



# Compartment Review Presentation

Grayling Forest Management Unit

Compartment 72283

Entry Year 2026

Acreage: 970

County: Crawford

Management Area: High Sand Plains

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**Stand Examiner:** Joan Charlebois

**Legal Description:**

T26N R1W Sections 2 & 3

T27N R1W Section 35

**Identified Planning Goals:**

To maintain forest health, productivity, sustainability, species diversification, and structural diversity throughout the compartment while providing for multiple use and visual management. Conner's Marsh Flooding Master Plan concepts will be incorporated, where appropriate, along with the compartment-wide goals of enhancing wildlife habitat and providing for hunting and wildlife viewing opportunities.

**Soil and topography:**

The compartment is characterized by flat to gently-rolling terrain on primarily Croswell and Grayling sands, with steep side-slopes dropping down to the AuSable River valley. The compartment's interior has large contiguous blocks of swamp on mostly Tawas-Leafriver mucks.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:**

The compartment consists of fairly solid State ownership that borders several private parcels. A small stand lies south of the AuSable River and is isolated from the rest of the compartment. Section 3 contains some lands acquired with Pittman-Robertson funds. Section 2 contains the South Branch Township transfer station; ownership of that one-acre parcel was conveyed to the township in 2002.

**Unique Natural Features:**

There is the potential for rare plants and animals to be associated with the compartment's swamps, riparian corridors and upland pine barrens types.

**Archeological, Historical, and Cultural Features:**

No Archeological, Historical, or Cultural Features known.

**Special Management Designations or Considerations:**

The northwest quarter of Section 3 lies within the Conner's Marsh Flooding State Wildlife Management Area (SWMA) which is also designated as a Special Conservation Area (SCA). The primary goal of the SWMA is the restoration and management of wild birds and mammals and provision for the public use of those wildlife resources. The AuSable River corridor is a High Conservation Value Area (HCVA).

**Watershed and Fisheries Considerations:**

The Conner's Marsh Flooding - maintained by a water control structure built in 1955 - is drained by the Conners Marsh Creek. The creek empties into the AuSable, a designated Natural River and high priority cold water trout stream. The compartment fronts a short segment of the AuSable River.

**Wildlife Habitat Considerations:**

Conner's Marsh Flooding Master Plan concepts include: considering longer rotations for coniferous forest types that border the impoundment, snag retention or creation, clear-cutting aspen, oak and jack pine to maintain a mix of forest types, applying prescribed fire to simulate historic occurrences, and maintaining the current level of public access while discouraging new trail roads (see Master Plan in blue folder). Waterfowl, Eagles, Osprey and various fur-bearing mammals use the marsh and associated beaver ponds. Snowshoe hare specifications should be maximized in aspen stands that are scheduled for harvest. Winter deer cuts, initiated through Forest Treatment Proposals, can be made in and along the swamp conifer types that constitute major deer yards.

**Mineral Resource and Development Concerns and/or Restrictions**

No known potential exists for commercial metallic mineral production in this part of the state. No known active sand/gravel operations exist in the area. Much of the compartment consists of low wetlands, which would inhibit surface mining. There may be some potential for sand and gravel development within the compartment in the south half of Sec 2; there is some evidence that past sand & gravel extraction has already occurred here. The compartment is just south of the Conners

Marsh deep gas field. It is unlikely that the field will expand into the compartment. No recent well permits have been issued in the area, no current leasing activity involving State-owned minerals exists within the compartment (except for the sliver in Sec 33), and potential for hydrocarbons beneath the compartment is considered low at this time. The State does not own all the mineral rights within the compartment. Because the mineral estate is the dominant estate, the surface owner must provide the owner of the mineral rights reasonable access to the surface for mineral exploration and development.

**Vehicle Access:**

County roads include Conner's Flat Road and McMasters Bridge Road. Conner's Marsh Trail, Ermine Trail, and Nuremberg Road have road name signage, but they are not certified county roads. Conner's Marsh Trail is a state forest trail road. Ermine Trail and Nuremberg Road fall partially on private lands and partially on state. Trail roads on State land south of Conner's Flat Road provide the only access for many seasonal cottages and residences along the AuSable River.

**Survey Needs:**

Additional work is needed to determine if corners located in the NWSWSW of section 3 accurately delineate the state land as described in the deed. The current compartment boundary for that area was delineated based on the parcel's deed description.

**Recreational Facilities and Opportunities:**

The Rainbow Bend State Forest Campground and associated canoe-in access site borders the AuSable River. Over two and a half miles of the Midland to Mackinac Hiking Pathway runs through the compartment. Dispersed recreation in the form of hunting, trapping, fishing, canoeing and wildlife viewing is common throughout the compartment but is concentrated around the Conner's Marsh Flooding and the AuSable River.

**Fire Protection:**

The compartment's jack pine stands are small- to moderate-sized, with good access. The adjacent compartment to the north does contain a Kirtland's Warbler management area. Access is limited in the compartment's interior, but the predominant cover type there is swamp. Access to stands west of the Conners Marsh Creek will be restricted by the creek and a swamp, but the isolated stands do not pose particular fire hazards.

**Additional Compartment Information:**

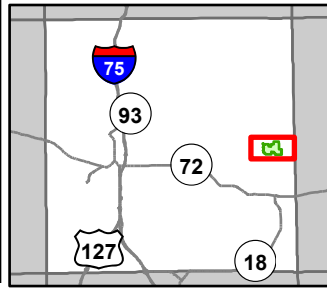
**The following reports from the Inventory are attached:**

- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

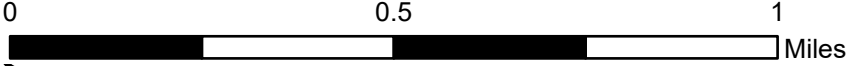
**The following information is displayed, where pertinent, on the attached compartment maps:**

- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

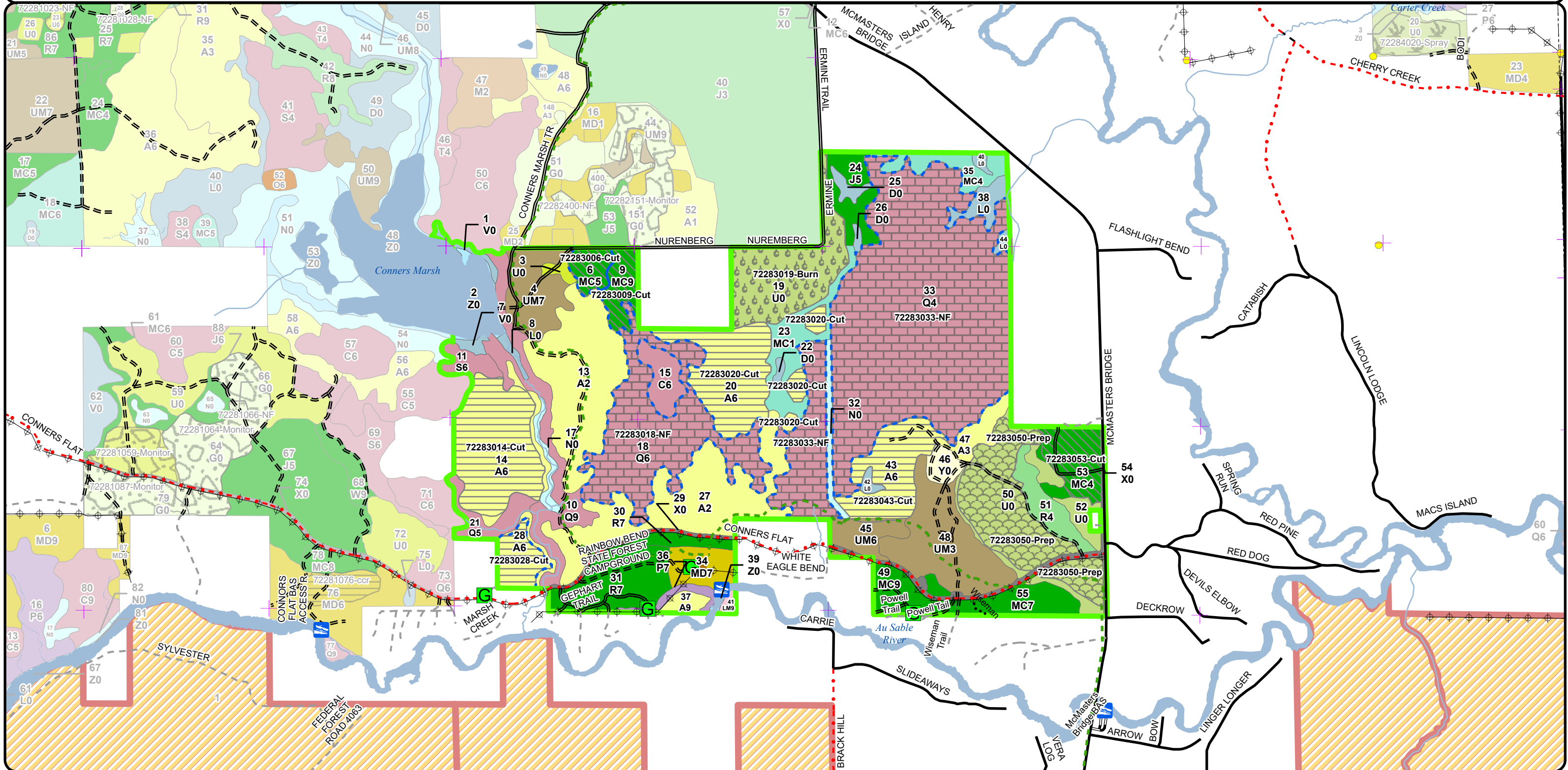
**Cover Type & Treatments Map**



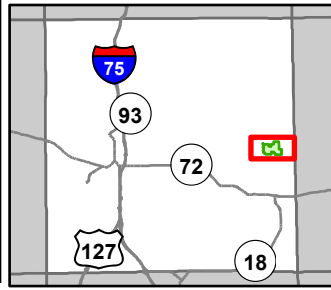
Compartment: 72283  
 T26N, R01W, Sec. 2, 3  
 T27N, R01W, Sec. 35  
 County: Crawford  
 Unit: Grayling  
 Mgmt Area: High Sand Plains  
 YOE: 2026  
 Acres: 969.6 GIS Calculated  
 Examiner: Joan Charlebois  
 Map Revised: 10/15/2024  
 Map Phase: Post Review



