# Compartment Review Presentation 

Cadillac Forest Management Unit<br>Compartment 63139<br>Entry Year 2017<br>Acreage: 3,019<br>County Wexford<br>Management Area: Upper Muskegon

Revision Date: 2015-06-12
Stand Examiner: Derek Cross

## Legal Description:

T22N, R9W, Sec. 4-9, 17
T23N, R9W Sec.17, 19
T23N, R10W Sec. 13-16

## Identified Planning Goals:

Provide forest products; maintain or enhance wildlife habitat; protect areas of unique threatened, endangered and special concern species; and provide for forest-based recreational uses. Timber management will focus on balancing age class distributions of oak, aspen and red pine.

## Soil and topography:

Montcalm, Rubicon and Kalkaska sands. Undulating upland and well drained with a few low areas.

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

Block in state ownership in areas of the compartment where pieces are missing or private lands are interrupting contiguous state ownership. There are 2 outlying parcels that should be considered for disposal or trade. T22N R9W Sec. 17 NENW is a 40 acre land locked parcel that has been inaccessible for management up to this point. T23N R09W Sec. 17 SENE there is a 5 acre land locked parcel along the Manton Creek. The proximity of this compartment to the City of Cadillac leads to increased hunting and recreational pressures. There is an ORV trail in the compartment that receives a considerable amount of use.

## Unique Natural Features:

Potential for great blue heron rookery, red shouldered hawk, goshawk, and box turtle. Also potential for ebony boghaunter and secretive locust in bogs.

## Archeological, Historical, and Cultural Features:

Missaukee junction railroad intersection. Logging camp and woodland mound listed.

## Special Management Designations or Considerations:

Silvicultural guidelines will be followed for all forestry treatments prescribed in the compartment.

## Watershed and Fisheries Considerations:

The only surface water in the compartment is Bonds Mill Pond and a couple other unnamed ponds. All of these are water table ponds, subject to the vagaries of nature. None of them have fish populations. There is one flowing stream that touches the compartment and has a native trout population.

## Wildlife Habitat Considerations:

This compartment provides valuable deer and turkey habitat. A continuation of maintaining a variety of cover types and various age classes of those types will continue to favor a variety of game and non-game species. Featured species of special interest include deer, woodcock, golden-winged warbler and ruffed grouse. Timber sale specifications to benefit wildlife (where applicable) will include brush pile creation along lowland edges, protection of mast-bearing wildlife shrubs and ironwood, protection of standing dead snags, and creation of drumming logs (1-2 per acre) and woody debris (tops or whole trees) in aspen cuts. (E. Victory 6/2015)

## Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of an end moraine of coarse-textured till, lacustrine sand and gravel and minor glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 600 and 1,000 feet. Beneath the glacial drift are the Pennsylvanian Grand River and Saginaw Formations and the Mississippian Bayport Limestone and Michigan Formation. The Saginaw is quarried for clay for bricks, the Bayport for limestone and the Michigan Formation for gypsum, all in other areas of the State. Gravel pits are located in the area and potential is good. This area is located several miles south of the prolific Silurian Niagaran reef trend. Oil and gas has limited potential in the Compartment and none of the State lands are leased for oil and gas exploration.

## Vehicle Access:

A forest road access plan is detailed on the compartment map. Identified are state and county roads as well as forest roads and trails under the jurisdiction of the DNR. There are numerous roads in excess of the access needs in the area, and are a threat to the resources, or are a concern environmentally. A road closure plan should be implemented to reduce resource damage in the compartment.

## Survey Needs:

None at this time

## Recreational Facilities and Opportunities:

The entire 18 mile Missaukee Junction ORV trail is located within this compartment. This 50 inch trail is designed for ATV's, and receives considerable use due to it's close proximity to Cadillac. Utilizing trail protection specifications \& considerations such as promoting a winter harvest, and flush cutting stumps directly adjacent to the trail are suggested harvesting practices. Specifically, appropriate measures identified in DNR Policy \& Procedures "32.22XX' (Best Management Practices for Forest and Wildlife Management Adjacent to Recreation Trails) should be considered when setting up timber sales within this compartment. Hunting, and some limited fishing opportunities in Manton Creek are available within this compartment. (T.M.N. 12/17/14).

## Fire Protection:

Road access is limited to some of the compartment, which will limit fire response. Dispersed camping and ORV activities can be a cause for wildfires in the compartment.

## Additional Compartment Information:

A small portion of the compartment lies on the east side of U.S. 131 it is recommended to remove this from compartment 139 and merge with compartment 141. The proximity of the compartment to urban centers leads to an increased amount of illegal dumping.

The following reports from the Inventory are attached:<br>Total Acres by Cover Type and Age Class<br>Cover Type by Harvest Method<br>Proposed Treatments - No Limiting Factors<br>Proposed Treatments - With Limiting Factors<br>Stand Details (Forested and Nonforested)<br>Dedicated and Proposed Special Conservation Areas<br>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 \& T23N, R09W, Sec.17, 19 County: Wexfor

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Mgmt Area: Upper Muskegon YOE: 2017
Acres: 3019 GIS Calculated Examiner: Derek Cross
Map Revised: 7/7/2015 Map Revised: 7/7/2015 Map Phase: Pre-Review
Section Corners —Highway 411 - Northern Hardwood
$\overline{\overline{=}}$ County Gravel Road
Snowmobile Trails
—Designated Snowmobile Trail Railroad

- Rivers
Lakes
Lakes
- Powerline
Treatments
$\rightleftharpoons$ Clearcut (w/Reserves)


Cover Type \&
Compartment: 139 T23N, R09W, Sec. 17, 19 County: Wexfor
 Unit: Cadillac
Mgmt Area: Upper Muskegon
YOE: 2017 YOE: 2017
Acres: 3019 GIS Calculated Examiner: Derek Cross
Map Revised: $7 / 7 / 2015$ Map Revised: 7/7/2015
Map Phase: Pre-Review Map Phase: Pre-Review

| monumented Section |  |
| :---: | :---: |
| $\diamond$ Field Grad |  |
| Miris Corners | Treatments |
| Highway | $\square$ Clearcut (w/Reserves) |
| ed Roads | Other Treatment - See Co |
| - Poor Dirt Roads | Z7] Thinning (Crown, Low, Systema |
| - County Poor Dirt Roads | Forest Covertype |
| ORV Trails | 411 - Northern Hardwood |
| ORV Trails | 413 - Aspen |
| ense \& Trail Permit | 421 - Planted Pines |
| Designated ATV | 422 - Natural Pines |
| Railroads | 430 - Upland Mixed Fores |
| Rivers | 1 - Lowland Deciduous F |
|  |  |



