Gaylord Forest Management Unit<br>Compartment 52135<br>Entry Year 2017<br>Acreage: 3,827<br>County Emmet<br>Management Area: Mackinaw Lake Plain

Revision Date: 2015-05-08
Stand Examiner: Tricia St. Pierre

## Legal Description:

T39N R04W, Sec 22, 23, 24, 25, 26, 27, 34, 35, and 36.

## Identified Planning Goals:

The goals within this compartment are to provide protection and sound management practices for the natural resources herein and to sustainably manage the recreational opportunities those resources provide. There are many economic, social, and environmental consequences to consider when making management decisions within this compartment.

## Soil and topography:

This compartment contains three distinct soil type associations. The first exists in the Dune areas to the west of French Farm Lake. This association is referred to as the Deer Park Dune Land association. It contains deep, well drained, nearly level to very steep sandy soils on old lake beaches. The next association is the Carbondale-Tawas-Roscommon Association which exists on both sides of French Farm Lake. The soil type is present between the lake beach ridges, as well as in the low lying Cedar types to the southeast of French Farm Lake. This association is comprised of poorly drained organic and sandy soils. The third soil group is the East Lake-Blue Lake-Kalkaska association, which is located in the eastern sections of this compartment. These soils are well drained, nearly level, sandy soils.

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

State ownership in this compartment is fairly well consolidated with the exception of one private 40 -acre parcel and external boundaries that adjoin with private, not state, ownership. The Trails End Bay Colony is located west of the compartment along Wilderness Park Drive.

## Unique Natural Features:

There are many unique natural features that exist or have the potential to exist within this compartment. There is a large wooded Dune and Swale complex west of French Farm Lake, along a hardwood-conifer swamp and a Great Lakes Marsh. Eagle, Osprey, Loon, and tern also exist or have the potential to exist within this compartment. Other unique species include Sprague's pygarctia, pinedrops, beauty sedge, dwarf lake iris, Lake Huron Tansy, Pitcher's thistle, Houghton's goldenrod, Hill's pondweed, Ram's head lady slipper, butterwort, Torrey's bulrush, spotted pondweed, limestone oak fern, Michigan monkey flower, and Hungerford's crawling water beetle. There is great potential for eagle, osprey, Great Blue Heron, merlin, goshawk, and Blanding's Turtle.

## Archeological, Historical, and Cultural Features:

As mentioned in the locked comments, 20EM57 is located within this compartment. The site is still considered significant, and should be avoided. This stand should also not be used as a staging ground, workspace, or driven through as part of work in other nearby stands.
The location of this compartment in relation to Mackinaw, as well as its unique landforms, makes it a sensitive area with respect to cultural, historical, and archaeological values.

## Special Management Designations or Considerations:

There is a significant inclusion of a sensitive Dune and Swale complex to the west of French Farm Lake. The stands therein are protected by the Sand Dune Protection and Management program, which prevents any removal of vegetation, among other restrictions. The legal act pertaining to this protected area is Part 353, Sand Dune Protection and Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

## Watershed and Fisheries Considerations:

Both French Farm Lake and the French Farm Creek are located within this compartment. Though none of the treatments proposed appear as though they will impact this area directly, these are small waterbodies that would be significantly impacted through the loss of riparian vegetation, so the appropriate BMP's should be followed.

## Wildlife Habitat Considerations:

French Farm Flooding is a waterbody managed for wildlife values. Periodic drawdowns of the flooding will promote
vegetation for waterfowl. Furbearers such as beaver and muskrat are common.

## Mineral Resource and Development Concerns and/or Restrictions

Sections 22-27, T39N R4W, Emmet County
Surface sediments consist of lacustrine sand and gravel and dune sand. The glacial driff thickness varies between 10 and 100 feet. The Devonian Detroit River and Bois Blanc groups subcrop below the glacial drift. The Detroit River could be used for stone and there is a quarry in Section 24 (Bois Blanc Quarry?). A State gravel pit (French Farm Pit) is located and leased (Nonmetallic lease 160) in Section 25 and potential appears to be good. The nearest oil and gas production, the Antrim Shale gas play, is located 36 miles to the south. There is no known oil and gas potential in the area.

## Vehicle Access:

The vehicular access to this compartment is decent, especially with the snowmobile trail bisecting the east half and utility lines cutting across other portions (although these are typically low and wet maintenance-access trails). There are a few navigable logging trails within the stands themselves, but the predominant access will be along county roads or via the snowmobile trail. The Dune and Swale complex to the west of French Farm Lake is accessible in part by two roads running parallel to the shoreline, one of which continues on to the dam at the south end of the lake.

## Survey Needs:

There exist no imminent survey needs, and most corners have been established and are documented.