- |                              |                                       |                                 |                                 |                            |
|------------------------------|---------------------------------------|---------------------------------|---------------------------------|----------------------------|
| Gate                         | DNR - Forest Access Route             | Perennial River                 | Site Prep                       | 613 - Lowland Mixed Forest |
| Boating Access Site          | Federal / State / County - Paved Road | Powerline                       | 413 - Aspen Types               | 122 - Roads/Parking Lot    |
| Campground                   | Federal / State - Dirt / Gravel Road  | Lakes and Rivers                | 419 - Mixed Upland Deciduous    | 320 - Upland Shrub         |
| Survey Grade Corners         | County - Gravel Road                  | Compartment Boundary            | 421 - Planted Pines             | 330 - Low Density Trees    |
| Remonumented Section Corners | Private - Dirt / Gravel Road          | Treatments with Site Conditions | 422 - Natural Pines             | 500 - Water                |
| Designated Hiking Pathways   | DNR - Management Access               | Other Harvest - See Comments    | 429 - Mixed Upland Conifers     | 622 - Lowland Shrub        |
| DNR - Primary Forest Road    | Intermittent Stream                   | Clearcut (w/Reserves)           | 430 - Upland Mixed Forest       | 623 - Emergent Wetland     |
| DNR - Secondary Forest Road  | Island in Lake or River               | Prescribed Burn                 | 611 - Lowland Deciduous Forest  | 710 - Sand/Soil            |
|                              | Lake/Pond                             | Habitat Structures              | 612 - Lowland Coniferous Forest |                            |



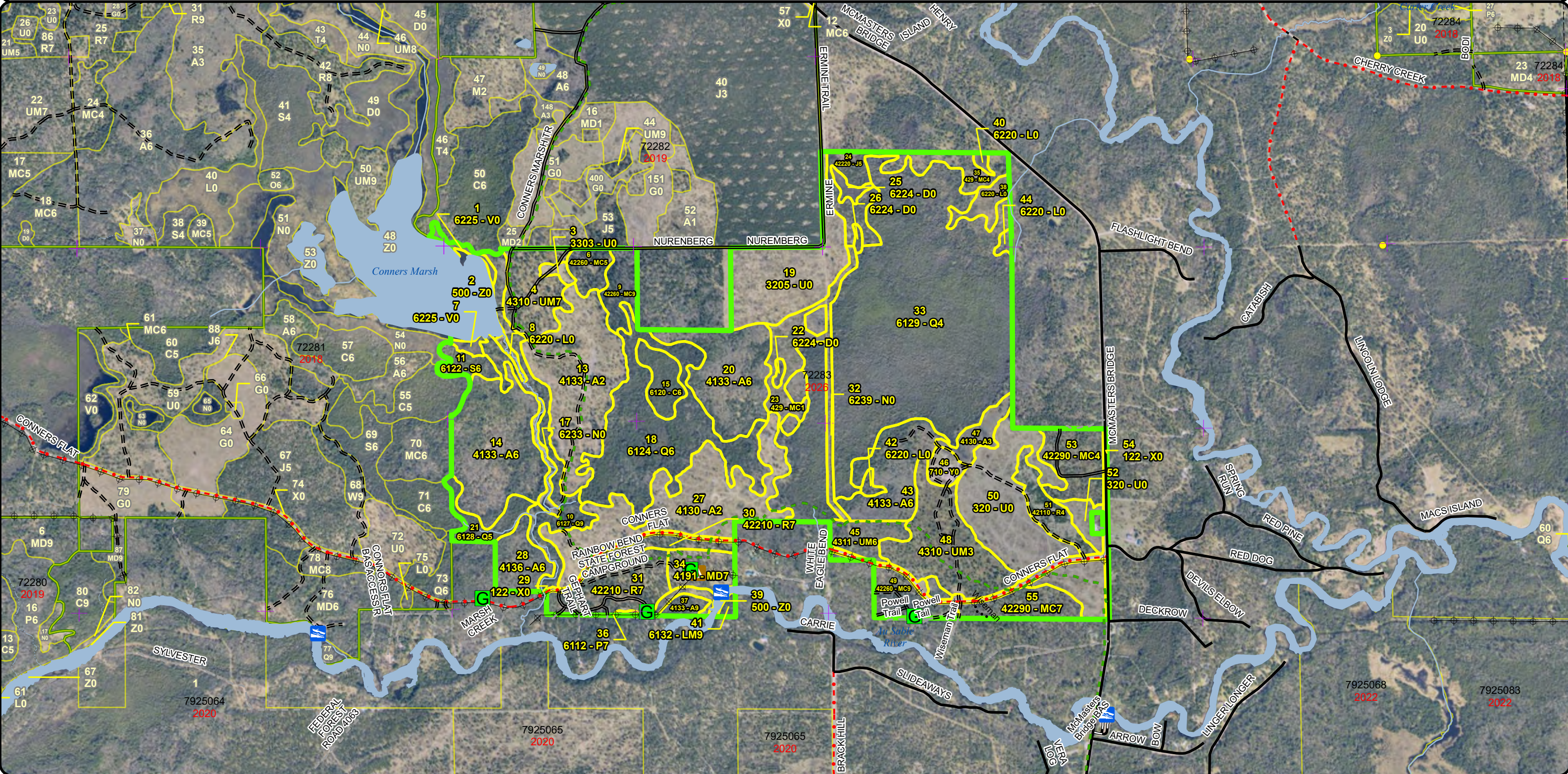
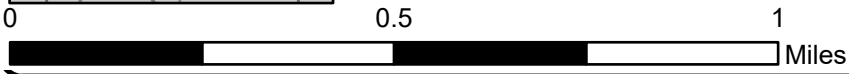
# Stand Boundary Map



Compartment: 72283  
 T26N, R01W, Sec. 2, 3  
 T27N, R01W, Sec. 35  
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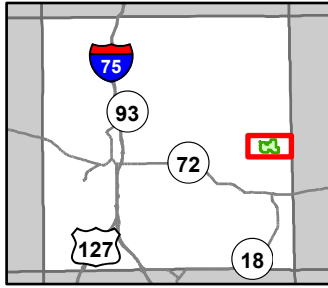
- Gate
- Boating Access Site
- Campground
- Survey Grade Corners
- Remonumented Section Corners
- Designated Hiking Pathways
- DNR - Primary Forest Road
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State / County - Paved Road
- Federal / State - Dirt / Gravel Road
- County - Gravel Road
- Private - Dirt / Gravel Road
- DNR - Management Access
- Intermittent Stream
- Island in Lake or River
- Lake/Pond
- Perennial River
- Powerline
- Lakes and Rivers
- Compartment Boundary
- Stand Boundaries
- 413 - Aspen Types

- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 429 - Mixed Upland Conifers
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 122 - Roads/Parking Lot
- 320 - Upland Shrub
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 710 - Sand/Soil



**Special Conservation Areas  
& Site Conditions Map**

Compartment: 72283  
 T26N, R01W, Sec. 2, 3  
 T27N, R01W, Sec. 35  
 County: Crawford  
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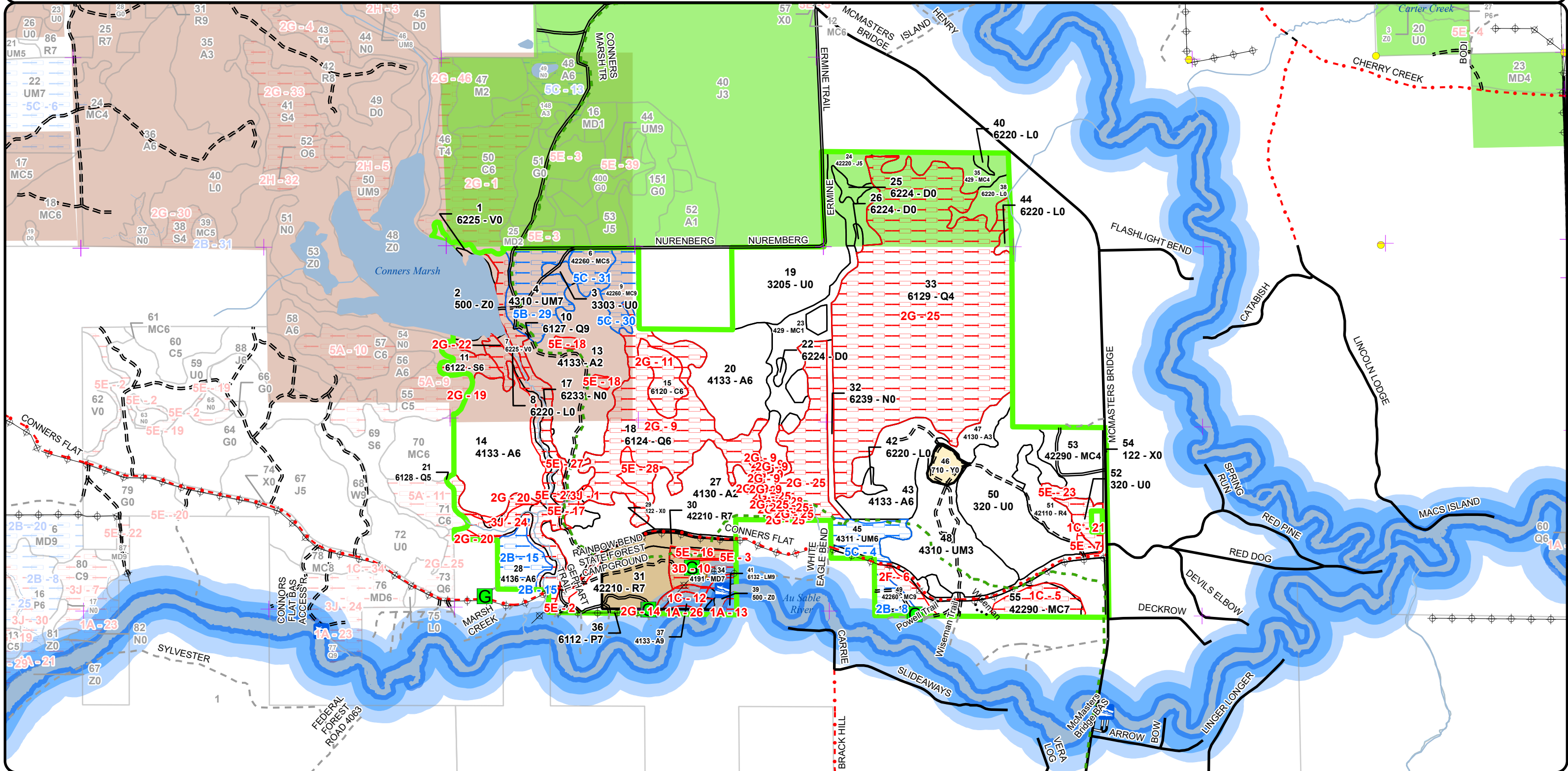