Cover Type \&


Mgmt Area: Upper Muskegon YOE: 2017
Acres: 3019 GIS Calculated Examiner: Derek Cross
Map Revised: $7 / 7 / 2015$ Map Revised: 7/7/2015
Map Phase: Pre-Review Map Phase: Pre-Review
Remonumented Section Corners $\phi$ Powerline I-ITreatm
Treatments
ents with Site Conditions $\square$ 310 - Herbaceous Openland 310 - Herbaceous Open $330-$ Low Density Tree
500 - Water $\square 623$ - Emergent Wetland
Clearcut (w/Reserves)
Other Treatment - See Comments
Forest Covertype
413 - Aspen
413 - Aspen
422 - Nanted Pine
612 - Lowland Coniferous Forest
Non-Forest Covertype
110 - Low Intensity Urban





\section*{Stand Boundary <br> | Remonumented Section Corners | Stand Boundaries |
| :---: | :---: |
| $\diamond$ Field Grade GPS Corners | Forest Covertype |
| Miris Corners | 413 - Aspen |
| Miris Corners | 421 - Planted Pines |
| Highway | 422 - Natural Pines |
|  | 612 - Lowland Coniferous Forest |
| County Gravel Roads | Non-Forest Covertype |
| - Poor Dirt Roads | 110 - Low Intensity Urban |
| \% ORV Trails | 122 - Roads/Parking Lot |
| Designated ATV | 310 - Herbaceous Openla |
| - Railroads | 330 - Low Density Trees $500 \text { - Water }$ |
| Rivers | 623 - Emergent Wetland |
| Pipeline |  |



$\begin{array}{cl}\text { Special Conservation Areas Compartment: } 139 \\ \text { \& Site Conditions Map } & \text { T23N }, \text { RO9W }\end{array}$

-Miris Corners
- Paved Roads
$=$ County Gravel Roads
if Snowmobile Trails
Snowmobile Trails
工_Resignated Snowmobile Trails
——Rairoads
Rivers
-
$\phi$ Pipeline
$\phi$ Powerline
P Powerline
$\square$ Stand Boundaries
$\square$ Stand Boun
-Available w/ Constraints

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                                    Remonumented Section Corners _-_Unavailable
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                                    Remonumented Section Corners _-_Unavailable
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Available Factors W/ Constraints 5 C : Delay treatment for age/size class 5C: Delay treatment for age/size c
diversity or exceptional site quality Unavailable Factors

3J: Water quality / BMPs (stream, river, 3J: Water quality
or lake)
5 E: Long-Term Retention Special Conservation Areas Cold Water Streams Cold Water Lakes
High Priority Trout Stream Buffer


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24
$85^{5} 270^{\sim}$
85²6'30"W
$85^{2} 2^{6} 0^{\prime \prime} \mathrm{W}$
2530"W
$\underbrace{}_{5^{\circ} 255^{\circ} 0^{\prime \prime} \mathrm{W}}$
${ }^{85^{\circ} 24^{1330} \mathrm{w}}$


$\begin{array}{cc}\text { Special Conservation Areas } & \text { Compartment: } 139 \\ \text { \& Site Conditions Map } & \text { T23N, R09W, Sec. } 17\end{array}$
T23N, R09W, Sec. 17, 19
Unit: Cadillac


YOE: 2017
Acres: 3019 GIS Calculated
Examiner: Derek Cross
Map Revised: 7/7/2015
Map Phase: Pre-Review

| Remonumented Section C | Stand Boundaries |
| :---: | :---: |
| $\triangle$ Field Grade GPS Corners | Site Condition |
| - Miris Corners | ___Available w/ Constraints |
| Highway | - Unavailable |
| County Paved Roads | Available Factors W/ Constraints |
| Paved Roads | 2B: Unknown if access through adjacent |
| County Gravel Roads | landowner(s) is possible |
| Poor Dirt Roads | 5C: Delay treatment for age/size class diversity or exceptional site quality |
| -\% ORV Trails | Unavailable Factors |
| - Designated ATV | 2G: Too wet (sensitive soils, does |
| Railroads | include access issues) |
|  | 5E: Long-Term Retention |
| Pipeline | Special Conservation Areas |




${ }^{85^{\circ} 266^{\prime 3} 3}{ }^{\prime \prime} \mathrm{W}$

2G: Too wet (sensitive soils, does not
${ }^{\text {include access issues) }}$ Long-Term Retention
Special Conservation Areas

Age Class


Commercial Harvest - 0
Harvests with Site Condition - 49
Next Step Harvest - 0
Habitat Cut - 72

## Cover Type by Harvest Method



Proposed and Next Step Treatments by Harvest Method



## Habitat Cut: No Site Condition:

Prescription Heavily thin hardwoods to a residual BA as low as $30-50$. Focus on leaving the best sugar maple and those with large wolfy crowns in place. This Specs: treatment is meant to promote sugar maple regen while limiting beech regen.

Next Step Planting, Interplant; Monitoring, Natural Regen (Re-Inventory)
Treatments:
Acceptable A mix of northern hardwood species.
Regen:
Other Old next step comments:
Comment:
Proposed Start Date: $\quad$ 10/1/2016


## Habitat Cut: No Site Condition:

Prescription Reduce BA to an average of 50-80. Remove ash and beech were applicable. Create large canopy gaps near good sugar maple seed source Specs: trees.

Next Step
Treatments:
Acceptable All hardwood species will be acceptable. If heavy beech regeneration should occur seek further treatment as needed.
Regen:
Other Old next step comments:
Comment:
Proposed Start Date: $\quad$ 10/1/2016

| 6 | 63139006-Cut | 27.1 | $4133-$ Aspen, <br> Mixed Pine | Sawtimber <br> Well | 67 | $141-$ | Harvest | Clearcut with <br> Retention | $4133-$ Aspen, <br> Mixed Pine | Two-Aged | Proposal |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

## Habitat Cut: No Site Condition: Unknown Access

Prescription Final harvest leaving oaks for mast. There are a lot of red pine poles in the understory and protecting these as much as possible should be a Specs: harvest objective. Include grouse drumming log specs in sale. Buffer wetland on the west side leaving some large CWD along the edge for herp species.
Next Step
Treatments:
Acceptable Aspen and mixed deciduous as well as pine spp.
Regen:
Other Access to the stand will be difficult best access would be from the north. Old next step comments:
Comment:
Proposed Start Date: $\quad 10 / 1 / 2016$


Habitat Cut: Yes Site Condition:
Prescription Maintain as an opening. May include mowing, disking, fertilizing, planting, cutting brush or trees, brush pile creation, planting shrubs or other Specs: mast/cover species.

