvest at this time. These hard factor limited acres have been removed from the total number of manageable acres available for harvest calculations. Conifer stands in inaccessible areas will be subject to natural processes, resulting in a range of successional stages.

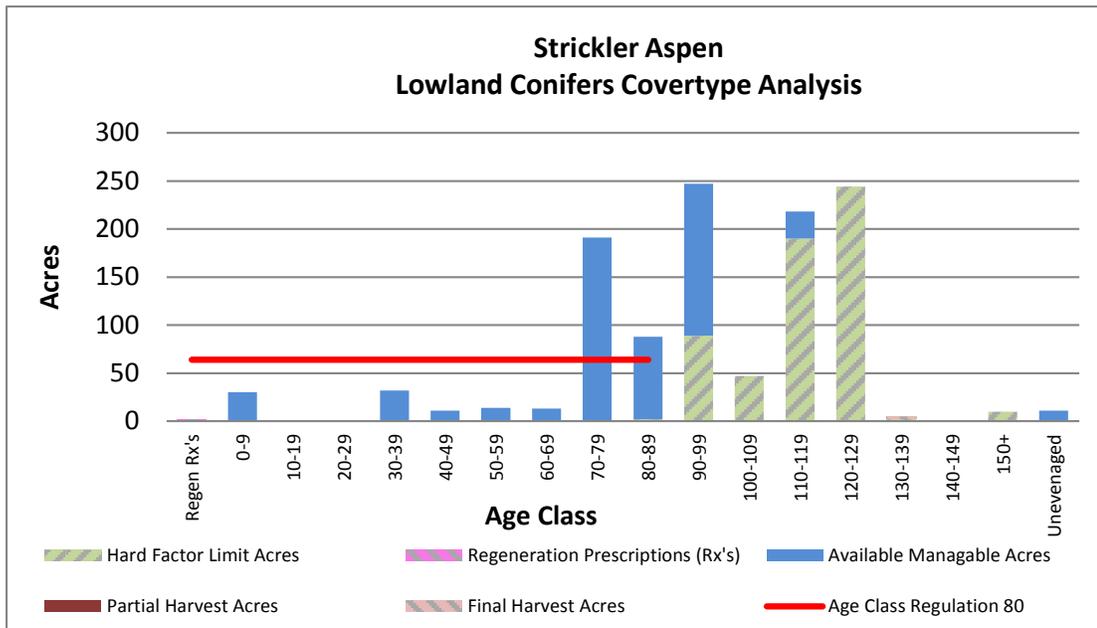


Figure 4.28.6. Age-class distribution of lowland conifers in the Strickler Aspen management area (2012 Department of Natural Resources inventory data).

Desired Future Condition

- Lowland conifers will be maintained on operable sites through even-aged management, with acres balanced between 0-89 years of age to provide for continual harvest, wildlife habitat and recreational opportunities.

10-Year Management Objectives

- The 10-year projected final harvest of lowland conifers is 192 acres. This increase from the regulated amount is due to the current age-class structure where the majority of stands are in older age classes.

Long-Term Management Objectives

- Balance the age-class structure of accessible stands. A regulated harvest would allow approximately 64 acres of lowland conifers to be harvested per decade.

Section 4.28.1.7 Forest Cover Type Management – Lowland Aspen/Balsam Poplar

Current Condition

Lowland aspen/balsam poplar occurs on approximately 1,107 acres (6%) of the management area (Table 4.28.1). Over the last 30 years, available lowland aspen/balsam poplar stands have been successfully harvested and regenerated through natural regeneration, resulting in 75% of the acres in these young age classes (Figure 4.28.7). A small portion of the stands have been typed as uneven-aged, having a variety of sizes and ages of trees.

Currently there are 73 acres of lowland aspen/balsam poplar with a final harvest prescribed. There are 184 acres of lowland aspen/balsam poplar that have site conditions limiting their harvest at this time. These hard factor limited acres have been removed from the total number of manageable acres available for harvest calculations. Inaccessible stands of lowland aspen/balsam poplar will eventually succeed to late successional species.