- Gate
- Boating Access Site
- Campground
- Survey Grade Corners
- Remonumented Section Corners
- Designated Hiking Pathways
- DNR - Primary Forest Road
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State / County - Paved Road

- Federal / State - Dirt / Gravel Road
- County - Gravel Road
- Private - Dirt / Gravel Road
- DNR - Management Access
- Intermittent Stream
- Island in Lake or River
- Lake/Pond
- Perennial River
- Powerline
- Lakes and Rivers
- Cold Water Streams

- Compartment Boundary
- SCA
- Available w/ Constraints
- Unavailable
- 5B: Maintain for regeneration purposes
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 1A: Federal/State/Local Law
- 1C: Other dept or div proc/practices
- 2F: Too steep
- 2G: Too wet (sensitive soils, does not include access issues)
- 3D: Recreational / Scenic values

- 3J: Water quality / BMPs (stream, river, or lake)
- 5E: Long-Term Retention
- Stand Boundaries
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Kirtland Warbler Habitat
- High Priority Trout Stream Buffer
- Research, Development, and Military Lands
- Wildlife Research Areas
- State Forest Campground
- Sand or Gravel Pit





Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	108	8	0	0	26	103	0	0	0	0	0	0	0	0	0	0	0	245
Bog	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Cedar	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10
Jack Pine	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Low-Density Trees	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Lowland Aspen/Balsam Poplar	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	4
Lowland Conifers	0	0	0	0	0	0	0	0	0	9	64	27	0	213	0	0	0	0	313
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Lowland Shrub	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	6
Marsh	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	11
Natural Mixed Pines	0	0	0	0	0	0	0	51	10	0	0	0	0	0	0	0	0	0	61
Red Pine	0	0	0	11	0	0	0	32	0	0	0	0	0	0	0	0	0	0	42
Sand, Soil	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Treed Bog	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Upland Conifers	0	0	17	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	28
Upland Mixed Forest	0	0	37	0	0	0	11	0	0	0	21	0	0	0	0	0	0	0	69
Upland Shrub	98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	98
Urban	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Water	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
<b>Total</b>	<b>166</b>	<b>108</b>	<b>62</b>	<b>11</b>	<b>13</b>	<b>26</b>	<b>118</b>	<b>94</b>	<b>10</b>	<b>0</b>	<b>9</b>	<b>102</b>	<b>27</b>	<b>10</b>	<b>214</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>969</b>



## Report 2 – Treatment Summary

Grayling Mgt. Unit

Year of Entry: 2026

Acres of Harvest

Compartment 283

Total Compartment Acres: 970

Commercial Harvest - 126  
 Harvests with Site Condition - 28  
 Next Step Harvest - 0  
 Habitat Cut - 0

### Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen	121	0	0	0	0	0	0	0	0	121
Natural Mixed Pines	0	0	0	0	0	0	0	0	34	34
<b>Total</b>	<b>121</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>34</b>	<b>155</b>

### Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	155	46	0	0	38	0	0	0	278	516
Next Step	0	0	46	0	0	92	296	46	0	480
<b>Total</b>	<b>155</b>	<b>46</b>	<b>46</b>	<b>0</b>	<b>38</b>	<b>92</b>	<b>296</b>	<b>46</b>	<b>278</b>	<b>995</b>



Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
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**Proposed Treatments:**

<b>70</b>	<b>72281070-Cut</b>	18.5	429 - Mixed Upland Conifers	Poletimber Well	55	51-80	Harvest	Clearcut with Retention	4136 - Aspen, Mixed Conifer	Even-Aged	No
<p><u>Prescription</u> Final harvest. Protect the RP-WP legacy trees and island retention. Apply drumming log spec. Set up concurrent with comp 283 stand 14</p> <p><u>Specs:</u> and develop access from the west across lowland spruce stand 69.</p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Moderate stocking in aspen, mixed conifers, and upland shrub inclusions.</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>											
<b>6</b>	<b>72283006-Cut</b>	7.3	42260 - Natural Pine, Mixed Deciduous	Poletimber Medium	63	1-50	Harvest	Other - Specify	330 - Low-Density Trees		No
<p><u>Prescription</u> Salvage the JP &amp; aspen.</p> <p><u>Specs:</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Low-density tree residual RP-WP-NPO tree cover with sparse regen and upland shrub cover.</p> <p><u>Regen:</u></p> <p><u>Other</u> Conners Marsh Flooding SWMA</p> <p><u>Comment:</u></p> <p><u>Site Condition:</u> Age-Class or Site Quality</p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>											
<b>9</b>	<b>72283009-Cut</b>	10.4	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	75	141-170	Harvest	Other - Specify	42290 - Natural Mixed Pine	Two-Aged	No
<p><u>Prescription</u> Harvest the aspen &amp; RM. Exclude the lowest ground in the S1/2. Reducing the treatment area by more than 25% is acceptable in order to</p> <p><u>Specs:</u> exclude that ground.</p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Re-start the aspen component within this natural mixed pine stand. Poorer stocking is expected where the RP-WP residual is concentrated.</p> <p><u>Regen:</u></p> <p><u>Other</u> Conners Marsh Flooding SWMA</p> <p><u>Comment:</u></p> <p><u>Site Condition:</u> Age-Class or Site Quality</p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>											





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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
<b>14 72283014-Cut</b>	43.3	4133 - Aspen, Mixed Pine	Poletimber Well	55	111-140	Harvest	Clearcut with Retention	4136 - Aspen, Mixed Conifer	Even-Aged	No
<p><u>Prescription</u> Final harvest. Protect the RP-WP legacy trees and boundary-exclude the low ground on the S-center edge and the RMZs. Apply drumming</p> <p><u>Specs:</u> log spec. Set up concurrent with comp 281 stand 70 and develop access from the west across lowland spruce stand 69.</p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Moderate stocking in aspen, mixed conifers, and upland shrub cover.</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>										
<b>18 72283018-NF</b>	64.4	6124 - Lowland Spruce-Fir	Poletimber Well	107	111-140	NonForestMgt	Brushpile/Woody Debris Creation	612 - Lowland Coniferous Forest	Two-Aged	No
<p><u>Prescription</u> WLD would like to create horizontal cover for snowshoe hares within these stands by hinge cutting and dropping conifer species, primarily</p> <p><u>Specs:</u> black spruce and balsam fir. WLD will focus primarily along the edges and around canopy gaps within these stands.</p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable</u></p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition:</u> Too Wet</p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>										
<b>19 72283019-Burn</b>	38.0	3205 - Mixed Upland Shrub	Nonstocked		Unspecified	Burn	Opening	310 - Herbaceous Openland		No
<p><u>Prescription</u> Manage for a mix of pine barrens and dry sand prairie. Periodic opening maintenance may include disking, fertilizing, planting, no-till prairie</p> <p><u>Specs:</u> grass drill seeding, mowing, brushing, burning and herbicide application, if consistent with the barrens/prairie ecosystem management objective.</p> <p><u>Next Step</u> Monitoring, Prescribed Burn</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Grass, shrubs and patchy, low-density tree cover consistent with pine barrens &amp; dry sand prairie natural communities.</p> <p><u>Regen:</u></p> <p><u>Other</u> Note the buried gas pipeline that crosses through. Protect survey corner &amp; witness trees.</p> <p><u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>										