Next Step
Treatments:
Acceptable
Regen:
Other Old next step comments:
Comment:
Proposed Start Date: $\quad$ 10/1/2016


## Habitat Cut: No Site Condition:

Prescription Thin hardwoods to a residual BA of 50-80 creating large canopy gaps near large crowned high quality trees. Specs:

Next Step
Treatments:
Acceptable A mix of northern hardwoods
Regen:
Other Old next step comments:
Comment:
Proposed Start Date: $\quad 10 / 1 / 2016$

| 16 | 63139016-Cut | 22.3 | 4112 - Maple, Beech, Cherry Association | Sawtimber Well |  | $\begin{aligned} & 111- \\ & 140 \end{aligned}$ | Harvest | Single Tree Selection | 411 - Northern Hardwood | UnevenAged | Proposal |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | itat Cut: No |  | Site Condition |  |  |  |  |  |  |  |  |
| Prescription Remove Dying Ash and Beech mark other species as needed to reach BA targets of 60-80. Specs: |  |  |  |  |  |  |  |  |  |  |  |
| Next Step <br> Treatments: |  |  |  |  |  |  |  |  |  |  |  |
| Acceptable All northern hardwood species are acceptable. Regen: |  |  |  |  |  |  |  |  |  |  |  |
| Other $\quad$ Old next step comments: |  |  |  |  |  |  |  |  |  |  |  |
| Proposed Start Date: $10 / 1 / 2016$ |  |  |  |  |  |  |  |  |  |  |  |
| 19 | 63139019-NF |  | 310 - Herbaceous Openland | Nonstocked |  | Unspec ified | NonForestMgt | Other - Specify | 310 - <br> Herbaceous Openland |  | Proposal |

Habitat Cut: Yes Site Condition:
Prescription Maintain as an opening. May include mowing, disking, fertilizing, planting, cutting brush or trees, brush pile creation, planting shrubs or other Specs: mast/cover species.

Next Step
Treatments:
Acceptable
Regen:
Other Old next step comments:
Comment:
Proposed Start Date: $\quad 1 / 1 / 2016$

| 26 | 63139026-NF | 2.6 | 330 - Low-Density <br> Trees | Nonstocked | 0 | Unspec <br> ified | NonForestMgt | Other-Specify | $310-$ <br> Herbaceous <br> Openland |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Habitat Cut: Yes | Site Condition: |  |  |  |  |  |  |  |  |

Habitat Cut: Yes Site Condition:
Prescription maintain opening
Specs:
Next Step
Treatments:
Acceptable
Regen:
Other Old next step comments:
Comment:
Proposed Start Date: $\quad$ 10/1/2016


## Habitat Cut: No Site Condition:

Prescription Reduce BA to an average of 50-80. Remove ash and beech were applicable. Create large canopy gaps near good sugar maple seed sources. Specs:

Next Step
Treatments:
Acceptable All hardwood species will be acceptable. If heavy beech regeneration should occur consider further treatments at that time.
Regen:
Other Old next step comments:
Comment:
Proposed Start Date: $\quad 10 / 1 / 2016$

| 32 63139032-Cut | 7.4 | 42110 - Planted Red Pine | Sawtimber Well |  | $\begin{aligned} & 171- \\ & 200 \end{aligned}$ | Harvest | Crown Thinning | 4211 - Planted Red Pine | Even-Aged | Proposal |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Habitat Cut: No Site Condition: |  |  |  |  |  |  |  |  |  |  |
| Prescription Reduce BA to a range of 100-120. Focus on crown spacing and removal of poor formed and suppressed trees. |  |  |  |  |  |  |  |  |  |  |
| Next Step Treatments: |  |  |  |  |  |  |  |  |  |  |
| Acceptable Regen: |  |  |  |  |  |  |  |  |  |  |
| Other $\quad$ Old next step comments: |  |  |  |  |  |  |  |  |  |  |
| Proposed Start Date | 10/1 | /2016 |  |  |  |  |  |  |  |  |
| 33 63139033-Cut |  | 42111 - Planted Red Pine, Mixed Deciduous | Sawtimber Well |  | $201+$ | Harvest | Crown Thinning | 4221-Natural Red Pine | Even-Aged | Proposal |
| Habitat Cut: No |  | Site Condition |  |  |  |  |  |  |  |  |
| Prescription Mark red pine to a residual BA of 100-120. Focus on removing poor formed trees and releasing crowns. Cut all aspen also. |  |  |  |  |  |  |  |  |  |  |
| Next Step |  |  |  |  |  |  |  |  |  |  |
| Acceptable |  |  |  |  |  |  |  |  |  |  |
| Other Old next step comments: |  |  |  |  |  |  |  |  |  |  |
| Proposed Start Date | 10/1 | /2016 |  |  |  |  |  |  |  |  |
| 34 63139034-Cut | 6.7 | 42110 - Planted Red Pine | Sawtimber Well | 56 | $\begin{aligned} & 171- \\ & 200 \end{aligned}$ | Harvest | Crown Thinning | 4211 - Planted Red Pine | Even-Aged | Proposal |

## Habitat Cut: No Site Condition:

Prescription Reduce BA to an average of 100-120. Focus on crown spacing and removing poor formed and suppressed trees.
Specs:
Next Step
Treatments:
Acceptable
Regen:
Other Old next step comments:
Comment:
Proposed Start Date: $\quad$ 10/1/2016

| $\begin{aligned} & \mathrm{a} \\ & \mathrm{n} \\ & \mathrm{~d} \end{aligned}$ | Treatment Name | Acres | Stand CoverType | Size Density | Stand Age | BA Range | Treatment Type | Treatment Method | Cover Type Objective | Age Structure | Approval Status |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 39 | 63139039-Cut | 8.0 | 42110 - Planted Red Pine | Poletimber Well | 58 | 201+ | Harvest | Systematic Thinning | 4211 - Planted Red Pine | Even-Aged | Proposal |
| Habitat Cut: No |  |  | Site Condition: |  |  |  |  |  |  |  |  |

Prescription Remove $1 / 3$ of the volume.
Specs:
Next Step
Treatments:
Acceptable
Regen:
Other Slopes may make harvest challenging. Old next step comments:
Comment:
Proposed Start Date: $\quad 10 / 1 / 2016$

| 42 | 63139042- <br> Burn | 3.7 | 330 - Low-Density |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Trees |  |  |  |$\quad$ Nonstocked $\quad$| Unspec |
| :---: |
| ified |$\quad$ Burn $\quad$ Opening $\quad$| $310-$ |
| :---: |
| Herbaceous |
| Openland |

Habitat Cut: Yes Site Condition:
Prescription Burn site to set back encroachment. Consider converting to warm season grasses.
Specs:
-or-
Maintain as opening through other means.
Next Step
Treatments:
Acceptable
Regen:
Other Old next step comments:
Comment:
Proposed Start Date: $\quad 10 / 1 / 2016$

| 43 | 63139043-Cut | 20.7 | $4199-$ Other Mixed |  |
| :--- | :--- | ---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Upland Deciduous | Sawtimber | 79 | $111-$ | Well |