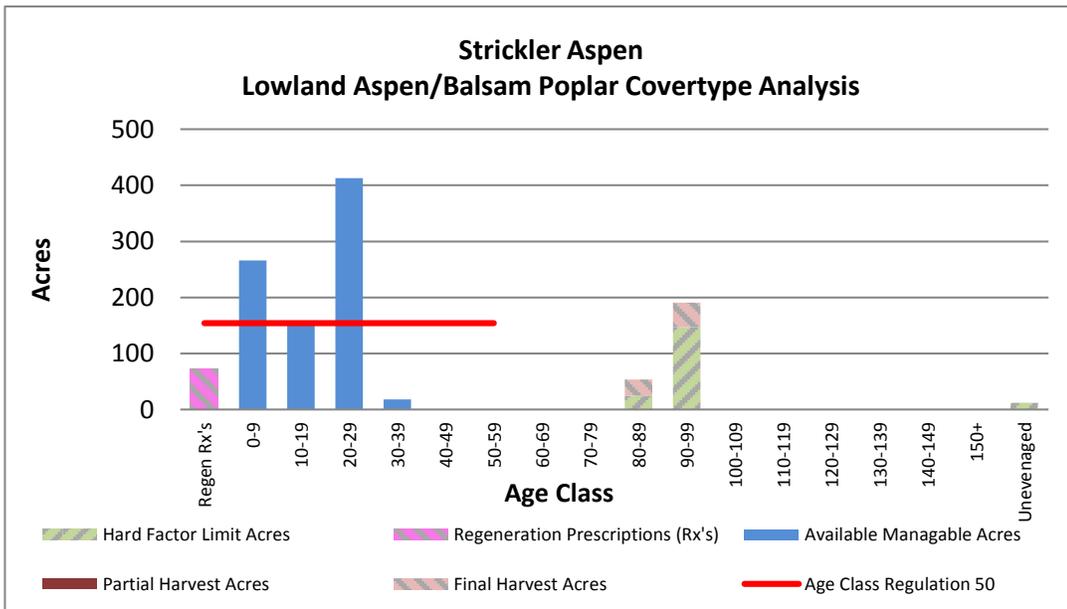


Figure 4.28.7. Age-class distribution of lowland aspen/balsam poplar in the Strickler Aspen management area (2012 Department of Natural Resources inventory data).

Desired Future Condition

- Lowland aspen/balsam poplar will be maintained on operable sites through even-aged management with acres balanced between 0-59 years of age providing for a regulated harvest, wildlife habitat and recreational opportunities.

10-Year Management Objectives

- The 10-year projected final harvest of lowland aspen/balsam poplar is zero acres due to the current age-class structure with the majority of stands in young age classes.

Long-Term Management Objectives

- Balance the age class of accessible lowland aspen/balsam poplar providing for a regulated harvest of approximately 154 acres per decade.

Section 4.28.1.8 Forest Cover Type Management – Other Types

Current Condition

There are many other forest cover types spread across the management area that have less than 5% of the total management area acres (Table 4.28.1). Upland mixed forest (647 acres) and upland open/semi-open lands (583 acres) each have 3% of the total acres. Upland open/semi-open lands includes: herbaceous openland (329 acres), upland shrub (161 acres), low-density trees (77 acres) and bare/sparsely vegetated (16 acres). Other types total 1,949 acres (10%) is comprised of forested cover types with 2% or less of the total management area acres and includes: mixed upland deciduous (426 acres), lowland spruce/fir (334 acres), lowland mixed forest (332 acres), lowland deciduous (244 acres), paper birch (232 acres), upland spruce/fir (226 acres), planted mixed pines (79 acres), upland conifers (51 acres), white pine (16 acres) and natural mixed pines (nine acres).

Most of these cover types are managed as even-aged stands. Following general timber management guidelines, conduct regeneration harvests as stands become available followed by natural regeneration. Mixed cover types with high basal area may be thinned depending on their species composition prior to final harvest.

There are 439 acres of these other minor cover types have site conditions limiting their harvest at this time. These hard factor limited acres have been removed from the total number of manageable acres available for harvest. Inaccessible stands may never be harvested and will be subject to successional processes.

Desired Future Condition

- These cover types may be managed on operable sites contributing to the compositional diversity of the landscape while providing for continual harvest, wildlife habitat and recreational opportunities.