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
<b>20 72283020-Cut</b>	40.1	4133 - Aspen, Mixed Pine	Poletimber Well	50	81-110	Harvest	Clearcut with Retention	4136 - Aspen, Mixed Conifer	Even-Aged	No
<p><u>Prescription</u> Final harvest with standard retention. Protect RP-WP legacy trees. Exclude in a retention island the wetland in the NW peninsula. Cut into the operable transition ground edge of stand 18. Apply drumming log spec.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Moderate stocking in aspen with a conifer component and upland shrub cover.</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>										
<b>28 72283028-Cut</b>	10.6	4136 - Aspen, Mixed Conifer	Poletimber Well	58	81-110	Harvest	Clearcut with Retention	4136 - Aspen, Mixed Conifer	Even-Aged	No
<p><u>Prescription</u> Final harvest. Protect the RP-WP legacy trees and boundary-exclude the RMZs. Apply drumming log spec. Set up only if access can be obtained across private property to the south.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Moderate stocking in aspen, mixed conifers, and upland shrub inclusions.</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition:</u> Unknown Access</p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>										
<b>33 72283033-NF</b>	213.2	6129 - Mixed Coniferous Lowland Forest	Poletimber Poor	132	51-80	NonForestMgt	Brushpile/Woody Debris Creation	612 - Lowland Coniferous Forest	Two-Aged	No
<p><u>Prescription</u> WLD would like to create horizontal cover for snowshoe hares within these stands by hinge cutting and dropping conifer species, primarily black spruce and balsam fir. WLD will focus primarily along the edges and around canopy gaps within these stands.</p> <p><u>Specs:</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable</u></p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition:</u> Too Wet</p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>										
<b>43 72283043-Cut</b>	26.9	4133 - Aspen, Mixed Pine	Poletimber Well	49	111-140	Harvest	Clearcut with Retention	4136 - Aspen, Mixed Conifer	Even-Aged	No
<p><u>Prescription</u> Final harvest with standard retention. Cut into the operable transition ground edge of stand 33. Extend the boundary into the north edge of stand 45 to pick up the mature aspen that wasn't cut there in 1997. Apply drumming log spec.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Moderate stocking in aspen, mixed conifers, and upland shrub cover.</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>										



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
53 72283053-Cut	15.9	42290 - Natural Mixed Pine	Poletimber Poor	61	1-50	Harvest	Other - Specify	3303 - Mixed Low Density Trees		No
<p><u>Prescription</u> Harvest the JP &amp; fir 4"+ DBH. Exclude the SW peninsula as area-based retention between stand 52 &amp; stand 50. Add shrub protection spec  <u>Specs:</u> (see stand notes). The draft treatment boundary has been edited to approximate the proposed exclusion.</p> <p><u>Next Step</u>  <u>Treatments:</u></p> <p><u>Acceptable</u> Pine barrens  <u>Regen:</u></p> <p><u>Other</u>  <u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>										

**Approved Treatments:**

50 72283050-Prep	45.8	320 - Upland Shrub	Nonstocked	0	Unspecified	SitePrep	Trenching	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Trench the level portion of the stand except for the NE peninsula by the gravel pit.  <u>Specs:</u></p> <p><u>Next Step</u> Pesticide, Aerial - Release; Other, Pre-Commercial Thinning - Hand; Pesticide, Aerial - Site Prep; Planting, Initial Plant; Monitoring,  <u>Treatments:</u> Artificial Regen(1yr); Monitoring, Herbicide Use; Monitoring, Artificial Regen(3yr)</p> <p><u>Acceptable</u> Full stocking in planted RP.  <u>Regen:</u></p> <p><u>Other</u>  <u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/1 /2024</p>										

**Total Treatment Acreage Proposed: 534.4**

## Report 4 – Site Conditions

Grayling Mgt. Unit  
Joan Charlebois: Examiner

Compartment: 283  
Year of Entry: 2026



### Availability for Management

Total Acres	Acres Available	Acres Avail		Acres Not Available		Dominant Site Conditions									
		With Condition				2B	5B	5C	1A	1C	2F	2G	3D	3J	5E
245	223	11		12	Aspen	11			1	2		0		5	2
4	4	0		0	Bog										
10	0	0		10	Cedar						10				
13	13	0		0	Jack Pine										
2	2	0		0	Low-Density Trees										
4	0	0		4	Lowland Aspen/Balsam Poplar				1	0		3			
313	2	0		311	Lowland Conifers						272		27	12	
1	0	0		1	Lowland Mixed Forest				1						
11	11	0		0	Lowland Shrub										
6	0	0		6	Lowland Spruce/Fir						6				
9	5	0		4	Marsh									4	
11	0	0		11	Mixed Upland Deciduous				1		0	7			3
62	24	23		15	Natural Mixed Pines	6		18		10	4				1
43	38	0		5	Red Pine					0		0		1	4
5	5	0		0	Sand, Soil										
4	4	0		0	Treed Bog										
28	28	0		0	Upland Conifers										
69	38	31		0	Upland Mixed Forest		21	10							
97	92	0		5	Upland Shrub					5					0
14	12	1		0	Urban			1		0	0			0	0
17	17	0		0	Water				0					0	
970	520	65		384	Total Forested Acres	16	21	28	5	17	4	291	7	37	23
	54%	7%		40%	Relative Percent										

\*Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	1	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Conners Marsh Flooding, Creek and tributary RMZs and associated low ground. The 100-foot RMZ incorporates upland ground also.							

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2	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	3	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Stand 30's retention: the Conners Marsh Creek RMZ, WP branch flagging study plots, and narrow strip along the county road and driveways.							
3	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	0	2F: Too steep	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Designated retention for stand 30's harvest, excluding the steep hillside down to the AuSable River Valley.							
4	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	11	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Delay treatment until the aspen component reaches its rotation age							
5	<b>Unavailable</b>	<b>1C: Other dept or div proc/practices</b>	11	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> see locked comments							
6	<b>Unavailable</b>	<b>2F: Too steep</b>	4	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Steep hillside down to the AuSable River Valley.							
7	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	1	1C: Other dept or div proc/practices	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Designated retention for stand 50's harvest. See locked comments							

## Report 4 – Site Conditions

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8	<b>Available</b>	<b>2B: Unknown if access through adjacent landowner(s) is possible</b>	6	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> This flat portion of the stand is bounded by a steep hill on state to the NE and private to the W & S. The road between this block and Conners Flat Road appears to swing down onto private before crossing back onto state.							
9	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	56	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Aside from the drier transition ground edge and small PARVCo islands, this stand has saturated soils and active groundwater. Ephemeral drainages converge & flow out the SW & SE corners of the stand.							
10	<b>Unavailable</b>	<b>3D: Recreational / Scenic values</b>	7	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Rainbow Bend State Forest Campground							
11	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	10	5A: Not able to obtain desirable regeneration	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Cedar on saturated ground. Ephemeral drain flows out of the south end. Commercial harvest is not recommended within this stand due to low ground and cover type conversion concerns.							
12	<b>Unavailable</b>	<b>1C: Other dept or div proc/practices</b>	2	2C: Engineered Bridge Needed (Dept. portable bridge not available or inadequate)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> All but an acre of this stand lies within 300' of the river. Aspen management within 300 feet of high priority cold water trout streams is typically discouraged.							

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13	<b>Unavailable</b>	<b>1A: Federal/State/Local Law</b>	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> 150 foot Natural Rivers restricted cutting zone (except a quarter acre in the SE). Access blocked by river and private property.							
14	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	3	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Flooded marsh swale with lowland aspen. Diffuse drainage to the east empties into the AuSable River.							
15	<b>Available</b>	<b>2B: Unknown if access through adjacent landowner(s) is possible</b>	11	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> If permission could be obtained to cross private property, the best access would be from the south. Installing a temporary bridge to cross the Conners Marsh Creek is not recommended due to the steepness of the stream valley.							
16	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	3	2F: Too steep	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Designated retention for stand 30's harvest, excluding the steep hillside down to the AuSable River Valley.							
17	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	1	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Island retention for stand 27's harvest. Part of it is also within the 100-foot RMZ of a stream.							
18	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	2	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Designated retention left for stand 13's harvest #032-19.							

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19	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	0	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Operable transition ground portions of this stand were cut in 1972 (second age); the ground that was too wet was excluded (first age, which triggered the Silv. Criteria flag). Two ephemeral drains cut through the stand and out to the Flooding.							
20	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	5	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Aside from the transition ground edge and a PARVCo island. the ground is very wet. Active ground water, with ephemeral drains trickling into the permanent stream.							
21	<b>Unavailable</b>	<b>1C: Other dept or div proc/practices</b>	5	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
22	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	6	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Operable transition ground portions of this stand were cut in 1972 (second age); the ground that was too wet was excluded (first age, which triggered the Silv. Criteria flag). Two ephemeral drains cut through the stand and out to the Flooding.							
23	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Proposed retention for stand 53.							
24	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	36	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Connors Marsh Flooding, Creek and tributary RMZs and associated low ground. The 100-foot RMZ incorporates upland ground also.							



## Report 4 – Site Conditions

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25	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	211	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Aside from the drier transition ground edge and PARVCo islands, this stand has saturated soils and is seasonally flooded.							
26	<b>Unavailable</b>	<b>1A: Federal/State/Local Law</b>	4	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> 150 foot Natural Rivers restricted cutting zone.							
27	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	1	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Retention left to exclude the Conners Marsh Creek and tributary RMZs.							
28	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	10	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Designated retention for stand 27's harvest, excluding wetlands and areas cut off by ephemeral drainages.							
29	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	21	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Leave the mature oak-pine cover for continued seed source.							
30	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	10	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

# Report 4 – Site Conditions

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31	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Mgt. Unit

Compartment: #Type!