Habitat Cut: No Site Condition:
Prescription Cut all aspen and red maple while marking oak and pine for harvest. Leave a retention pockets or mark some aspen and maple to leave.
Specs:
Next Step
Treatments:
Acceptable Aspen, red maple, cherry, oak and pines.
Regen:
Other Include the grouse drumming log spec in the timber sale write up. Old next step comments:
Comment:
Proposed Start Date: $\quad$ 10/1/2016

| 50 | 63139050-Cut | 12.8 | 4130 -Aspen | Poletimber <br> Well | 57 | Unspec <br> ified | Harvest | Clearcut with <br> Retention | 413 -Aspen | Even-Aged Proposal |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Habitat Cut: No Site Condition:
Prescription Final harvest leaving a retention pocket and scattered oak trees. Include a grouse drumming log spec in the sale write up.
Specs:
Next Step
Treatments:
Acceptable Aspen and northern hardwood species.
Regen:
Other Old next step comments:
Comment:
Proposed Start Date: $\quad$ 10/1/2016


Prescription Final harvest red pine and replant Specs:

Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr) Treatments:

Acceptable Planted red pine
Regen:
Other Reroute recreational trail to the stand edge upon harvest. remove all stumps along new trail edge. Old next step comments:
Comment:
Proposed Start Date: $\quad 10 / 1 / 2016$


## Habitat Cut: No <br> Site Condition: Unknown Access

Prescription Final harvest aspen and white pine. Leave 10 BA of mature white pines as well as several scattered over mature aspens as retention. Leave any Specs: oak that are in the stand also. Create a buffer around the vernal pond. Leave some large CWD on pond edge for herp habitat. Include the grouse drumming log spec in the sale proposal

Next Step
Treatments:
Acceptable Aspen and white pine, as well as any other deciduous species.
Regen:
Other The railroad borders this stand on the west side. Crossing the tracks would be the best option for harvest. Is this a possibility? Old next step Comment: comments:

Proposed Start Date: $\quad 10 / 1 / 2016$

| 79 | 63139079-Cut | 10.2 | $42110-$ Planted <br> Red Pine | Sawtimber <br> Well | 58 | $201+$ | Harvest | Systematic | 4211 - Planted <br> Red Pine | Even-Aged |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Prescription Third row thin.
Specs:
Next Step
Treatments:
Acceptable
Regen:
Other Consider increasing harvest to include trees from the remaining rows also. Access is going to be difficult and re-entry may not be granted. Old
Comment: next step comments:

Proposed Start Date: $\quad$ 10/1/2016

| $\begin{aligned} & \mathrm{a} \\ & \mathrm{n} \\ & \mathrm{~d} \end{aligned}$ | Treatment Name | Acres | Stand CoverType | Size Density | Stand Age | BA Range | Treatment Type | Treatment Method | Cover Type Objective | Age Structure | Approval Status |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 84 | 63139084-Cut | 20.2 | 42110 - Planted Red Pine | Sawtimber Well | 54 | $\begin{aligned} & 141- \\ & 170 \end{aligned}$ | Harvest | Clearcut | 42110 - Planted Red Pine | Even-Aged | Proposal |
| Hab | itat Cut: No |  | Site Condition: |  |  |  |  |  |  |  |  |
| Prescription Final harvest and replant red pine |  |  |  |  |  |  |  |  |  |  |  |

Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Pesticide, Other-Specify; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr) Treatments:

Acceptable planted red pine
Regen:
Other Protect recreational trail during harvest and planting operations. Old next step comments:
Comment:

| 86 63139086-Cut | 10.6 | 42110 - Planted Red Pine | Sawtimber Well | 58 | $\begin{aligned} & 111- \\ & 140 \end{aligned}$ | Harvest | Clearcut | 4211 - Planted Red Pine | Even-Aged | Proposal |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Habitat Cut: No |  | Site Condition: |  |  |  |  |  |  |  |  |

Prescription Final harvest red pine and replant
Specs:
Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr) Treatments:

Acceptable Planted red pine
Regen:
Other Reroute recreational trail to the stand edge removing all stumps along new trail. Old next step comments:
Comment:
Proposed Start Date: $\quad$ 10/1/2016

| 87 | 63139087-Cut | 7.3 | $42110-$ Planted <br> Red Pine | Sawtimber <br> Well | 58 | $141-$ | Harvest | Clearcut | $4211-$ Planted <br> Red Pine | Even-Aged Proposal |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

## Habitat Cut: No Site Condition:

Prescription Final harvest and replant red pine
Specs:
Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr) Treatments:

Acceptable Planted red pine
Regen:
Other Reroute recreational trail to the stand edge remove all stumps along new trail. Old next step comments:
Comment:
Proposed Start Date: $\quad 10 / 1 / 2016$

| 91 63139091-Cut | 5.9 | 42201 - Natural White Pine, Mixed | Poletimber Well | 53 | $\begin{aligned} & 141- \\ & 170 \end{aligned}$ | Harvest | Clearcut | 4211 - Planted Red Pine | Even-Aged | Proposal |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Habitat Cut: No Site Condition:
Prescription Final harvest and replant to red pine.
Specs:
Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr) Treatments:

Acceptable Planted red pine
Regen:
Other Old next step comments:
Comment:
Proposed Start Date: $\quad$ 10/1/2016

| $\begin{aligned} & \mathrm{n} \\ & \mathrm{~d} \end{aligned}$ | Treatment Name | Acres | Stand CoverType | Size Density | Stand Age | BA <br> Range | Treatment Type | Treatment Method | Cover Type Objective | Age Structure | Approval Status |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 95 | 63139095-Cut | 35.4 | 42110 - Planted Red Pine | Poletimber Well | 54 | 201+ | Harvest | Systematic <br> Thinning | 4211 - Planted Red Pine | Even-Aged | Proposal |
| Hab | at Cut: No |  | Site Condition |  |  |  |  |  |  |  |  |

Prescription Third row thin, rows may be hard to follow at times but they are present. Specs:

Next Step
Treatments:
Acceptable
Regen:
Other Old next step comments:
Comment:


## Habitat Cut: No Site Condition:

Prescription Final harvest leaving pocket retention. Leave some scattered mature oaks for mast. Include grouse drumming log specs in sale write up. Specs:

Next Step
Treatments:
Acceptable Aspen, white pine and northern hardwood species.
Regen:
Other Old next step comments:
Comment:
Proposed Start Date: $\quad 10 / 1 / 2016$

| 101 | 63139101-Cut | 54.3 $42110-$ Planted <br> Red PineSawtimber <br> Well | 58 | $201+$ | Harvest | Crown Thinning | 4211 - Planted <br> Red Pine | Even-Aged Proposal |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