10-Year Management Objectives

- The projected 10-year final harvest is 296 acres of other types.
- The projected 10-year partial harvest is 148 acres of upland mixed forest and 167 acres of other types.

Long-Term Management Objectives

- Continue management of these other cover types to provide a sustainable yield of forest products and wildlife habitat.

4.28.2 – Featured Wildlife Species

This management area includes an Upper Peninsula Grouse Enhanced Management System. The Strickler Grouse Management Plan was developed in 1994 to emphasize balanced age classes of aspen for timber production and to enhance habitat and hunting opportunities for ruffed grouse, woodcock, deer, turkey and hare. All ages of aspen are present and this is a popular spot for wildlife based recreation. Habitat treatments may include managing aspen on a shortened rotation with multiple age classes and smaller stand sizes. The remainder of the aspen (outside the boundary) will be managed based on the direction in the management area write up. Management priorities include the retention of mesic conifers and coarse woody debris in managed stands. The second most prevalent cover type is cedar which is used by wintering deer and associated wildlife species.

American Woodcock

The goal for woodcock in the eastern Upper Peninsula is to maintain or increase suitable habitat. Management should address the maintenance of adequate early successional habitat to provide feeding, nesting and brood-rearing habitat and opportunity for hunting.

Wildlife habitat specifications:

- Balance aspen age-class distribution within the management area.
- Use silvicultural practices that encourage the aspen component in mixed stands associated with alder, riparian zones or forested wetlands.
- Maintain or increase the aspen cover type within the management area where associated with alder, riparian zones or forested wetlands.
- Maintain rough openings associated with alder, riparian zones or forested wetlands.

Ruffed Grouse

The goal for ruffed grouse in the eastern Upper Peninsula is to maintain or improve habitat. Management should focus on maintaining and balancing the age-class distribution for aspen in priority landscapes.

Wildlife habitat specifications:

- Maintain the aspen cover type and increase the aspen component in mixed stands within the management area.
- Move to balance the age-class distribution of aspen and birch cover types to maintain young forests across the management area.
- Ideal aspen stands will be of 40-160 acres under a 50-60.
- Larger harvest units should have irregular boundaries and include one or two, 1-3 acre unharvested inclusions for every 40 acres exceeding 40 acres in size.
- Evaluate the conifer component in aspen stands, holding or increasing where desirable. Leave conifer under four inches in diameter at breast height in mixed stands and aspen types as immediate residual escape cover and to promote corridors.
- Maintain cherry production for soft mast.

Snowshoe Hare

The goal for snowshoe hare in the eastern Upper Peninsula is to increase available habitat in the ecoregion. In priority landscapes, management should focus on maintaining young aspen adjacent to lowlands, maintaining jack pine, retaining slash, increasing mesic conifer components and increasing beaver abundance.

Wildlife habitat specifications:

- Maintain young aspen and lowland shrub communities such as alder or willow that have a conifer understory or young aspen stands that are adjacent to lowland/swamp conifer and mesic conifers. Hold or increase the conifer component in aspen stands; leave conifers under four inch diameter at breast height.
- Regenerate black spruce stands to young, dense stocking adjacent to uplands.
- In hare habitat, discourage biomass harvesting and chipping operations in this management area.
- Retain down coarse woody debris slash already present (before cutting), and resulting from incidental breakage of tops and limbs in the general harvest area, except on skid trails and landings, to the extent feasible. Retain slash, and create brush piles within timber sales associated with hare habitat. In biomass timber sales, apply Michigan Biomass Harvesting Guidance and retain the maximum residual amount.

White-tailed Deer

The eastern Upper Peninsula goals for white-tailed deer are to: 1) Maintain existing deer wintering complexes and 2) Expand the extent of areas suitable as winter deer habitat, especially in the medium and high snowfall zones. Management should focus on maintaining habitat quality in priority wintering complexes. DNR Department procedure 32.22-07 states "Coniferous swamps are important as winter deeryards and shall be managed primarily for deer. The objective shall be to maintain them for this purpose and through commercial cuttings and silvicultural practices, improve these areas to provide winter cover and food for deer." There is a complex relationship between deer abundance; available summer and winter habitat; timber management; and regeneration tree species, particularly white cedar and hemlock. It is recognized that meeting both timber management and deer goals presents challenges for the department and our stakeholders. Information on deer wintering complexes is currently being updated and new management guidelines are being developed. When completed, these will provide additional direction for managing these critical areas for white-tailed deer.