Year of Entry:



### Report 5 – PROPOSED SPECIAL CONSERVATION AREA\* (SCA) DETAILS

\* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
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Comments
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**Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS**

\* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

ERA = Ecological Reference Area  
HCVA = High Conservation Value Area  
SCA = Special Conservation Area

Conservation Area	Type	Description
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.
HCVA	Designated Critical Habitat	Critical habitat areas are established via a consultative and cooperative process between the DNR and the U.S. Fish and Wildlife service for the recovery of threatened and endangered species, as governed by Part 365, Endangered Species Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, and the Federal Endangered Species Act of 1973. This is an active program, with proposed species plans in various stages of review. As of now only two exist, Kirtland Warbler Habitat and Piping Plover Habitat.
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																																	
1	6225 - Bog	Nonstocked	2.4		Unspecified	No	Bog along flooding. Leatherleaf with some labrador tea, bog birch, encroaching tamarack & black spruce.																																																																	
2	500 - Water	Nonstocked	16.1		Unspecified	No	Connors Marsh flooding. Water control structure built in 1955 by Game Division of the Department of Conservation.																																																																	
3	3303 - Mixed Low Density Trees	Nonstocked	2.0		Unspecified	No	Opening with big & little bluestem, patches of BC and scattered NPO, JP & WP.																																																																	
4	4310 - Pine, Oak Mix	Sawtimber Poor	20.8	109	1-50	N/A	Overmature oak stand was seed tree harvested in 2007 (#021-06), cutting merch stems except RP, WP & green-marked oak (cruised residuals: 20 BA oak, 10 BA pine). The residual is the featured canopy: breaking up NPO saw, RP-WP of all size classes, and scattered pole JP, RM, fir, spruce & traces of aspen. BC is present in the canopy, some of it saw-sized but poor form. Regen from the cut is heavy to BC in the east, but there are dense pockets of secure stump-origin NPO regen in the west. WP, RP, JP & black spruce have been slowly seeding in. The regen is below moderate stocking but was accepted last YOE as preferred for wildlife habitat near Connors Marsh. Two-tracks accessing the Connors Marsh flooding cross through the stand, as well as the Midland to Mackinac hiking pathway.																																																																	
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6	42260 - Natural Pine, Mixed Deciduous	Poletimber Medium	7.3	63	1-50	N/A	Was partially harvested in 1974 (#12-74), cutting most of the merch JP, aspen & oak. The resulting stand is a mix residual & regen from the harvest. There was more JP residual than regen but the oldest JP has been dropping out. Stump-origin NPO from the cut is small saw/pole in size. Residual xlog oak and RP-WP are scattered across the stand. The canopy is patchy, averaging in the low end of 50-75% closure, with a non-stocked inclusion in the middle. Open-grown form is common in the pine. The resid oak is 100+ years old but had to be merged into the 50-year old canopy record due to a MiFI limitation.																																																																	
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7	6225 - Bog	Nonstocked	1.8		Unspecified	No	Bog bordering the flooding. Leatherleaf with some bog birch, ilex, spiraea, and colonizing WP.																																																																	
8	6220 - Alder/willow	Nonstocked	1.5		Unspecified	No	Connors Marsh creek floodplain below the water control structure. Tag alder over marsh grass, with scattered WP, RM & black spruce. Small beaver dam within sight of the engineered dam.																																																																	
9	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	10.4	75	141-170	N/A	Was part of the same 1974 harvest (#12-74) as stand 6's, cutting merch JP-A-O and leaving the RP-WP. The resid pine and A-RM-O regen from the cut are unevenly distributed. The aspen is mostly in the N & E. There are some dense pockets of RP saw in the west half with good form, but the rest of the pine is somewhat stocky & limby. Only a subset of the xlog RP are legacy trees; most are just large-diam from being released in 1974. Trace species include PB, BS, & JP. A lowland swale extends N-S through the middle of the stand; there are a few resid RM & NPO saw along it. There's also ground with a seasonal high water table in the SW.																																																																	
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments	
<b>10</b>	6127 - Lowland Pine	Sawtimber Well	27.0	115	111-140	N/A	May 2014 comments: Narrow stand on the Conners Marsh Creek floodplain and transition ground bordering the Flooding. Mucky hillside seeps flow into the creek. The multi-storied canopy has variable distribution in pine, lowland conifers and hardwoods. Upland ridges flanking the creek have dense WP & RP cover. Decadence and cull are common in the overmature components. Locally full understory cover in WP or fir.	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		
Balsam Fir		10	Pole/Sap/Log	6		Red Maple		
Black Spruce		10	Pole/Log/Sap	7	75	Black Spruce		
Northern White Cedar		3	Log/XLog/Pole	15		White Pine		
Red Maple		10	Log/Pole/XLog	11		Tamarack		
White Pine		39	XLog/Log/Pole	18	115	Tag Alder		
Tamarack		3	Pole/Log	9		Balsam Fir		
Quaking Aspen		3	Pole/Log	7				
Jack Pine		5	Log/Pole	13	92			
Northern Pin Oak		1	Log/XLog/Pole	16				
Paper Birch		1	Pole/Log	8				
Red Pine		15	Log/Pole/XLog	16				
<b>11</b>	6122 - Black Spruce	Poletimber Well	6.1	108	51-80	N/A		May 16, 2014 field comments: Black spruce with mixed pine & lowland hardwoods, on saturated to intermediate ground. The core lowest ground has mature black spruce (first age, 98 years), while the intermediate ground has younger spruce (cored 58 years) and most of the pine, fir, aspen, paper birch & RM. Part of that transition ground was cut under FTP # 66-G in 1972 (second age, 42 years). The overmature JP has largely died out. Two ephemeral drains cut through to the flooding.
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		
Northern White Cedar		2	Log	14		Balsam Fir		
White Pine		10	Pole/Log	8		Black Spruce		
Northern Pin Oak		2	Log	15		White Pine		
Black Spruce		60	Pole/Log	7	108	Tag Alder		
Paper Birch		5	Pole	7	52	Red Maple		
Jack Pine		6	Pole/Log	8				
Quaking Aspen		5	Pole	7	52			
Red Maple		3	Pole	7	52			
Red Pine		2	Log/XLog	16				
Balsam Fir		5	Pole	7				
<b>13</b>	4133 - Aspen, Mixed Pine	Sapling Medium	51.7	4	Immature	N/A	A-MC stand was final harvested in 2020 (#032-19), cutting merch WP & other species 2"+ DBH except RP and two interior retention islands. The south ten acres (former stand 16) had mature O-A cover harvested in 2019 (#009-16), cutting 2"+ DBH except RP-WP >18" DBH and retention along the RMZs (merged w/ adjacent uncut stands). Regen from both harvests is dense aspen cover separated by small NF inclusions with BC brush and perimeter low ground with spruce & WP seeding in. Residual WP-RP is unevenly distributed across the stand. With a couple more growing seasons, the aspen regen will likely shift the stand's canopy closure into the 75-100% category. Regen passed across at least 70% of the stand at re-inventory, with the exception of an oak component in former stand 16 (the oak stump sprouts were browse-killed).	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		
Jack Pine		2	Pole	8		Black Spruce		
Red Pine		5	XLog/Log/Pole	20		Black Cherry		
Balsam Fir		1	Pole/Sap/Log	7				
Quaking Aspen		70	Sapling	1	4			
Quaking Aspen		3	Log	10	50			
Northern Pin Oak		1	Pole/Log	9	50			
White Pine		18	Pole/Sapling	6	40			



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments	
<b>14</b>	4133 - Aspen, Mixed Pine	Poletimber Well	47.2	55	111-140	N/A	Saw-sized JP & merch aspen were cut in 1964 (#58-64A). Notes ref a 1969 harvest (#21-69), then deeryard improvement FTPs 65-G & 66-G to cut residual (except RP & WP) in 1972. The initial '64 cut didn't regen much aspen; set the stand's overall age to the '69 harvest. The series of harvests regenerated dense aspen clones, with WP, JP & RP the dominant cover between clones, along stump-origin NPO and upland brush. Fir & spruce are concentrated on the perimeter along with scattered supercanopy RP & WP. Growth & vigor varies between clones. The BTA is doing best. The QA isn't as well developed and has more conks and black canker.	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		
White Pine		13	Pole/Log/XLog	9		Balsam Fir		
Northern Pin Oak		4	Pole	7	55	Low		
Black Spruce		1	Pole	6		Variable		
Balsam Fir		10	Pole/Sap/Log	6		Trace		
Red Pine		5	Log/XLog/Pole	15		Variable		
Quaking Aspen		50	Pole/Log	8	55	Low		
Black Cherry		1	Pole	7		Sapling		
Bigtooth Aspen		6	Pole/Log	9	55	Tall Shrub		
Paper Birch		1	Log/Pole	10		Sapling		
Red Maple		1	Pole	7				
Jack Pine		8	Pole	8				
<b>15</b>	6120 - Lowland Cedar	Poletimber Well	9.6	128	171-200	N/A	May 2014 field inventory: Dense cedar pole cover with tamarack, spruce, RM & paper birch mixed in. The sphagnum-covered ground is saturated, with standing water in the rootmat holes. Balsam fir common in the understory. The stand's slightly drier north end has larger diameter cedar. NWC dieback & mortality increasing on the core saturated ground.	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		
Black Spruce		10	Pole/Sapling	7		Balsam Fir		
Paper Birch		3	Pole	7		High		
Tamarack		10	Pole/Sapling	7		Variable		
Northern White Cedar		75	Pole/Sap/Log	7	128	Low		
Red Maple		2	Pole	8		Variable		
						Sapling		
						Sapling		
						Tall Shrub		
						Tall Shrub		
<b>17</b>	6233 - Wet Meadow	Nonstocked	3.6	0	Unspecified	No	Marsh with patches of tag alder and salix. WP, fir & spruce colonizing the edges. Beaver dam at south end appeared unmaintained.	
<b>18</b>	6124 - Lowland Spruce-Fir	Poletimber Well	64.4	107	111-140	N/A	May 2014 comments: Mixed conifer swamp on saturated to intermediate ground, with upland inclusions. Diffuse groundwater flow to the SW converges into perennial streams. The best tree health & growth is on the transition ground edge and scattered PARVCo islands. The stand's core saturated ground has smaller-diameter, sparser cover, particularly where the black ash died out. NWC on that lowest ground is top-dying. 2024 update: All but one of stand 27's retention islands were merged into this stand; they had been excluded from harvest due to low ground and wetland pools (see Site Condition layer).	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		
Black Spruce		45	Pole/Sap/Log	7	107	Tag Alder		
Northern White Cedar		22	Log/Pole	12	134	Low		
Tamarack		2	Pole	7		5 - 10 feet		
White Pine		2	XLog/Log	24		Tall Shrub		
Red Maple		15	Log/Pole/Sap	10		Sapling		
Red Pine		1	XLog/Log	20		Sapling		
Quaking Aspen		2	Pole	8		Sapling		
Bigtooth Aspen		2	Pole/Log	9		Sapling		
Paper Birch		2	Pole	7		Sapling		
Jack Pine		2	Log	12		Sapling		
Balsam Fir		5	Pole/Sapling	6		Sapling		