## Habitat Cut: No Site Condition:

Prescription Thin to a residual BA of 100-120.Focus on releasing crowns while removing suppressed and poor form trees.
Specs:
Next Step
Treatments:
Acceptable
Regen:
Other Old next step comments:
Comment:
Proposed Start Date: $\quad 10 / 1 / 2016$


Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr) Treatments:

Acceptable planted red pine
Regen:
Other Reroute recreational trail to the stand edge and remove all stumps along new trail. Old next step comments:
Comment:
Proposed Start Date: $\quad 10 / 1 / 2016$


## Habitat Cut: No <br> Site Condition:

Prescription Final harvest and replant red pine
Specs:
Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr) Treatments:

Acceptable planted red pine
Regen:
Other Old next step comments:
Comment:
Proposed Start Date: $\quad$ 10/1/2016

| a <br> $\mathbf{n}$ <br> $\mathbf{d}$ | Treatment <br> Name | Acres | Stand <br> CoverType | Size <br> Density | Stand <br> Age | BA <br> Range | Treatment <br> Type | Treatment <br> Method | Cover Type <br> Objective |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{1 1 9}$ | 63139119-NF | 9.3 | $330-$Low-Density | Age <br> Structure | Approval <br> Status |  |  |  |  |


| Habitat Cut: |
| :--- |
| Prescription |
| $\underline{\text { Specs: }}$ |
| $\frac{\text { Next Step }}{\text { Treatments: }}$ |

Acceptable
Regen:
Other Old next step comments:
Comment:
Proposed Start Date: $\quad 10 / 1 / 2016$

| 120 | 63139120-Cut | 26.7 | $42110-$ Planted <br> Red Pine | Sawtimber <br> Well | 59 | $141-$ | Harvest | Clearcut | $4211-$ Planted <br> Red Pine |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Habitat Cut: No |  | Site Condition: |  |  |  |  |  |  | Pren-Aged |

Prescription Final harvest red pine and replant
Specs:

## Site Condition:

Prescription treat as necessary
Specs:
Next Step
Treatments:

Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr) Treatments:

Acceptable planted red pine
Regen:
Other Old next step comments:
Comment:
Proposed Start Date: $\quad 10 / 1 / 2016$

| 138 | 63139138-NF |  | 330 - Low-Density Trees | Nonstocked |  | Unspec ified | NonForestMgt | Other - Specify | 310 - <br> Herbaceous Openland |  | Proposal |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Habitat Cut: Yes |  |  | Site Condition: |  |  |  |  |  |  |  |  |
| Prescription Get rid of scotch pine by any means necessary. |  |  |  |  |  |  |  |  |  |  |  |
| Specs: |  |  |  |  |  |  |  |  |  |  |  |
| Next Step |  |  |  |  |  |  |  |  |  |  |  |
| Treatments: |  |  |  |  |  |  |  |  |  |  |  |
| Acceptable |  |  |  |  |  |  |  |  |  |  |  |
| Regen: |  |  |  |  |  |  |  |  |  |  |  |
| Other Old next step comments: |  |  |  |  |  |  |  |  |  |  |  |
| Comment: |  |  |  |  |  |  |  |  |  |  |  |
| Proposed Start Date: |  | 10/1/2016 |  |  |  |  |  |  |  |  |  |
|  | 63139145-Cut |  | 42110 - Planted Red Pine | Sawtimber Well |  | $\begin{aligned} & \hline 111- \\ & 140 \end{aligned}$ | Harvest | Clearcut | 4211 - Planted Red Pine | Even-Aged | Proposal |
| Habitat Cut: No |  |  | Site Condition: |  |  |  |  |  |  |  |  |
| Prescription Final harvest red pine and replant |  |  |  |  |  |  |  |  |  |  |  |
| Specs: |  |  |  |  |  |  |  |  |  |  |  |
| $\frac{\text { Next Step }}{\text { Treatments: }}$ SitePrep, Roll |  |  | Chopping; SitePrep, Trenching; |  | Planting, Initial Plant; Monit |  |  | ring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr) |  |  |  |
| Acceptable planted red pine Regen: |  |  |  |  |  |  |  |  |  |  |  |
| Other Remment: $\quad$ Reroute recreati |  |  | onal trail to follow | and edges rem | ovin | all stum | ps along new tr | il. Old next step | omments: |  |  |
| Proposed Start Date: |  | 10/1/2016 |  |  |  |  |  |  |  |  |  |



Prescription Thin pine focus on removing poor formed and low quality suppressed trees. Target BA of 100-120. Specs:

Next Step
Treatments:
Acceptable
Regen:
Other Old next step comments:
Comment:
Proposed Start Date: $\quad 10 / 1 / 2016$
$\left.\begin{array}{lccccccc}\hline 163 & \begin{array}{c}\text { 63139163- } \\ \text { Burn }\end{array} & 2.0 & \begin{array}{c}330 \text { - Low-Density } \\ \text { Trees }\end{array} & \text { Nonstocked } & \begin{array}{c}\text { Unspec } \\ \text { ified }\end{array} & \text { Burn } & \text { Opening }\end{array} \begin{array}{c}310- \\ \text { Herbaceous } \\ \text { Openland }\end{array}\right]$ Proposal

## Habitat Cut: Yes Site Condition:

Prescription Prescribed burn in opening to set back encroachment. Plant to warm season grasses.
Specs:
Next Step
Treatments:
Acceptable
Regen:
Other Old next step comments:
Comment:
Proposed Start Date: $\quad$ 10/1/2016


Proposed Start Date: $\quad 10 / 1 / 2016$

| 2 G |  |  |  |  |  |  |  | 3 L |  | 3 L |  | 5 C |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aspen |  |  | 0 |  | 190 | 15 |  |  |  |  |  |  |  |
| Cedar |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Herbaceous Openland |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Low-Density Trees |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lowland Aspen/Balsam Poplar | 10 |  |  |  |  |  |  |  |  |  |  |  |  |
| Lowland Conifers |  | 5 | 6 |  |  |  |  |  |  |  |  |  |  |
| Lowland Shrub |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Marsh |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mixed Upland Deciduous |  |  |  |  | 21 | 1 |  |  |  |  |  |  |  |
| Northern Hardwood |  |  |  | 26 |  |  |  |  |  |  |  |  |  |
| Oak |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Planted Mixed Pines |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Red Pine |  |  |  |  | 6 |  |  |  |  |  |  |  |  |
| Tamarack | 6 |  |  |  |  |  |  |  |  |  |  |  |  |
| Upland Mixed Forest |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Urban |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Water |  |  |  |  |  |  |  |  |  |  |  |  |  |
| White Pine |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Forested Acres | 16 | 5 | 7 | 26 | 217 | 17 |  |  |  |  |  |  |  |
| 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 <br> No. Cond Availability | Dominant Site Condition | Acres | Other Site Condition | Other Site Condition | Other Site Condition | Other Site Condition |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Available | 5C: Delay treatment for <br> age/size class diversity or <br> exceptional site quality | 22 | Unspecified | Unspecified | Unspecified |  |
|  |  |  |  |  |  |  |  |

## Comments:

This stand has young A3 to the north of it and the stand to the south is being treated this entry period. ORV trail is also in the stand.