Wildlife habitat specifications for deer wintering complexes:

- Strive to maintain > 50% of the land area within deer wintering complexes in mixed or pure stands of cedar, hemlock, white and black spruce, white and natural red pine, balsam fir, mixed swamp conifer and mixed upland conifer-hardwood.
- In northern white cedar and hemlock cover types that are commonly occupied by deer during severe winters, especially in medium and high snowfall zones, maintain canopy closure of >65%.
- In deer wintering complexes in low snowfall areas and within ¼-mile of severe-winter cover in the higher snowfall zones, write prescriptions that strive to maintain canopy closure of 40-65%, favoring cedar, hemlock, white spruce, black spruce, balsam fir and white pine.
- Provide winter forage in deer wintering complexes through stands of regenerating hardwood or brush, including preferred species of red maple, sugar maple, aspen, yellow birch, ashes, oaks, dogwood, crabapple, elderberry, high-bush cranberry, sumac and hazel.
- Enhance accessibility to winter browse within deer wintering complexes by maintaining mature mesic conifer components within upland hardwood stands or by maintaining or enhancing sheltered travel corridors between areas of conifer cover and browse.
- Provide spring break out areas by maintaining open hardwood stands on southern exposures and herbaceous openings adjacent to deer wintering complexes.
- When possible, timber harvests within deer wintering complexes should be carried out only during winter months and tops should be left. Chipping of non-bole wood and whole-tree harvesting in the deer wintering complexes should be avoided, but will be discussed on a case-by-case basis through the compartment review process.
- Harvests of cedar and hemlock may only be conducted when:
 - There is reasonable confidence of successful recruitment/regeneration of the cover types; or
 - There is a forest health issue (e.g., hemlock wooly adelgid); or
 - Part of an approved research project; or
 - Removal of selected trees will facilitate a reduction of harvest trails, landings, etc. to minimize soil sedimentation and possible soil compaction issues.

- Provide fall foods in the form of hard and soft mast, and provide dense escape cover or bedding areas in the form of early successional forests, brush and warm-season grasses that will encourage fall deer use in areas open to public hunting. Where habitat types are appropriate, increase diversity of hard mast by planting oak.

4.28.3 – Rare Species and Special Conservation Area Management

All forest operations must be reviewed for potential conflicts with rare species following the guidance in “DNR’s Approach to the Protection of Rare Species on State Forest Lands” (IC4172). This is especially important when listed species are present or past surveys have indicated a possibility of their presence.

Past surveys have noted and confirmed no listed species or natural communities of note occurring in the management area. Any established management guidelines will be followed when such species or natural communities are found. Further surveys for special species and natural communities will be carried out as a matter of course during the inventory process and opportunistically for special more focused surveys.

Special conservation areas include cold water lakes and streams, high priority trout streams (Figure 4.28.1), and a deer wintering complex that covers the majority of the management area. Concentrated recreation area special conservation areas (state forest campgrounds) are listed in the Recreation section 4.28.6 below.

No high conservation value areas or ecological reference areas have been identified in this management area.

The management goal during this planning period is:

- Document occurrences of rare, threatened, endangered and special concern species and natural communities for the management area through the inventory process or with occasional focused surveys.

4.28.4 – Forest Health Management

Although forest health issues span the entire landscape, some specific threats are more important in this management area due to the species composition, site quality or other factors. Some of the more important forest health pests in this management area by major cover type include:

- Aspen and lowland aspen/balsam poplar: white trunk rot and *Hypoxylon* canker
- Northern hardwood: beech bark disease
- Red pine: red-headed pine sawfly, pine engraver and *Scleroderris* canker
- Lowland conifers: spruce budworm, eastern larch beetle and larch casebearer

For further information on forest health refer to Section 3.