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments									
19	3205 - Mixed Upland Shrub	Nonstocked	38.0		Unspecified	Managed Opening	Mature JP stand was final harvested in 2007 (#027-06), cutting all species 2"+ DBH except oak & BT's. The residual consists of scattered NPO saw and a couple super-canopy RP. Was burned in April 2015 (W72-770) and May 2018 in order to maintain pine barrens/dry sand prairie cover. BC brush cover increases to the south. Traces of aspen regen on the west side.									
								Sub-Canopy Species	Density	Avg. Height	Size					
								Black Cherry	Medium	5 - 10 feet	Tall Shrub					
								Jack Pine	Trace	Variable	Pole					
								Quaking Aspen	Trace	< 5 feet	Sapling					
Northern Pin Oak	Trace	>20 feet	Log													
20	4133 - Aspen, Mixed Pine	Poletimber Well	40.1	50	81-110	N/A	Most of the stand was final harvested in 1974 (#20-74), cutting merch JP-A-O & a small amount of marked RP saw. The east multi-polys were cut a year later under FTP 152-G. The stand regenerated to quaking aspen with a mixed pine component. The aspen clones are separated by varying cover in JP-WP along with lesser amounts of RP, spruce, RM & stump-origin oak. Growth & health varies widely between the aspen clones, ave diams range from 5-8", black canker, conks, &/or hypoxylon present in most. Open-grown form common in the pine. OFS point in the NW is a tiny bog. A string of small upland openings occur in the stand's E1/2.									
								Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
								Jack Pine	10	Pole/Log	8		Chokeberry	Trace	< 5 feet	Tall Shrub
								Northern Pin Oak	2	Pole/Sap/Log	7	50	White Pine	Low	Variable	Sapling
								Black Cherry	1	Pole	7		Black Cherry	Medium	5 - 10 feet	Tall Shrub
								Quaking Aspen	64	Pole	7	50				
								Black Spruce	3	Pole	6					
								White Pine	15	Pole/Log/XLog	9					
								Red Pine	3	Log/Pole/XLog	15					
								Red Maple	2	Pole/Sapling	6	50				
21	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Medium	9.0	91	51-80	N/A	May 2014 field comments: Swamp stand contains a tributary to Conners Marsh Creek. Very active groundwater, many seeps converge with the trib. The slightly drier ground has larger diameter NWC, spruce & cull RM. The core saturated ground has more pole-sized spruce & fir. Spruce cored 68-72-104 years old, ave 81 (1st age). 2nd age was on a 15" DBH NWC.									
								Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
								Balsam Fir	10	Pole	6		Black Spruce	Medium	Variable	Sapling
								Balsam Poplar	5	Pole	8		Tag Alder	Low	5 - 10 feet	Tall Shrub
								Quaking Aspen	10	Pole	9		White Pine	Low	Variable	Sapling
								Red Maple	10	Log/Pole	14		Balsam Fir	Medium	Variable	Sapling
								Red Pine	2	XLog/Log	20					
								Black Spruce	35	Pole	7	91				
White Pine	3	XLog/Log	24													
22	6224 - Treed Bog	Nonstocked	1.0		Unspecified	No	Was within an area cut 2"+ DBH in 2007 (#027-06), Leatherleaf groundcover with colonizing JP & perimeter WP-RP.									
23	429 - Mixed Upland Conifers	Sapling Poor	16.9	17	Immature	N/A	Mature JP stand was final harvested in 2007 (#027-06), cutting stems 2"+ DBH except for scattered oak. Regenerated to variable stocking in JP, aspen (by stand 20), and spruce-fir on the low ground edge. BC brush inclusions throughout. Canopy closure drifts off either side of 50%.									
								Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
								Quaking Aspen	30	Sapling	2	17	Black Cherry	Medium	Variable	Tall Shrub
								Balsam Fir	4	Sapling	2					
								Black Spruce	5	Sapling	1					
								Jack Pine	55	Sapling	2	17				
								Red Pine	1	Pole/Sapling	7					
Northern Pin Oak	5	Log/Pole	11													





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																										
24	42220 - Natural Jack Pine	Poletimber Medium	12.6	35	1-50	N/A	Was cut 2"+ DBH in 1989 (#078-88). Regenerated to JP with oak stump sprouts, scattered RP-WP, and spruce-fir on the low ground inclusions. Stocking varies from dense to sparse, averaging in the low end of the 50-75% canopy closure category. Open-grown form common.																																																										
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25	6224 - Treed Bog	Nonstocked	2.4	0	Unspecified	No	Was within an area cut 2"+ DBH in 1989 (#078-88). Leatherleaf groundcover, patches of L3 & marsh, with colonizing JP, tamarack, & black spruce. The tamarack is filling well in the middle of the stand. Treed bog approaching the forested benchmark.																																																										
26	6224 - Treed Bog	Nonstocked	0.9		Unspecified	No	Except for the south end, was within an area cut 2"+ DBH in 1989 (#078-88). Leatherleaf with colonizing JP, black spruce, tamarack & WP. Treed bog approaching the forested benchmark.																																																										
27	4130 - Aspen	Sapling Medium	55.9	5	Immature	N/A	Mature A-O-MC stand was final harvested by Oct 2019 (#009-16), spec'd to cut trees 2"+ DBH except RP-WP >18" DBH and retention excluding RMZs and wetlands. Through sale admin, intact patches of large sapling cover were allowed to be left uncut provided they were not damaged. Boundary-excluded retention along the north edge was merged with the adjacent lowland types (see Site Condition layer). The stand regenerated to dense aspen clones separated by U/LDT inclusions. Aspen regen continues to fill in the sparse areas. The oak stump sprouts have been browse-killed. Traces of spruce have established along the swamp edge. RP is seeding in around the scattered legacy trees. The treatment had an A-O objective, with conifers and mixed deciduous associates acceptable. Aspen is successfully regenerating, and there will be a minor conifer component, but the deer are eliminating the NPO & RM stump sprouts.																																																										
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28	4136 - Aspen, Mixed Conifer	Poletimber Well	12.8	58	81-110	N/A	This stand was cut in the mid-1960's when still in Consumers Power ownership. The cutting was pretty clean in the aspen but left a fair amount of oak, pine & RM. The aspen (mostly QA) is moving into the saw class. The xlog NPO is breaking up. Lesser canopy associates include oversize pulp RM, log-xlog RP, and suppressed to intermediate fir, spruce & WP. The understory is filling in fir & WP. Former food plot trespass area has grown over. Heavy DWD from the oak breaking up. The stand's east edge drops steeply down to the creek.																																																										
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29	122 - Road/Parking Lot	Nonstocked	3.5		Unspecified	No	Cleared county road corridor.																																																										