Report 5 - Site Conditions
Cadillac Mgt. Unit
Derek Cross : Examiner

| 2 | Available | 2B: Unknown if access through adjacent landowner(s) is possible | 12 | 2E: Road needed | Unspecified | Unspecified | Unspecified |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| This stand could be accessed through Manton Mountain Estates road system. There are also some old two tracks across state land that could possibly be used but require a lot of work. |  |  |  |  |  |  |  |
| 3 | Available | 2B: Unknown if access through adjacent landowner(s) is possible | 27 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: |  |  |  |  |  |  |  |
| 4 | Available | 2B: Unknown if access through adjacent landowner(s) is possible | 10 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: |  |  |  |  |  |  |  |
| 5 | Unavailable | 5E: Long-Term Retention | 6 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: |  |  |  |  |  |  |  |
| 6 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 52 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: |  |  |  |  |  |  |  |
| 7 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 21 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: |  |  |  |  |  |  |  |

Report 5 - Site Conditions
Cadillac Mgt. Unit
Derek Cross : Examiner

| 8 | Unavailable | 5E: Long-Term Retention | 1 | Unspecified | Unspecified | Unspecified | Unspecified |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Comments: |  |  |  |  |  |  |  |
| 9 | Unavailable | 5E: Long-Term Retention | 5 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: |  |  |  |  |  |  |  |
| 10 | Unavailable | 3J: Water quality / BMPs (stream, river, or lake) | 6 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: |  |  |  |  |  |  |  |
| 11 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 6 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: |  |  |  |  |  |  |  |
| 12 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 41 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: |  |  |  |  |  |  |  |
| 13 | Unavailable | 2G: Too wet (sensitive soils, does not include access issues) | 10 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: |  |  |  |  |  |  |  |
| 14 | Unavailable | 5E: Long-Term Retention | 2 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: |  |  |  |  |  |  |  |


| 15 | Unavailable | 2G: Too wet (sensitive soils, does not include access issues) | 6 | Unspecified | Unspecified | Unspecified | Unspecified |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

## Comments:

This stand is very wet harvest operations would be extremely difficult.

| 16 | Unavailable | 3A: Potential old growth / biodiversity | 5 | Unspecified | Unspecified | Unspecified | Unspecified |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Comments: |  |  |  |  |  |  |  |
| 17 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 51 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: <br> This stand is surrounded by A3 recommend holding until next rotation. |  |  |  |  |  |  |  |
| 18 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 6 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: <br> Hold for ten years and harvest with stand 53. |  |  |  |  |  |  |  |
| 19 | Unavailable | 3L: Other wildlife concerns | 26 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: <br> Possibly active Red-Shouldered Hawk nest. WLD is monitoring. |  |  |  |  |  |  |  |
| 20 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 20 | Unspecified | Unspecified | Unspecified | Unspecified |

## Comments:

Cadillac Mgt. Unit
Derek Cross : Examiner

Compartment: 139
Year of Entry: 2017

| 21 | Unavailable | 5E: Long-Term Retention | 3 | Unspecified | Unspecified | Unspecified | Unspecified |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Comments: |  |  |  |  |  |  |  |
| 22 | Unavailable | 3J: Water quality / BMPs <br> (stream, river, or lake) | 0 | Unspecified | Unspecified | Unspecified | Unspecified |

Comments:

## Report 6 - 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


## Comments

## Report 7 - 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.
Conservation

Area $\quad$ Type $\quad$\begin{tabular}{l}
Description <br>
\hline SCA <br>
Cold Water <br>
Stream

 

A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or <br>
stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from <br>
year to year. Coldwater streams in Michigan typically provide these conditions due to substantial <br>
contributions of groundwater to their stream flows. Such streams are established by Director's action and <br>
designated as trout resources by Fisheries Order 210.
\end{tabular}

|  | Cadillac | Mgt. Unit |  | Report 8 - Forested Stands |  |  | Compartment: 139 <br> Year of Entry: 2017 <br> General Comments: |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & a \\ & \mathrm{n} \\ & \mathrm{~d} \end{aligned}$ | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range |  |  |  |
| 1 | 4110 - Sugar Maple Association | Sawtimber Well | 207.7 | 79 | 81-110 | This st | at this time no treatments | needed. |
| 2 | 4130 - Aspen | Sapling Well | 32.7 | 7 | Immature |  | concentrated in a pocket. |  |
| 3 | 4110 - Sugar Maple Association | Sawtimber Well | 59.2 | 83 | 81-110 | The as EAB. 90 show wo with BBD There pockets large g asp | stand has been heavily s in this stand are dying ge. The beech in this stand be mostly alive at this p egeneration present in co established away from es. There are several sm the edges and in small g | acted by tarting to infected in time. ntrated beech in ones of also. |
| 4 | 4119 - Mixed Northern Hardwoods | Sawtimber Well | 31.0 | 80 | 111-140 | Heavy are rand throug EAB pr not las pocket lo | omponent along the north marked with blue paint d end of the stand. There es are ok at this time but The pine is concentrate ter of the stand. This stand areas are quite steep. | e. There cattered $B D$ and ash may a small very hilly |
| 5 | 42110 - Planted Red Pine | Poletimber Well | 27.2 | 58 | 141-170 | Good look | and, no treatments neede | this time. |
| 6 | 4133 - Aspen, Mixed Pine | Sawtimber Well | 27.1 | 67 | 141-170 | This is | spen stand with a good a poles underneath. | unt of red |
| 7 | 4130 - Aspen | Sapling Well | 7.0 | 20 | Immature | Conside was part | and with compartment 14 d portion of the pine was ut in. It came back to asp | his stand when the |
| 9 | 6129 - Mixed Coniferous Lowland Forest | Sawtimber Well | 6.2 | 112 | 201+ | Nice through | dar stand with Manton creak structure in the creek with over the water course. | lowing s of CWD |
| 10 | 4130 - Aspen | Poletimber Well | 5.1 | 15 | Immature |  | n stand looks good at this |  |
| 11 | 4110 - Sugar Maple Association | Poletimber Well | 87.0 | 74 | 81-110 | This | pole stand that should de ality logs in the future. | p some |
| 12 | 4110 - Sugar Maple Association | Sawtimber Well | 112.3 | 84 | 111-140 | Little to quantity to prom are som | esent there are no small ds to have some canopy and increase vertical stru s in this stand that may operations. | s in any created e. There harvest |
| 13 | 4139 - Aspen, Mixed Deciduous | Sapling Well | 8.3 | 4 | Immature | This sta sc | harvested leaving green ut the cut area. the white e south end of the harve | ged trees in rea. |
| 14 | 4130 - Aspen | Sapling Well | 23.7 | 28 | Immature |  | en stand looks good at this | me. |