## Recreational Facilities and Opportunities:

Recreational opportunities abound in this compartment. Fishing, hunting, snowmobiling, hiking, and bicycling are the most popular, while many other opportunities exist. The North Central State Trail provides summer enthusiasts with a bicycling route, and winter adventurers with a groomed snowmobile trail. The North Country Trail also runs through this compartment, receiving foot and mountain bike traffic. Ice- and open water- fisherman frequent French Farm Lake. There were meandering cross country ski trails throughout parts of this compartment, as well as snowshoe trails over the winter.

## Fire Protection:

There is good water access on the west side of French Farm Lake. Lake Michigan would be a good option too. There aren't many highly volatile or fire-dependent covertypes within this compartment, and combined with the lowland swamps having a very long fire-disturbance pattern, fire danger is minimal.

## Additional Compartment Information:

There is a very large thicket of Japanese Knotweed north of this compartment on County land. It should be eradicated and the surrounding area should be closely monitored. Invasives would be devastating to this compartment, especially water/edge invasive species.

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 \&





Special Conservation Areas Compartment 135

$\star$ Remonumented Section C
$\diamond$ Field Grade GPS Corners - Miris Corners - Highway
-County Paved Roads

- Paved Roads
=County Gravel Roads
$=$ =Gravel Roads
- Poor Dirt Roads -- Trail (Non-Recreat
-... Closed Roads
$\times$ Gate

Hiking Trails
(4) Snowmobile Trails - - Hiking Pathways —Snowmobile Trails $=$ Rail to Trails ——Rivers - Pipeline $\dagger$ Powerline
$\square$ Stand Boundaries
Site Condition
--Available w/ Constraint
_-_Unavailable

Available Factors W/C onstraints
A. Special Conservation Areas 4A: No Markets Available for these $\quad$ Ecological Reference Areas Forest P roducts
SB: Maintain for regeneration purposes
$5 C$ : Delay treatment for age/size 5C: Delay treatment for age/size
class diversity or exceptional site quality

## Unavailable Factors

1A: Federal/State/Local Law
1C: Other dept or div proc/practices
1C: Other dept or div proc/practice
G: Foo wet (sensitive soils,


## Remonumented Section Corners Horse Trails

$\diamond$ Field Grade GPS Corners - Miris Corners
-Highway
—Paved Roads
= County Gravel Roads
$=$ =Gravel Roads

-     - Poor Dirt Roads
$\times$ Gate
Campground
Bike Trails
Hike Trails
Hiking Trails

4. Snowmobile Trails -- Hiking Pathways - - Bicycle/Dirt Bike Trails

-     - Equestrian Trails -Snowmobile Trails
=Rail to Trails
- Rivers
$\phi$ - Powerline
$\square$ Stand Boundaries

Special Conservation Areas Compartment: 135
\& Site Conditions Map T39N,R 04W, Sec. 22-27, 34-36 County: Emmet
Unit: Gaylord
Mgmt Area: Mackinaw Lake Plain
YOE: 2017
Acres: 3827 GIS Calculated
Examiner: Tricia St. Pierre
Map Revised: 5/20/2015
Map Phase: Pre-Review


Age Class


## Report 2 - Treatment Summary

Commercial Harvest - 165
Harvests with Site Condition - 0
Next Step Harvest - 0
Habitat Cut - 759

## Cover Type by Harvest Method



Proposed and Next Step Treatments by Harvest Method


| d | Treatment Name | Acres | Stand CoverType | Size Density | Stand Age | BA <br> Range | Treatment Type | Treatment Method | Cover Type Objective | Age Structure | Approval Status |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 14 | 52135014-Cut | 13.5 | 4130 - Aspen | Poletimber Well | 42 | 51-80 | Harvest | Clearcut with Retention | 413 - Aspen | Even-Aged | Proposal |

## Habitat Cut: No Site Condition: None

Prescription Clearcut all trees to $2^{\prime \prime}$ dbh. Area retention may be left in islands or on stand edges, especially around low areas or underrepresented species. Do Specs: not cut any pine or spruce.

Next Step
Treatments:
Acceptable Acceptable regeneration will satisfy minimum stocking requirements for aspen.
Regen:
Other Old next step comments:
Comment:
Proposed Start Date: $\quad$ 10/1/2016