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
<b>30</b>	42210 - Natural Red Pine	Sawtimber Poor	6.5	65	1-50	N/A	Species-removal harvest was carried out on the hilltop portion of the original stand 30 in 2019 (#009-16), cutting trees 2"+ DBH except RP-WP-WO (cruise residual 44 sq. ft). Primary species removed were A-RM-NPO, leaving variably-distributed RP-WP & the occasional A-RM-F. BAs range from 0-90. A3 established outside of the denser residual; the regen shifts from QA in the west to BTA moving uphill to the east. The A-O regen objective was only partially met: aspen successfully established but there is not a recordable oak component. The excluded steep slope of stand 30 was merged with stand 34 at re-inventory and the far west end was merged with stand 31.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Maple	2	Pole/Sapling	6		White Pine	Trace		Variable	Sapling
White Pine	15	Pole/Log	8		Quaking Aspen	Medium		5 - 10 feet	Sapling
Balsam Fir	1	Pole/Sapling	5		Red Pine	Low		>20 feet	Sapling
Red Pine	80	Log/Pole	13	65	Black Cherry	Trace		5 - 10 feet	Tall Shrub
Quaking Aspen	1	Pole	7		Bigtooth Aspen	High		5 - 10 feet	Sapling
Bigtooth Aspen	1	Pole	8		Balsam Fir	Trace		Variable	Sapling
<b>31</b>	42210 - Natural Red Pine	Sawtimber Poor	25.2	61	1-50	N/A	20 acres of the stand were harvested in 2008 (#018-06), cutting merch JP, aspen & un-marked oak. All RP-WP were left (cruised residual of 30 sq ft) & green-marked oak (<10 sq ft). RP was planted without trenching at lower stocking/random spacing in 2010 (C72-604) to supplement the residual without creating uniform plantation rows. Final regen survey found 250 RP & 1500 O-C tpa. The variably-distributed residual is still the featured canopy, made up of primarily RP-WP with scattered NPO. The majority small saw-large pole RP is relatively young but there is also a minor xlog legacy component. Decline & mortality is continuing in the residual NPO. The understory has patches of planted RP and naturally-established NPO & JP. The stump-origin NPO regen is vigorous & 15-25' tall. The treatment's original visual management objective relative to the campground was achieved. The west 3.5 acres were merged in from stand 30 (see Site Condition layer). That unharvested portion includes part of the Conners Marsh Creek RMZ, WP Branch Flagging study plots, and a narrow strip along the county road.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Pine	70	Log/Pole/XLog	10	61	White Pine	Low		Variable	Sapling
Northern Pin Oak	8	Log/XLog	15	100	Red Pine	Trace		< 5 feet	Seeding
Jack Pine	1	Log	12		Black Cherry	Low		Variable	Tall Shrub
Red Maple	1	Log/Pole	14		Jack Pine	Low		5 - 10 feet	Sapling
White Oak	2	Log/Pole	14		Red Pine	Low		5 - 10 feet	Sapling
Balsam Fir	3	Pole/Sap/Log	6		Northern Pin Oak	Low		10 - 20 feet	Sapling
White Pine	15	Pole/Log	8						
<b>32</b>	6239 - Mixed Emergent Wetland	Nonstocked	5.1		Unspecified	No	May 2014 edge call: Cleared pipeline corridor across low ground. Cover includes marsh grass, patches of cattail, tag alder & salix, with encroaching tamarack & black spruce.		
<b>33</b>	6129 - Mixed Coniferous Lowland Forest	Poletimber Poor	213.2	132	51-80	N/A	April 2014 comments: Low productivity swampland with varying distribution in cedar, black spruce & tamarack. Minor canopy associates include RM, balsam fir, WP, JP, PB, QA, & balsam poplar. Canopy closure drifts off either end of the 25-50% category. The stand's narrow transition ground edge and occasional PARVCo islands support denser and healthier tree cover, but the majority saturated ground has sparse, struggling cover. Top mortality is common across all species there, where the root mat is an open lattice over standing water. Dwarf mistletoe is causing brooming & mortality in pockets of black spruce. Understory cover on the flooded ground is dense lowland shrub (tag alder with thickets of ilex). Where the water level isn't as high, balsam fir & black spruce are filling in the understory. The stand's N1/3 has lower water levels; lowland hardwoods mix in there. 2024 update: One of stand 27's retention islands was merged into the SW; that island was excluded from harvest due to low ground (see Site Condition layer).		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Black Spruce	30	Pole	7	107	Black Spruce	Low		Variable	Sapling
Balsam Fir	3	Pole	5		Michigan Holly	Low		5 - 10 feet	Tall Shrub
Quaking Aspen	2	Pole/Log	9		Red Maple	Low		10 - 20 feet	Sapling
Balsam Poplar	2	Pole/Log	8		Tag Alder	Medium		5 - 10 feet	Tall Shrub
Tamarack	15	Pole/Log	8	109	Balsam Fir	Medium		Variable	Sapling
Northern White Cedar	40	Pole/Log	7	132					
Paper Birch	2	Pole/Log	8						
Jack Pine	2	Log/Pole	12						
Red Maple	2	Log/Pole	12						
White Pine	2	Log/Pole/XLog	15						



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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**34** 4191 - Mixed Upland Deciduous with Conifer Sawtimber Poor 11.4 100 1-50 N/A

Rainbow Bend State Forest Campground, with drive-in and a canoe-in campsites. Cover is predominantly overmature NPO saw with RP, WP & JP. Most of the stand's aspen is on the steep hillside on the north edge (merged in from stand 30). The RM is mostly on the south edge. 2nd age estimate was drawn from stand 30. The overmature NPO, JP & BTA components continue to decline on this dry site.

Canopy Species	% Cover	Size Class	DBH	Age
Jack Pine	5	Log/Pole	12	
Red Maple	4	Log/Pole	12	
White Oak	1	Log	12	
Bigtooth Aspen	5	Log/Pole	10	
Red Pine	20	Log/Pole	13	65
Northern Pin Oak	50	Log/XLog	16	100

Sub-Canopy Species	Density	Avg. Height	Size
Black Cherry	Medium	Variable	Tall Shrub
White Pine	Low	Variable	Sapling

**35** 429 - Mixed Upland Conifers Poletimber Poor 11.2 51 1-50 N/A

The stand includes fingers of dry ground separated by flooded swales. Patches of aspen were felled in 2016 through a non-commercial WLD habitat FTP (W72-793). Aspen regen established within the larger gaps, mainly in the E1/2 of the stand. The residual canopy is patchy and variable. The mature aspen, NPO & JP continue to drop out, being replaced by fir, WP & spruce. Most of the RP is concentrated in a pocket near McMasters Bridge Road in an old borrow pit.

Canopy Species	% Cover	Size Class	DBH	Age
Black Spruce	15	Pole/Sap/Log	7	
Balsam Fir	32	Pole/Sapling	6	51
Paper Birch	1	Pole	7	
White Pine	20	Log/Pole/XLog	12	
Black Cherry	1	Pole	7	
Red Pine	5	Log/XLog/Pole	14	
Jack Pine	5	Log/Pole	11	
Quaking Aspen	10	Pole/Log	9	59
Red Maple	1	Log/Pole	11	
Northern Pin Oak	5	Log/Pole	12	110
Tamarack	5	Log/Pole	10	

Sub-Canopy Species	Density	Avg. Height	Size
Black Spruce	Trace	Variable	Sapling
White Pine	Trace	Variable	Sapling
Quaking Aspen	Medium	10 - 20 feet	Sapling
Black Cherry	Low	Variable	Tall Shrub
Balsam Fir	Low	Variable	Sapling
Tag Alder	Trace	5 - 10 feet	Tall Shrub

**36** 6112 - Lowland Aspen Sawtimber Poor 3.6 59 1-50 N/A

Seasonally flooded marshy swale has patchy cover in lowland aspen with cedar, basswood & WP scattered on the margins. Cleared powerline corridor cuts through it. An ephemeral drainage flows out the east end, into the AuSable. The canopy started opening up when the black ash was lost and continues as the overmature aspen drops out.

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	5	Pole/Sap/Log	7	
Balsam Poplar	15	Pole/Log	9	
Basswood	5	Log/Pole	12	
Northern White Cedar	5	XLog/Log	22	
White Pine	5	Log/Pole/XLog	15	
Quaking Aspen	60	Log/Pole	11	59
Balsam Fir	5	Pole/Sap/Log	6	

Sub-Canopy Species	Density	Avg. Height	Size
Hawthorn (spp.)	Trace	10 - 20 feet	Tall Shrub
Tag Alder	Low	10 - 20 feet	Tall Shrub



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																											
<b>37</b>	4133 - Aspen, Mixed Pine	Sawtimber Well	3.5	54	81-110	N/A	Small upland aspen stand with RM, oak and conifer associates. Balsam fir & WP are recruiting into the canopy as the overmature aspen breaks up. The stand is cut off from the rest of the compartment by a seasonally flooded swale.																																																											
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<b>38</b>	6220 - Alder/willow	Nonstocked	6.1		Unspecified	No	May 2014 edge call: Tag alder over marsh with sparse E/Q (black spruce, tamarack, balsam fir & aspen) on margins and scattered interior. Diffuse drainage to east.																																																											
<b>39</b>	500 - Water	Nonstocked	1.4		Unspecified	No	AuSable River by the Rainbow Bend canoe access site.																																																											
<b>40</b>	6220 - Alder/willow	Nonstocked	1.1		Unspecified	No	Tag alder & salix over marsh, with tamarack & spruce along margins. Drains to southeast.																																																											
<b>41</b>	6132 - Mixed Lowland Forest with Cedar	Sawtimber Well	1.3	130	111-140	N/A	2014 remote call: Small stand cut off from the rest of the compartment by the AuSable River and bounded by private property. This stand was not accessed for inventory. Viewed from across the river, there is cedar on the floodplain and large RP on the steep steep sideslope, with misc deciduous mixed in.																																																											
<b>42</b>	6220 - Alder/willow	Nonstocked	1.5		Unspecified	No	May 2014 comments: Was within an area cut merch by 1975 (#7-74 & #17-74). Current cover is lowland shrub (tag alder, aronia, spiraea, ilex, viburnum) with low-density tree cover (WP, black spruce & quaking aspen residual & regen from the harvest). Standing water in the spring.																																																											
<b>43</b>	4133 - Aspen, Mixed Pine	Poletimber Well	26.3	49	111-140	N/A	Aspen stand was final harvested in 1975 (#7-74 & #17-74), cutting merch stems. The stand regenerated to aspen with a significant conifer component and minor stump-origin RM & NPO. The WP-RP increases moving west. Most of the spruce-fir is on the transition ground by the swamp. Stocking & form are poorer on the east edge. Conks & hypoxylon top mortality present in most clones.																																																											
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<b>44</b>	6220 - Alder/willow	Nonstocked	1.3		Unspecified	No	May 2014 edge call: Tag alder over marsh with sparse perimeter Q/E (tamarack, black spruce, balsam fir, balsam poplar).																																																											