| S | Cadillac | Mgt. Unit |  | Report 8 - Forested Stands |  |  | Compartment: 139 <br> Year of Entry: 2017 <br> General Comments: |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| n | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range |  |  |  |
| 15 | 42200 - Natural White Pine | Sawtimber Medium | 44.4 | 62 | 51-80 | There | hite pine seedlings betwe and 1 foot tall. | 6 inches |
| 16 | 4112 - Maple, Beech, Cherry Association | Sawtimber Well | 22.3 | 79 | 111-140 | Low qua stand. s good $n$ | EAB and BBD are taking rns fro harvest operations. at were marked and not period. | oll on this here are a ast entry |
| 17 | 4116 - Mixed N. Hardwood - Aspen | Poletimber Well | 35.2 | 68 | 81-110 | EAB and | t in this stand. Good look ready for a thinning at this | hardwood <br> e. |
| 21 | 4112 - Maple, Beech, Cherry Association | Sawtimber Well | 19.0 | 87 | 81-110 | This sta | ith EAB and BBD and the | is dead. |
| 23 | 4130 - Aspen | Poletimber Well | 21.8 | 50 | Unspecified | The ov the sma Recomm The stand | of the aspen in this stand there are pockets of 12-1 stand for age and size cla A3 and the stand to the sous cut this rotation. | a little on ch trees. diversity. is being |
| 25 | 4130 - Aspen | Sapling Well | 84.8 | 5 | Immature | Regener | d with a good number of $r$ revious harvest. | duals from |
| 27 | 4110 - Sugar Maple Association | Poletimber Well | 81.4 | 63 | 51-80 | This st m | last entry period. The reg is mostly concentrated in | ration is ches. |
| 28 | 6128 - Lowland Coniferous, Mixed Deciduous | Sawtimber Well | 5.2 | 98 | 111-140 |  | et that connects with a sm | pond. |
| 30 | 42140 - Planted Mixed Pine | Sapling Well | 9.5 | 5 | Immature | Planted | ck pine volunteers. Looks time. | od at this |
| 31 | 4110 - Sugar Maple Association | Sawtimber Well | 14.0 | 80 | 111-140 | Ash is starting | at this time woodpecker da is present in the stand but eavily white washed. | age is just ot all trees |
| 32 | 42110 - Planted Red Pine | Sawtimber Well | 7.4 | 56 | 171-200 |  |  |  |
| 33 | 42111 - Planted Red Pine, Mixed Deciduous | Sawtimber Well | 13.5 | 58 | 201+ |  |  |  |
| 34 | 42110 - Planted Red Pine | Sawtimber Well | 6.7 | 56 | 171-200 |  |  |  |
| 36 | 4319 - Mixed Upland Forest | Sapling Medium | 3.8 | 4 | Immature | The p planted | as harvested in 2009. The 10. The jack pine presen stock. | and was volunteer |
| 37 | 42200 - Natural White Pine | Poletimber Medium | 7.0 | 63 | 51-80 |  | mix of white pine and aspe |  |



| S | Cadillac |  |  | Report 8 - Forested Stands |  |  | Compartment: 139 <br> Year of Entry: 2017 <br> General Comments: |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| n | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range |  |  |  |
| 61 | 4133 - Aspen, Mixed Pine | Sawtimber Well | 12.2 | 67 | 111-140 | There is a small vernal pond in the center of this stand. This stand is shaped almost like a bowl with some steep terrain. This could make harvest difficult combined with the vernal pond. |  |  |
| 62 | 4130 - Aspen | Sapling Well | 52.2 | 25 | Immature | Regenerating aspen stand with some scattered super canopy red oaks from the previous stand. White pines are scattered throughout the stand and also in pockets. |  |  |
| 63 | 42110 - Planted Red | Poletimber Well | 6.5 | 58 | 111-140 | Treated last entry period looks good at this time. |  |  |
| 68 | 4119 - Mixed Northern Hardwoods | Sawtimber Well | 26.4 | 73 | 81-110 | There are a number of low wet pockets in this stand. The big tooth aspen is focused along the field edges. BBD and EAB are present in this stand and needs to be addressed at this time. |  |  |
| 71 | 4139 - Aspen, Mixed Deciduous | Sapling Well | 10.4 | 16 | Immature | Regenerating stand with a mix of aspen, beech and maple. |  |  |
| 72 | 4139 - Aspen, Mixed Deciduous | Poletimber Well | 40.8 | 55 | Unspecified | Stand co and sca toward | diverse with a good mix The cedar and hemlock is tion of the stand near the | ardwoods centrated pockets. |
| 74 | 4130 - Aspen | Sapling Well | 20.0 | 6 | Immature | This s thick to | last entry period and is ite pine was retained from about 40BA on average. | ing back previous |
| 76 | 4319 - Mixed Upland Forest | Sawtimber Well | 7.2 | 98 | 81-110 | Mixed st steep s | the old mill ponds some to the water. Other areas wet. | is is on low and |
| 77 | 42110 - Planted Red Pine | Poletimber Well | 5.9 | 58 | 201+ |  | between the railroad and | vate. |
| 78 | 42110 - Planted Red Pine | Sapling Medium | 6.1 | 7 | Immature | Planted red pine with a good number of jack pine recruits. Trees are $3-6 \mathrm{ft}$ tall with jack pine being taller than the red pine. |  |  |
| 79 | 42110 - Planted Red Pine | Sawtimber Well | 10.2 | 58 | 201+ |  |  |  |
| 80 | 4130 - Aspen | Sapling Well | 14.4 | 16 | Immature |  | spen stand with remnant |  |
| 81 | 4132 - Aspen, Jack Pine | Sapling Poor | 5.4 | 26 | Immature | Small open grown mixed stand |  |  |
| 82 | $42140 \text { - Planted Mixed }$ | Sapling Well | 84.5 | 15 | Immature | This is a planted red pine stand that has a very high number of jack pine recruits. |  |  |
| 83 | 4130 - Aspen | Sapling Well | 3.0 | 16 | Immature | Regenerating aspen stand looks good at this time. |  |  |
| 84 | 42110 - Planted Red Pine | Sawtimber Well | 20.2 | 54 | 141-170 |  |  |  |