| 14 | $\begin{aligned} & \text { 52135014- } \\ & \text { Cutx } \end{aligned}$ | 34.8 | 4130 - Aspen | Poletimber Well |  | 51-80 | Harvest | Clearcut with Retention | 413 - Aspen | Even-Aged | Draft Proposal |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Habitat Cut: No |  |  | Site Condition: None |  |  |  |  |  |  |  |  |
|  | Clearcut all trees to $2 " \mathrm{dbh}$. Area retention may be left in islands or on stand edges, especially around low areas or underrepresented species. Do not cut any pine or spruce. |  |  |  |  |  |  |  |  |  |  |
| Next Step <br> Treatments: |  |  |  |  |  |  |  |  |  |  |  |
| Acceptable Regeneration will satisfy minimum stocking levels for aspen. Regen: |  |  |  |  |  |  |  |  |  |  |  |
| Other Comment: Old next step comments: |  |  |  |  |  |  |  |  |  |  |  |
| Proposed Start Date: 10/1/2016 |  |  |  |  |  |  |  |  |  |  |  |
|  | 52135029-Cut |  | 4130 - Aspen | Poletimber Well |  | $51-80$ | Harvest | Clearcut with Retention | 413 - Aspen | Even-Aged | Proposal |
|  | tat Cut: No |  | Site Conditio | None |  |  |  |  |  |  |  |
| Prescription Clearcut all trees to $2^{\prime \prime}$ dbh. Area retention may be left in islands or on stand edges, especially around low areas or underrepresented species. Do Specs: not cut any pine or spruce. |  |  |  |  |  |  |  |  |  |  |  |
| Next Step Treatments: |  |  |  |  |  |  |  |  |  |  |  |
| Acceptable Acceptable regeneration will meet the minimum stocking requirements for aspen. Regen: |  |  |  |  |  |  |  |  |  |  |  |
| OtherComment: $\quad$ Old next step comments: |  |  |  |  |  |  |  |  |  |  |  |
| Proposed Start Date: |  | 10/1/2016 |  |  |  |  |  |  |  |  |  |
| 29 | $\begin{gathered} \text { 52135029- } \\ \text { Cutx } \end{gathered}$ | 27.1 | 4130 - Aspen | Poletimber Well | 42 | 51-80 | Harvest | Clearcut with Retention | 413 - Aspen | Even-Aged | Proposal |

Habitat Cut: No Site Condition: None
Prescription Clearcut all trees to 2" dbh. Area retention may be left in islands or on stand edges, especially around low areas or underrepresented species. Do Specs: not cut any pine or spruce.

Next Step
Treatments:
Acceptable Acceptable regeneration will satisfy minimum stocking levels for aspen.
Regen:
Other Old next step comments:
Comment:
Proposed Start Date: $\quad$ 10/1/2016


## 

Acceptable Acceptable regeneration will meet minimum stocking requirements for lowland poplar and swamp hardwood. A mix of conifer is also acceptable Regen: in the composition. This stand might take longer than average to regenerate to standard levels.

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


## Habitat Cut: No <br> Site Condition: None

Prescription Clearcut all trees to 2" dbh. Area retention may be left in islands or on stand edges, especially around low areas or underrepresented species. Do Specs: not cut any pine or spruce.

Next Step
Treatments:
Acceptable Acceptable regeneration will satisfy the minimum stocking levels for aspen.
Regen:
Other Old next step comments:
Comment:
Proposed Start Date: $\quad$ 10/1/2016

| 4852135048- <br> Monitor | 24.1 | 4130 - Aspen | Sapling <br> Medium | 5 | Immatu <br> re | Monitoring | Natural Regen <br> (Intermediate) | 413 - Aspen | Even-Aged | Draft Field <br> Boundary |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Habitat Cut: Yes |  | Site Condition: | None |  |  |  |  |  |  |  |

Prescription Regeneration survey to determine adequate stocking of stand. Considering similar stands in this compartment with similar histories, this will likely Specs: just need more time to regenerate.

Next Step
Treatments:
Acceptable Acceptable regeneration includes a mix of upland and lowland associated species including (but not limited to) aspen, maple, and mixed conifers. Regen:
Other There was snow on the ground during inventory, so stocking levels could be higher than observed. Old next step comments:
Comment:
Proposed Start Date: $\quad$ 10/1/2016

| 53 | 52135053-NF | 734.4 | 500 - Water | Nonstocked | Unspec <br> ified | NonForestMgt | Water Level <br> Management | 500 - Water |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |$\quad$ Proposal

## Habitat Cut: Yes Site Condition: None

Prescription French farm flooding will be drawn down periodically to maintain aquatic vegetation to benefit waterfowl and furbearing wildlife.
Specs:
Next Step
Treatments:
Acceptable
Regen:
Other Old next step comments:
Comment:
Proposed Start Date: $\quad$ 10/1/2016