Invasive Species

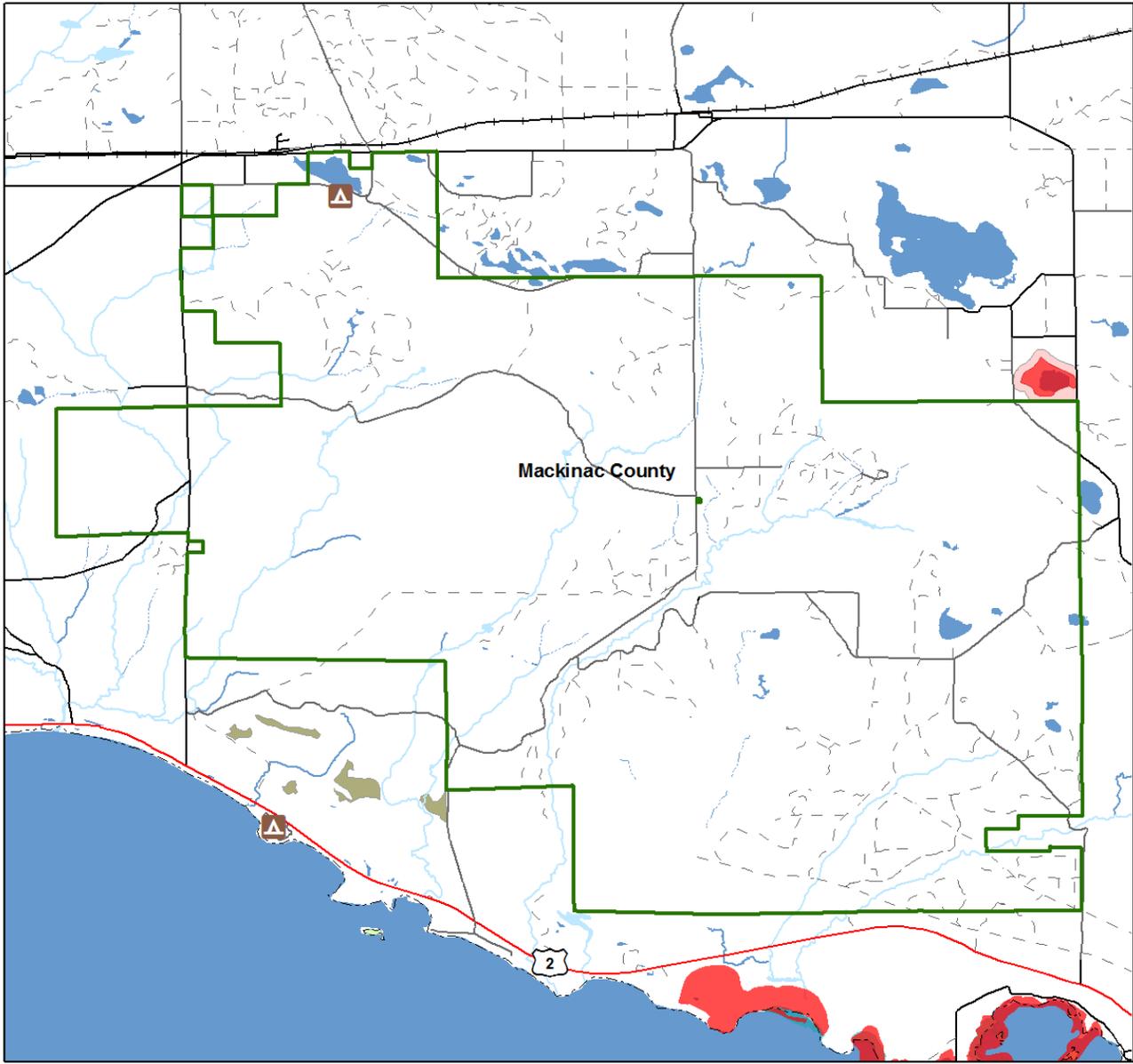
Invasive exotic species, specifically plants, may pose a significant forest health threat to forested and non-forested areas throughout the management area. The statewide database of invasive plant species does not yet document any known species or locations within or surrounding the management area. Absence of data is likely due to lack of surveys and it should not be assumed there are no species present. Monitoring efforts should specifically look for new populations of the 10 priority invasive plant species identified in Section 3 of this plan. Prescribe eradication treatments to any new populations of priority invasive plant species found in the management area.