| S | Cadillac Mgt. Unit |  |  | Report 8 - Forested Stands |  | Stands Compartment: 139 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \mathrm{a} \\ & \mathrm{n} \\ & \mathrm{~d} \end{aligned}$ | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: |
| 121 | 4131 - Aspen, Oak | Sapling Well | 21.6 | 17 | Immature | There was a fair amount of mature red oak left in this stand from the previous harvest. The BA is as high as 50 in places throughout the stand. There is also a trace of paper birch in this stand. |
| 122 | 42110 - Planted Red Pine | Poletimber Well | 19.4 | 54 | 111-140 | Pine looks good at this time. There is a fair amount of regeneration underneath. There are aspen pockets along the edges that are fairly thick. |
| 123 | 4130 - Aspen | Sapling Well | 6.2 | 17 | Immature | Regenerating aspen looks good at this time. |
| 124 | 4131 - Aspen, Oak | Sawtimber Well | 1.7 | 59 | Unspecified | Retention from previous harvest. Add site condition. |
| 126 | 6121 - Tamarack | Poletimber Poor | 5.6 | 73 | Unspecified | Small lowland area with a fair amount of Tamarack growing along the edges. There is also a good amount of sapling size trees filling in the edge. This stand is border line non forested there is a higher concentration of tamarack in the south end. There is also a good amount of leather leaf growing throughout the stand. |
| 127 | 42110 - Planted Red Pine | Poletimber Well | 9.2 | 59 | 111-140 | Stand was thinned and had all aspen removed last rotation. there is thick aspen regeneration coming back under the red pine. |
| 131 | 4131 - Aspen, Oak | Poletimber Well | 7.6 | 17 | Immature | Regenerating aspen stand that was harvested 2 rotations ago. The are large oak, maple and beech trees that were retained during harvest operations. |
| 132 | 4130 - Aspen | Sapling Well | 18.3 | 5 | Immature | Good looking aspen regen with mature over story oaks left from the previous harvest. There is a mature strip of timber between the powerline and the road that was left during the previous harvest. There is also a pocket at the north end of the stand that was left as retention. |
| 134 | 4130 - Aspen | Sapling Medium | 4.9 | 7 | Immature | Spruce and white pine trees planted by the Manton tiger cubs in 1997. |
| 136 | 42110 - Planted Red Pine | Sawtimber Well | 16.3 | 65 | 111-140 |  |
| 137 | 4130 - Aspen | Sawtimber Well | 5.8 | 72 | 81-110 | There are a couple of low wet pockets in this stand there presence is most likely seasonal. this stand is a mix of over mature aspen with hardwoods. |
| 139 | 4130 - Aspen | Sapling Well | 14.7 | 16 | Immature | Regenerating aspen stand looks good at this time. There are a good number of residual oak trees left from the previous stand to provide a mast source. |
| 140 | 4130 - Aspen | Sapling Well | 29.6 | 13 | Immature | Regenerating aspen stand with a nice mix of hardwoods and pine. |



| Stand | Cover Type | Acres | Managed Site | General Comments: |
| :---: | :---: | :---: | :---: | :---: |
| 8 | 310 - Herbaceous Openland | 3.3 | No | Small grass opening with trees out by the road. The trees were planted by the Manton girl scouts in 2000. |
| 18 | 310 - Herbaceous Openland | 1.0 | No | Small opening in a hardwoods stand. |
| 19 | 310 - Herbaceous Openland | 1.6 | No | Small opening in a hardwoods stand. |
| 20 | 310 - Herbaceous Openland | 1.7 | No | Small opening in a hardwoods stand. |
| 22 | 310 - Herbaceous Openland | 2.2 | No | Small opening in a hardwoods stand. |
| 24 | 310 - Herbaceous Openland | 1.7 | No | Small opening in a hardwoods stand. |
| 26 | 330 - Low-Density Trees | 2.6 | No |  |
| 35 | 330 - Low-Density Trees | 0.6 | No | Previous opening that is filling in with scotch pine seedlings. There is a plantation to the north on private land. |
| 42 | 330 - Low-Density Trees | 3.7 | No |  |
| 46 | 110 - Low Intensity Urban | 9.5 | No | Powerline ROW |
| 47 | 330 - Low-Density Trees | 4.9 | No |  |
| 49 | 330 - Low-Density Trees | 5.7 | No | There are at least 2 old foundations in this stand. |
| 51 | 500 - Water | 1.2 | No | Imagery interpreted as water. |
| 54 | 110 - Low Intensity Urban | 7.1 | No | Railroad corridor |
| 55 | 623 - Emergent Wetland | 1.3 | No | photo interpreted |
| 57 | 122 - Road/Parking Lot | 3.3 | No |  |
| 58 | 310 - Herbaceous Openland | 19.7 | No |  |
| 64 | 500-Water | 5.1 | No |  |


| Stand | Cover Type | Acres | Managed Site | General Comments: |
| :---: | :---: | :---: | :---: | :---: |
| 65 | 500 - Water | 2.4 | No |  |
| 66 | 623 - Emergent Wetland | 1.0 | No | Water with aquatic vegetation. |
| 67 | 623 - Emergent Wetland | 0.7 | No | water with aquatic vegetation. |
| 69 | 629 - Mixed non-forested wetland | 5.3 | No | Flooded timber that is 98\% dead several white pine and cedars remain. |
| 70 | 6239 - Mixed Emergent Wetland | 1.8 | No | Small wetland pocket with a border of white pines. |
| 73 | 310 - Herbaceous Openland | 1.2 | No |  |
| 107 | 623 - Emergent Wetland | 2.0 | No | Small water pocket surrounded by grass. |
| 109 | 122 - Road/Parking Lot | 3.1 | No | Road and ORV parking lot |
| 113 | 122 - Road/Parking Lot | 3.5 | No | 41 1/2 rd |
| 117 | 6239 - Mixed Emergent Wetland | 1.0 | No | Small wet pocket with marsh grasses and lowland brush. |
| 119 | 330 - Low-Density Trees | 9.3 | No | Open area that appears to be an old homestead area. There is a power pole with power running to it along the north line. |
| 125 | 122 - Road/Parking Lot | 6.5 | No | Old US-131 |
| 138 | 330 - Low-Density Trees | 10.9 | No | This was an opening that is currently being filled in with scotch pine seedlings and some small poles. |
| 154 | 110 - Low Intensity Urban | 3.5 | No | Active Railroad |
| 155 | 6239 - Mixed Emergent Wetland | 0.4 | No |  |
| 159 | 6239 - Mixed Emergent Wetland | 0.7 | No | Small wet pocket surrounded by aspen. |
| 162 | 500 - Water | 0.6 | No | This pocket was covered with snow but appeared to have water seeping up in the middle. There are a few shrubs on the edges. |
| 163 | 330 - Low-Density Trees | 2.0 | No |  |