| Dominant Site Conditions |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 C |  |  |  |  |  |  |  | 2G | 4A | 5B | 5 C |
| Aspen |  | 3 |  |  | 315 |  |  |  |  |  |  |
| Bare/Sparsely Vegetated |  |  |  |  |  |  |  |  |  |  |  |
| Bog |  |  |  |  |  |  |  |  |  |  |  |
| Cedar | 7 |  |  |  |  |  |  |  |  |  |  |
| Herbaceous Openland |  |  |  |  |  |  |  |  |  |  |  |
| Low-Density Trees |  |  |  |  |  |  |  |  |  |  |  |
| Lowland Aspen/Balsam Poplar |  | 29 | 13 |  |  |  |  |  |  |  |  |
| Lowland Conifers | 58 | 36 |  | 94 |  |  |  |  |  |  |  |
| Lowland Deciduous | 31 | 50 |  |  |  |  |  |  |  |  |  |
| Lowland Mixed Forest |  | 43 |  |  |  |  |  |  |  |  |  |
| Lowland Shrub |  | 34 |  |  |  |  |  |  |  |  |  |
| Marsh |  | 9 |  |  |  |  |  |  |  |  |  |
| Mixed Upland Deciduous |  |  |  |  |  |  |  |  |  |  |  |
| Natural Mixed Pines |  |  |  |  |  |  |  |  |  |  |  |
| Paper Birch |  |  |  |  |  |  |  |  |  |  |  |
| Red Pine |  |  |  |  |  |  |  |  |  |  |  |
| Sand, Soil |  |  |  |  |  |  |  |  |  |  |  |
| Upland Mixed Forest | 7 |  |  |  |  |  |  |  |  |  |  |
| Urban |  |  |  |  |  |  |  |  |  |  |  |
| Water | 0 | 24 |  |  |  |  |  |  |  |  |  |
| Total Forested Acres | 103 | 229 | 13 | 94 | 315 |  |  |  |  |  |  |
| Relative Percent |  |  |  |  |  |  |  |  |  |  |  |


| Site Dominant Site No. Cond Availability | Dominant Site Condition | Acres | Other Site Condition | Other Site Condition | Other Site Condition | Other Site Condition |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 Unavailable | 1A: Federal/State/Local Law | 261 | 3 K : Rare or unique landforms | 3A: Potential old growth / biodiversity | Unspecified | Unspecified |

Comments:

Gaylord Mgt. Unit
Report 5 - Site Conditions
Tricia St. Pierre : Examiner

| 2 | Unavailable | 1A: Federal/State/Local Law | 350 | $3 K$ : Rare or unique landforms | 3A: Potential old growth / biodiversity | Unspecified | Unspecified |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Comments: |  |  |  |  |  |  |  |
| 3 | Unavailable | 1A: Federal/State/Local Law | 250 | 3K: Rare or unique landforms | 3A: Potential old growth / biodiversity | Unspecified | Unspecified |
| Comments: |  |  |  |  |  |  |  |
| 4 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 315 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: <br> Delay treatment on this stand until it is better developed. If aspen acreage is desired to even out age classes, see aspen stands to the northeast. |  |  |  |  |  |  |  |
| 5 | Unavailable | 2G: Too wet (sensitive soils, does not include access issues) | 52 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: |  |  |  |  |  |  |  |
| 6 | Unavailable | 2G: Too wet (sensitive soils, does not include access issues) | 36 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: |  |  |  |  |  |  |  |
| 7 | Available | 5B: Maintain for regeneration purposes | 94 | Unspecified | Unspecified | Unspecified | Unspecified |
| This stand might also be too wet to cut. <br> The adjacent stand has been Rx'ed and sold, and is waiting to get cut. I would be interested to see what happens with regeneration before we enter this stand I still want to consider strip clearcuts of varying widths and direction. |  |  |  |  |  |  |  |

Report 5 - Site Conditions
Gaylord Mgt. Unit
Tricia St. Pierre : Examiner

Compartment: 135
Year of Entry: 2017

| 8 | Unavailable | 1C: Other dept or div proc/practices | 7 | Unspecified | Unspecified | Unspecified | Unspecified |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Comments: |  |  |  |  |  |  |  |
| 12 | Unavailable | 1C: Other dept or div proc/practices | 31 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: |  |  |  |  |  |  |  |
| 49 | Unavailable | 2G: Too wet (sensitive soils, does not include access issues) | 142 | Unspecified | Unspecified | Unspecified | Unspecified |
|  | These areas are too wet for harvesting activity and lack marketable wood. Most stand boundaries (and therefore site condition boundaries) were a result of the 1970s block cutting where producers could not push any further into these sites because of the conditions. |  |  |  |  |  |  |
| 52 | Unavailable | 1C: Other dept or div proc/practices | 65 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: |  |  |  |  |  |  |  |
| 62 | Available | 4A: No Markets Available for these Forest Products | 14 | 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.


## 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 <br> Area Type $\quad$ Description |
| :---: |

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

HCVA Critical Dunes Critical dune areas are established via the public legislative process, and governed by Part 353, Sand Dune Protection and Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451. The program is administered by the Michigan Department of Environmental Quality (DEQ). The current distribution of designated critical dunes is established by the DEQ 1989 Atlas of Critical Dune Areas.