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments				
<b>45</b>	4311 - Pine, Aspen Mix	Poletimber Well	10.6	61	51-80	N/A	<p>Except for a sub-acre patch in the NW, the stand was partially harvested in 1997 (#045-96), cutting merch JP-A north of Conners Flat Rd &amp; only orange-marked trees south of the road. Residual from the harvest was mainly small saw-large pole WP, RM &amp; log-xlog NPO, with small amounts of mature aspen. Most of the uncut aspen is on the N-center edge and S of the county rd. The patches of aspen regen from the cut are still transitioning into the pole class but have reached the canopy. The harvest did not remove much volume west of the pipeline or south of the county road. A lowland swale with ilex &amp; tag alder occurs along the west edge of the stand.</p>				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Bigtooth Aspen		13	Sapling/Pole	4	27	Michigan Holly		Trace	5 - 10 feet	Tall Shrub	
Northern Pin Oak		5	XLog/Log	18	107	Witch Hazel		Trace	5 - 10 feet	Tall Shrub	
Red Maple		15	Pole/Sap/Log	7		Bigtooth Aspen		Low	>20 feet	Sapling	
Balsam Fir		1	Pole	6		White Pine		Medium	Variable	Sapling	
Red Pine		1	XLog/Log/Pole	18		Black Cherry		Trace	Variable	Tall Shrub	
White Pine		40	Log/Pole	11	61						
Quaking Aspen		25	Sapling/Pole	4	27						
<b>46</b>	710 - Sand, Soil	Nonstocked	4.8		Unspecified	No		Former leased clay pit. Some water ponding in lowest points, otherwise dry. There are sub-acre patches of quaking aspen & balsam poplar, and perimeter NPO, BC & WP.			
<b>47</b>	4130 - Aspen	Sapling Well	7.6	17	Immature	N/A	<p>Aspen stand was final harvested in 2007 (#021-06), cutting stems 2" DBH except RP &gt;16" DBH. Regenerated well to quaking aspen, with NPO along the east edge and spruce-RP establishing along the swamp edge. The RM was heavily browsed. A handful of legacy RP are scattered above. Two diffuse ephemeral drainages originate in the bordering swamp, flow southeast into the aspen stand and go underground within it. Traces of tag alder and pole-sized hawthorn are associated with those marshy swales.</p>				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Balsam Poplar		5	Pole/Sapling	7		Black Cherry		Low	Variable	Tall Shrub	
Quaking Aspen		80	Sapling	3	17	Hawthorn (spp.)		Trace	10 - 20 feet	Tall Shrub	
Red Pine		1	XLog/Log	20		Tag Alder		Trace	5 - 10 feet	Tall Shrub	
Northern Pin Oak		5	Sapling	3	17	Gray Dogwood		Trace	5 - 10 feet	Tall Shrub	
Red Pine		4	Sapling	1							
Black Spruce		5	Sapling	1							
<b>48</b>	4310 - Pine, Oak Mix	Sapling Well	37.4	13	1-50	N/A		<p>Oak-pine-aspen stand was seed-tree harvested in 2009 (#021-06), cutting merch stems except RP, WP &amp; green-marked trees (cruised residual 10 BA oak &amp; 10 BA WP-RP). Sparser areas along Conners Flat Road were boundary-line excluded from the harvest. 32 acres were trenched and interplanted to RP as a nurse crop for the oak in 2011 under FTP C72-605. Year 1 regen survey showed ~600 RP/ac and 800 BC-A-O/ac. Regen passed at re-inventory in 2014 to the oak-pine M.O. The sapling regen is the featured canopy, with the residual WP-NPO-RP scattered above. The planted RP alternates with dense patches of vigorous NPO regen. There is more single-stem oak regen than stump-origin. The BTA regen increases to the south. Residual WP increases to the south also.</p>			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species			Density	Avg. Height	Size
Northern Pin Oak		25	Sapling	2	15	Black Cherry			Medium	Variable	Tall Shrub
Red Pine		45	Sapling	1	13	Prairie Willow			Trace	< 5 feet	Tall Shrub
Bigtooth Aspen		10	Sapling	2	15	Hawthorn (spp.)			Trace	10 - 20 feet	Tall Shrub
Red Pine		2	Log/XLog	15							
White Pine		10	Log/Pole	15	56						
Northern Pin Oak		8	Log/XLog	17							



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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<b>49</b>	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	13.4	63	111-140	N/A	<p>The stand starts out on the hilltop bordering Conners Flat Road, drops steeply down into the AuSable River Valley, and then levels out by the private property. Roads used to access residences along the river dissect the stand. The canopy has varying distribution in RP, WP, NPO &amp; aspen. The pine component is small saw-large pole in size, with scattered legacy stems. Cover on the hilltop flats south of the county road is increasingly sparse as the NPO breaks up. The stand's poly north of the county road has some immature aspen but the bulk of the aspen south of the road is mature to overmature, with decadence and cull common. WP is filling in below the aspen.</p>				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
White Pine		20	Log/Pole	10		Black Cherry		Low	Variable	Tall Shrub	
Jack Pine		1	Log/Pole	12		White Pine		High	Variable	Sapling	
Red Pine		40	Log/Pole/XLog	12	63						
White Oak		2	XLog/Log/Pole	18							
Red Maple		2	Pole/Log	8							
Quaking Aspen		5	Log/Pole	10							
Bigtooth Aspen		15	Log/Pole	12							
Northern Pin Oak		15	Log/Pole/XLog	15	123						

<b>50</b>	320 - Upland Shrub	Nonstocked	54.6	0	Unspecified	4211 - Planted Red Pine	<p>Naturally-established JP stand, w/ NPO &amp; aspen on the hillside, was final harvested by Sept 2021 (#030-17), cutting stems 2"+ DBH except WO (a few), green-marked trees (traces of RP), and pathway marker trees. A retention island (now part of stand 51) was excluded along Conners Flat Road, and a sub-acre triangle of RP was not cut at the north end. An unmaintained portion of the Midland to Mackinaw hiking pathway crosses through the south end of the stand. The harvest was spec'd to maximize scarification and seed dispersal for natural JP regen. 2024 regen check found no JP regen from the cut even in the main skid routes or landings. The NPO stump sprouts were heavily browsed, as were the traces of pre-existing fir. Small patches of aspen sprouted on the west edge hillside. JP pathway marker trees are wind-throwing.</p>
Sub-Canopy Species		Density	Avg. Height	Size			
White Pine		Trace	< 5 feet	Sapling			
Cherry (spp.)		Medium	5 - 10 feet	Tall Shrub			
Bigtooth Aspen		Low	5 - 10 feet	Sapling			
Quaking Aspen		Trace	< 5 feet	Sapling			
Jack Pine		Trace	>20 feet	Pole			
Red Pine		Trace	>20 feet	Log			

<b>51</b>	42110 - Planted Red Pine	Poletimber Poor	11.4	28	1-50	N/A	<p>Former gravel pit, along with islands of uncut mature JP split off from stand 50 (see Site Condition layer). Shallower portions of the pit were trenched and planted to RP (80%) &amp; JP (20%) in 1996 (C72-367). Cover ranges from LDT to R6 to J5. The most intact plantation is in the east-center. The JP canopy record had to combine the mature residual (2nd age) and the immature planted JP. Trace species include NPO, quaking aspen and balsam poplar.</p>				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Jack Pine		24	Pole/Sap/Log	7	59	Cherry (spp.)		Low	Variable	Tall Shrub	
Northern Pin Oak		1	Pole/Log	8							
Red Pine		75	Pole/Sapling	5	28						

<b>52</b>	320 - Upland Shrub	Nonstocked	4.9	0	Unspecified	No	<p>Naturally-established JP stand w/ NPO was final harvested by Sept 2021 (#030-17), cutting stems 2"+ DBH except WO &amp; green-marked trees. Most of the residual pole-sapling WO &amp; NPO is along the highway. This isolated portion of stand 50's harvest was prescribed to have an LDT M.O. Cherry brush is the dominant regen. The NPO stump sprouts were heavily browsed. A small wildfire burned into the east-center last year. See Site Condition layer.</p>
Sub-Canopy Species		Density	Avg. Height	Size			
Northern Pin Oak		Trace	< 5 feet	Seeding			
White Oak		Trace	Variable	Pole			
Northern Pin Oak		Trace	Variable	Pole			
Cherry (spp.)		Medium	Variable	Tall Shrub			



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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<b>53</b>	42290 - Natural Mixed Pine	Poletimber Poor	17.8	61	1-50	N/A	JP-NPO stand was harvested in 1996 (#017-96), cutting merch stems except oak and balsam fir. The canopy has patchy, variable distribution in residual JP, immature oak, scattered NPO saw, WP, RP & balsam fir. The overmature oak continues to decline and drop out of the canopy. The fir has also been dying. The center and west sides of the stand have pine barrens characteristics. Cover ranges from LDT to J6, averaging on the high end of 25-50% canopy closure. The patches of oak regen make the canopy appear fuller.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Northern Pin Oak		10	XLog	20	113	Northern Pin Oak		Medium	Variable	Sapling	
Balsam Fir		2	Pole	7		Jack Pine		Low	Variable	Sapling	
Northern Pin Oak		20	Pole	7		Black Cherry		Medium	Variable	Tall Shrub	
White Pine		7	Log/Pole	10		Hawthorn (spp.)		Trace	5 - 10 feet	Tall Shrub	
Red Pine		4	Log/XLog	14		Choke Cherry		Low	< 5 feet	Tall Shrub	
Jack Pine		55	Pole	8	61						
White Oak		2	Pole/Sap/Log	7							

<b>54</b>	122 - Road/Parking Lot	Nonstocked	10.1		Unspecified	No	Cleared county road corridors and some adjacent openings.
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<b>55</b>	42290 - Natural Mixed Pine	Sawtimber Poor	13.5	62	1-50	N/A	Sparse pine-oak stand occupies a dry plateau above the JP plains. The large, poor quality NPO have been dropping out of the canopy. Snags & DWD are common. The rest of the sparse canopy is made up of WP, RP, JP, immature pole NPO, and small patches of aspen. There are dense pockets of secure NPO regen. WP continues to seed in. Small upland openings remain with big bluestem & mast-producing shrub cover.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
White Oak		1	Log	13		Serviceberry (Juneberry)		Trace	10 - 20 feet	Tall Shrub	
Jack Pine		12	Log/Pole	11		Fragrant Sumac		Trace	< 5 feet	Tall Shrub	
Bigtooth Aspen		10	Pole/Log	8		White Pine		Medium	Variable	Sapling	
Red Pine		15	Log/Pole/XLog	12		Hawthorn (spp.)		Low	Variable	Tall Shrub	
White Pine		50	Log/Pole	11	62	Red Pine		Low	Variable	Sapling	
Northern Pin Oak		10	Log/Pole/XLog	15	107	Northern Pin Oak		Medium	5 - 10 feet	Sapling	
Red Maple		1	Pole	7		Black Cherry		Medium	Variable	Tall Shrub	
Quaking Aspen		1	Pole	8							