4.28.5 – Fire Management

Northern hardwoods which have historically been a major component of this management area are rarely impacted by natural fire regimes. However, disturbance through fire has played an important role in the initial propagation and maintenance of pine types and aspen types. The following fire management concepts should be applied in the management area:

- Re-introduce fire in the pine areas and red pine plantations to encourage natural red pine and to discourage competition, particularly from red maple.
- Incorporate fire as a tool to restore or maintain managed openings.

Strickler Aspen



Legend

- Highway
- Paved Roads
- Gravel Roads
- - - Poor Dirt Roads
- Railroads
- · - · - Intermittent Stream or Drain
- Perennial River
- Lakes and Rivers
- ▭ Management Area Boundary
- ▭ Cities
- - - County Boundaries

- ▭ Ecological Reference Areas
- High Conservation Value Areas**
- ▭ Coastal Environmental Areas
- ▭ Critical Dunes
- ▭ Natural Rivers Vegetative Buffer
- ▭ Natural Rivers Zoning District
- ▭ Critical Coastal Habitat (Piping Plover)
- ▭ Kirtland Warbler Habitat
- ▭ Dedicated Management Areas
- ▭ Natural Areas Legally Dedicated

- Special Conservation Areas**
- ▭ Campgrounds
- ▭ Fishing Access Sites
- ▭ Boat Access Sites
- ▭ Mineral Resource Locations
- ▭ Wild & Scenic Rivers (USFS Lands)
- ▭ Visual Management Areas
- ▭ Contiguous Resource Areas
- ▭ Possible Type 1 and Type 2 Old Growth
- ▭ Potential Old Growth
- ▭ Non-Dedicated Natural Areas & National Natural Landmarks
- ▭ Springs, Wetlands, or Riparian Areas

1 in = 1 miles

North Arrow

- ▭ Cold Water Streams & Lakes
- ▭ Wildlife Management Areas
- ▭ Research, Development, and Military Lands
- ▭ Great Lakes Islands

Figure 4.28.8. A map of the Strickler Aspen management area showing the special resource areas.

4.28.6 – Public Access and Recreation

State forest trails bisect this management area (Figure 4.28.1), with county road systems at the east and west.

Gates were installed on several forest trails to provide walk-in hunting opportunities. A management objective for this management area is to perpetuate walk-in hunting opportunities in the Strickler Grouse Management Area by maintaining gate closures.

Recreational facilities are limited to snowmobile trails (Figure 4.28.1) and the Garnet Lake state forest campground, managed by Hudson Township, in the northwest corner of the management area (Figure 4.28.8).

Deer and grouse hunting are a well-established activity. This is a premier morel mushroom hunting area.

4.28.7 - Aquatic Resource Management

Fisheries Division management unit biologists will review proposed forest management activities using the compartment review process and will consider the potential impact of proposed prescriptions upon riparian and aquatic values. Management prescriptions will be modified to account for riparian and aquatic values by applying the standards and guidance documents listed in the introduction to this plan section to the unique conditions specific to any given forest stand.

Prescription of riparian management zone widths greater than the minimum widths provided in IC4011 (*Sustainable Soil and Water Quality Practices on Forest Land*) must be justified and documented during the compartment review process.

Forested stands adjacent to designated high priority trout streams will specifically be managed to discourage beaver use in accordance with both DNR Policy and Procedure 39.21-20 Beaver Management and IC 4011. The East Branch of the Black River and Davenport Creek has been designated high priority trout streams and are shown in the Integrated Forest Monitoring Assessment and Prescription Geographic Decision Support Environment and in Figure 4.28.1.

4.28.8 – Minerals

Surface sediments consist of lacustrine (lake) sand and gravel, and minor peat and muck and coarse-textured till. There is insufficient data to determine the glacial drift thickness. Sand and gravel pits are not located in this area but there may be some potential for additional pits.

The Silurian Engadine Group subcrops below the glacial drift. The Engadine is quarried for stone in the Upper Peninsula.

Exploration and development for oil and gas has been limited to a few wells drilled in the Upper Peninsula (four in Mackinac County). No economic oil and gas production has been found in the Upper Peninsula.

Metallic mineral production is not supported by the geology given the depth to known metallic bearing formations.