## ERA Ecological

 Reference AreasEcological Reference Areas (ERAs) are high quality examples of natural communities that have been identified as Element Occurrences (EOs) by the Michigan Natural Features Inventory (MNFI) within the context of their natural community classification system. Element Occurrences with viability ranks of $A$ (Excellent) or B (Good) and a Global (G) or State (S) element (rarity) ranking of endangered (1), threatened (2), or rare (3) serve as an initial base of ERAs. They may be located upon any ownership in the State. The system is comprised of individual or associations of natural community types that are managed for restoration and maintenance of natural ecological processes and values. The public may submit recommendations for lands as ERAs using the DNR Conservation Area Recommendation Form.

| $\begin{aligned} & \mathrm{S} \\ & \mathbf{t} \\ & \mathbf{a} \\ & \mathbf{n} \\ & \mathbf{d} \end{aligned}$ | Gaylord <br> Level 4 Cover Type | Mgt. Unit <br> Size Density | Acres | Report 8 - Forested Stands |  |  | Compartment: 135 <br> Year of Entry: 2017 <br> General Comments: |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Stand Age | BA <br> Range |  |  |  |
| 1 | 6139 - Mixed Lowland Forest | Poletimber Well | 260.6 | 75 | 141-170 | Log whit on uppe few pock pine/oak dens clumpy, white stump higher <br> OPIC receding ridges <br> Hemlo brush several others b stan Prote removal perta Prote envi | pole black spruce. Occa ally in the north and eas east that are more simil stand to the east. Hem nerating hemlock is very ly throughout the stand Q. There are some fire mix of bigtooth aspen, the eastern boundaries <br> is part of the Dune / Sw the last 5000 years. T /Oak/Red pine with bal low areas are compris Some of the lower areas in the interdunal wetla <br> n. This stand was sepa ock dominance in seve area protected by the ement program, which p moung other restrictions ected area is Part 353, ment, of the Natural re on act, 1994 PA 451, as | red oak re are a he mixed occurs in e and for low on old ially on stand. <br> mplex of h beach fir in the <br> owland having from the as. The Dune ts any legal act Dune s and nded. |
| 2 | 6117 - Lowland Deciduous, Mixed Coniferous | Sawtimber Well | 323.4 | 90 | 111-140 | Stand h <br> The south slightly black swales. maple cedar greater are do There through <br> Correcte of rece lower ar wetlan separa several Sand prevent The lega Dune Pr env | $s$ between the north and higher stocking in the un n the south, there are pock dar, quaking aspen (det th aspen on dune with w northern half of the stand ne, and black ash in the w-down. Ridges (in the oak, mostly pine and big of sparsely vegetated, Some of which have sm ing through them. <br> nd is part of the Dune / ver the last 5000 years. rush and marsh types in species of concern. Th s because of it's Cedar is located in an area pro and Management progr vegetation, amoung othe this protected area is P agement, of the Natural on act, 1994 PA 451, as | h halves. ory with a s of dead ating) in pine, red s more es and me north) aspen. enings hannels <br> complex e of the interdunal and was nance in d by the which trictions. 53, Sand urces and nded. |






| 22 | 42110 - Planted Red Pine | Sawtimber Well | 13.1 | 53 | 111-140 | Thinned in 2008. <br> Stand is entering log status (still many poles). Stand had been thinned last YOE but BA is still 110-170. Crowns are 20\%, good quality sawlogs. Growth rings show some response to thinning. <br> Lowland tendencies throughout stand especially in the southwest with trace amounts of red maple, red pine, balsam fir, white cedar, white pine, and juniper coming up in the understory. Hole in southeast: red pine, white pine, balsam fir, paper birch, white spruce, knapweed, juniper, buffalo berry, bigtooth aspen (pocket), and hawthorn of variable size classes. <br> OPIC - FMD: RP plantation beginning to produce numerous saw sized trees. Stand was thinned last YOE, every third row taken out. Stand is ready for marked thinning this YOE, reduce BA to 100. D.H. 03/28/2005 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

23 \begin{tabular}{ccccc}
$42110-$ Planted Red <br>
Pine

 

Sawtimber <br>
Well
\end{tabular}$\quad 2.8 \quad 53 \quad 111-140$

Thinned in 2008.
$25 \%$ crowns. Browse on white ash understory. Very dense regen in middle of stand with log basswood and white ash. Edges have some log sugar maple seeding into stand.
OPIC - FMD: stand same as 22, split because of pipeline. RP plantation beginning to produce numerous saw sized trees. Stand was thinned last YOE, every third row taken out. Stand is ready for marked thinning this YOE, reduce BA to 100. D.H. 03/28/2005

24 \begin{tabular}{ccccc}

| $4199-$ Other Mixed |
| :---: |
| Upland Deciduous | \& | Poletimber |
| :---: |
| Medium | \& 6.4 \& 42 \& $51-80$

\end{tabular}

Highly variable stand with undefinable boundaries to the surrounding aspen stand. West pocket is dominated by bta; northwest dominated by balsam fir and red maple; north central white ash, paper birch, balsam fir; northeast - paper birch fading into paper birch, bta, basswood as you go south; digressing into sapling-pole sized and less dense mixed timber in the east and southeast. Ironwood consistent throughout.
OPIC - FMD: Scatterd upland brush with a few aspen creeping in from edges, still sapling sized. No Treatment. D.H. 03/28/2005


Level 4 Cover Type
Size
Density 6117 - Lowland Deciduous, Mixed Coniferous

Could not locate the data for this stand, but it was a very small upland "ridge" surrounded by lowland, dominated by red maple, paper birch, balsam fir, cedar, and lowland aspen. Lot of coyote tracks running the ridge through this stand. High balsam understory.

33 4130-Aspen \begin{tabular}{cc}

\hline | Sapling |
| :--- |
| Medium | \& 4.9 <br>

Immature | Heavy browsing on ash. Stand is upland with lowland associated |
| :---: |
| species, indicating that it has some low areas or is seasonally |
| wet. Thistle, milkweed, goldenrod, native phragmites, mullein, |
| elderberry, and winterberry are present. Lots of CWD from sale; |
| couple snags left standing too. Regenerating but spoty. White |
| cedar is in ditch along road and not present in the stand |
| otherwise. | <br>

OPIC - FMD: Treatment Update (Scheele 7/1/11): Stand <br>
harvested as part of French Lake Mix (52-128-09-01). Old <br>
Comments: Mature Q Aspen over thick BF understory.
\end{tabular}

| 35 | 42110 - Planted Red Pine | Sawtimber Well | 7.4 | 53 | 111-140 | Thinned in 2008. <br> Current $B A=120 .(130-140 B A$ in the north thinning down with some canopy gaps to 100-110 in the south.) <br> Sub-canopy is predominately along the western and southern edges with some various species seeding in along the gravel pit. Almost all sugar maple seedlings are in the southern portion of the stand in a fairly dense pocket. The western inner crescent has a dense and variable understory of red oak, balsam fir, quaking aspen, red maple, and choke cherry. There's a canopy gap in the southeast with pole and log sized balsam fir reaching into the canopy. Also came across trace amounts of white spruce and juniper in the south. Paper birch poles are along the southwest edge, mostly in the adjacent stand's boundaries. Red pine crowns are 20-15\%. Good quality plantation. One log sugar maple in the canopy in the south. <br> OPIC - FMD: RP plantation beginning to produce numerous saw sized trees. Stand was thinned last YOE, every third row taken out. Stand is ready for marked thinning this YOE, reduce BA to 100. D.H. 03/28/2005 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

36 6120-Lowland Cedar \begin{tabular}{ccccc}
Sawtimber <br>
Well

$\quad 7.3 \quad 75 \quad 81-110 \quad$

Very wet stand. EAB damage. Quaking aspen is dead standing. <br>
Rare plants (esp. fens) likely given habitat.
\end{tabular}

| 37 | 6124 - Lowland SpruceFir | Sawtimber Well | 93.6 | 85 | 81-110 | Stand transitions from lowland spruce/fir/cedar in the south to mixed lowland/upland white pine (with trace amounts of red pine)/fir/spruce/mixed hwd/aspen in the northeast. Smaller diameter spruce in the south (mostly pole timber), but overall logsized throughout stand. Few pockets in the north and center of stand with dense (2") cedar. Old logging road is being filled in with balsam fir and larch, also mixed aspen/birch in spots. Couple instances of blow-down. Small red pine pocket in the north. Diversion ditch is still diverting. <br> Stand could be too wet for treatment. Check out later in the year. OPIC - FMD: White spruce poletimber with scattered aspen, BF, and cedar Poles mixed in. Low and wet. Ditch runs through stand- probably to reduce water table for harvesting in early 1900's. No Treatment. D.H. 03/28/2005 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |




|  | Gaylord | Mgt. Unit |  | Report 8 - Forested Stands |  |  | Compartment: 135 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \mathbf{n} \\ & \mathbf{d} \end{aligned}$ | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range |  | General Comments: |  |
| 48 | 4130 - Aspen | Sapling Medium | 24.1 | 5 | Immature | Eagle n of a buffer of uplan black harvest drag regenera in a fe compare ye <br> OPIC harve Comme ground have $B$. and we Harvest. rd in. Block Ts Per com sam | exposed to the south couple white pine (sap) th the associated speci ow pockets too wet for ersity. Lots of CWD inc gers. Stand does not a could be. Recommend REGARDING REGENE 15) to the southeast, /reach breast height, so urveys should be prolon nt Update (Scheele 7/1 ench Lake Mix (52-128 nd going from A9 to P9 mber that is overmature scattered large aspen and most of the way arour to be tough, probably gets fairly close to the line out areas of E4. D. 22, 2005: Mark 4-8 tr ix of stand for coarse w | semblance nd is a mix Browse on ment to g a couple to be gen survey ION: As 6 took 20+ haps <br> Stand <br> 1). Old <br> 4. Higher <br> wer areas and is low <br> it. Final <br> to freeze a drom FF <br> 3/28/2005 <br> per acre of debris. |
| 49 | 6115 - Lowland Ash | Poletimber Well | 21.4 | 50 | 1-50 | vegetated aspen <br> Occasio red map <br> OPIC Lak | toral zone/tributary to th ts (alder, willow, cattail) he stream back into the stands. <br> ckets of dense balsam (on south edge, primarily) plings on the southern e EAB present. <br> wds- mostly B. Ash- stand year around. No Treatm 03/28/2005 | west, w quaking ounding ccasional There are <br> rders FF D.H. |
| 50 | 6120 - Lowland Cedar | Sawtimber Well | 269.3 | 118 | 141-170 | Predomi densely of aspe red m succ Layering this stan lots of b larch variabilit on edg balsam OPIC - | edar in the south slowly e cedar in the north. Sca (falling out); occasional pap and cedar regen is spotty of and within pockets of ore effective for cedar re long stand 15 is log and sam fir regeneration. Tra e edge along the utility line ecies composition, and am, quaking aspen, whit , willow, and red maple some mistletoe in north d of cedar poles. Bam m atment. D.H. 03/28/200 | sitioning to ed pockets birch and better wdown. eration in edar with amounts of Higher py closure dar, larch, sent. Few ce. in, a few |
| 51 | 6118 - Lowland Deciduous with Cedar | Sawtimber Well | 72.1 | 85 | 111-140 | White $p$ birch, larch, mo birch, B QA <br> FORMER <br> Diverse old, oth cedar in conifers | near utility line. Line of d road/very disturbed so east. Pockets of white ce scattered. Occasional et dominated by red ma and on the edge of blow s and meanders to the la southwest. <br> tand boundaries altered as heavy to WP-Tamara aspen/birch/Bam 20-30 d in stand. Majority of s en component. No trea 03/29/2005 | bh paper ew dead 16" paper larch, XL Cedar wn. in the PIC - FMD: 0-70 years old with is mixed nt. D.H. |




| S | Gaylord <br> Level 4 Cover Type | Mgt. Unit <br> Size Density | Report 8 - Forested Stands |  |  |  | Compartment: 135 <br> Year of Entry: 2017 <br> General Comments: | $2$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \mathrm{n} \\ & \mathrm{~d} \end{aligned}$ |  |  | Acres | Stand Age | BA Range |  |  |  |
| 69 | 4191 - Mixed Upland Deciduous with Conifer | Sawtimber Well | 16.4 | 85 | 111-140 | Variable topography; little bit of a ridgeline running N-S through stand with a couple "peaks". Came across one beech, pole, with scale; a few beech seedlings scattered. More red pine present in the south. Very small amount of cedar around the east edge, transitioning into a lowland cedar swamp. <br> OPIC - FMD: This stand is part of the Critical Dune area and borders French Farm Lake. This stand is comprised of upland wooded barrier dunes with slight to steep slopes. Stand has mostly Red Oak, Red Pine, and White Pine, with a few scattered pole sized BT aspen. The North Country Pathway leads through the stand and is used frequently. The area also recieves heavy use by campers, and ORV's. The stand is located in an area protected by the Sand Dune Protection and Management program, which prevents any removal of vegetation, amoung other restrictions. The legal act pertaining to this protected area is Part 353, Sand Dune Protection and Management, of the Natural resources and enviromental Protection act, 1994 PA 451, as amended. |  |  |
| 70 | 6119 - Mixed Lowland Deciduous Forest | Poletimber Poor | 7.3 | 45 | 1-50 | Trespass along north and west edge - road being used as access to private property. <br> Very dense shrub thicket interior with deteriorating overstory. Heavier to black ash in the center of the stand; quaking aspen perimeter with scattered spruce, occasional pine. West and north edges are particularly varied composition. Tag alder swamp in southeast. |  |  |
| 72 | 6132 - Mixed Lowland Forest with Cedar | Poletimber Well | 28.9 | 45 | 81-110 | MiFI would not let me accurate describe the canopy cover of this stand. There are some super-canopy spruce and that are not accounted for in the species description. <br> Spotty pockets of dense conifer, especially along trail. Bands of conifer throughout; some super-canopy white pine, white spruce, <br> BTA. Ol comments are relevant: <br> OPIC - FMD: Stand was harvested with FF Block in early 70's. Wet areas were left and not harvested which are scattered around in this stand. Stand is now lowland popple with scattered pockets of older $Q$ type inclusions. No Treatment. D.H. 03/28/2005 |  |  |
| 73 | 6112 - Lowland Aspen | Poletimber Well | 35.6 | 45 | 81-110 | Heavy browsing on ash. There are a few very low pockets with standing water, but stand is overwhelmingly lowland with a few drier pockets. Some scattered white pine and spruce in the super-canopy. Occasional white pine, pole, regenerating throughout stand. A couple pockets of BAM and QA - qa mostly on edge. Scattered red/pin oak, <1\%. <br> OPIC - FMD: Stand was harvested with FF Block in early 70's. Wet areas were left and not harvested which are scattered around in this stand. Stand is now lowland popple with scattered pockets of older $Q$ type inclusions. No Treatment. D.H. 03/28/2005 |  |  |
| 107 | 4134 - Aspen, Spruce/Fir | Poletimber Well | 3.5 | 33 | 51-80 | Canopy canopy co road, log cedar, | m fir, aspen, paper birch, maple, white ash, occas casional spruce/fir. Little behind utility station. TION for near by Pipe L | ce. Super oak along age with FMD: |


| S | Gaylord Mgt. Unit |  |  | Report 8 - Forested Stands |  |  | Compartment: 135 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \mathrm{n} \\ & \mathrm{~d} \end{aligned}$ | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Rang |  | General Comments: |  |
| 131 | 4199 - Other Mixed Upland Deciduous | Poletimber Well | 1.4 | 68 | 51-80 |  | se on understory. er birch are falling out; few ng east pvt line of bigtoo aspen throughout most of d stand; lots of multi-stem ps down but does not be wds on land under minera to paper birch. Split from No Treatment. D.H. 03/2 | ags. <br> pen with stand. trees. wet. se. Pole because 05 |


| Stand | Cover Type | Acres | Managed Site | General Comments: |
| :---: | :---: | :---: | :---: | :---: |
| 8 | 6223 - Inundated Shrub Swamp | 9.0 | No | Dead cedar, likely flooded by utility line development, in south third of stand - some cedar (sap and pole) regenerating under. Channels of water throughout. OPIC - FMD: Lowland brush, mostly Tag alder. No Treatment. D.H. 03/28/2005 |
| 10 | 6229 - Mixed lowland shrub | 26.2 | No | Scattered dead cedar throughout much of the stand's perimeter. The interior is wet, mostly alder with mixed shrubs. <br> OPIC - FMD: Split from stand 8 because of utility cooridor. Lowland brush, mostly Tag alder. No Treatment. D.H. 03/28/2005 |
| 25 | 3303 - Mixed Low Density Trees | 0.9 | No | A couple dead sumac. Dump site - trespass from landowner to the south. Highly variable stand where vegetated. Some standing water (ice), but unable to determine amount or seasonal presence. |
| 30 | 3301 - Low Density Deciduous Tree | 5.7 | No | Unmanaged low-density trees. Scotch pine seeding in from mature scotch pine planted on private to the north. |
| 34 | 790 - Other Bare/Sparsely Vegetate | 22.3 | No | Active gravel pit. Water (ice) in pools around stand. Few clumps of trees remaining; a couple red oak, red and white pine, paper birch on east edge. Red oak, quaking aspen, white ash present in clumps. OP IC - FMD: Gravel pit under mineral leaseactive and expanding. No Treatment. D.H. 03/28/2005 |
| 53 | 500 - Water | 734.4 | Yes | OPIC - FMD: French Farm Lake. |
| 54 | 6225 - Bog | 4.5 | No | Could not determine presence of grasses, water, moss, etc. $<1$ ' due to snow conditions. A handful of white pine seedlings on north half of stand. Poor growing conditions, pine are stressed. <br> OPIC - FMD: V type near FF lake, with in protected dune area. |

55 62399-Marsh (OI)
4.9 No

Live stream through stand with small channels, wet pockets throughout. OPIC - FMD: Marsh between Beach ridges in dune swale complex. Stand is within protected critical dune area. No Treatment. D.H. 03/28/2005

57 510- Water (OI)
23.9

No
Edges likely flood seasonally. Saplings/pole timber present on the edges and are highly susceptible to mortality within flood zone. EAB in black ash.
OPIC - FMD: French Farm Lake, southern portion with Dam located in SW corner.

58 629-Mixed non-forested wetland
EAB: most of the standing ash is dead. Trace QA. Low-medium stocking of woody vegetation; too much snow to determine water level and prominence (estimated at medium).
OPIC - FMD: Marsh between main body of water and southern pond of FF Lake. Surrounded by E type and water. No Treatment. D.H. 03/28/2005

616229 - Mixed lowland shrub

Dominated by alder, willow, BAM, and black ash. South edge is more forested by swamp hardwoods, but the rest is dominated by shrubs. EAB.
OPIC - FMD: Swamp hwds- mostly B. Ash- stand borders FF Lake. Low and wet year around. No Treatment. D.H. 03/28/2005

| Stand | Cover Type | Acres | Managed Site | General Comments: |
| :---: | :---: | :---: | :---: | :---: |
| 64 | 710 - Sand, Soil | 1.4 | No | Scramble area/RDR. Stand is exposed sand with clumps of trees and shrubs. Trees are mostly sapling/pole, but there are a few logs scattered about. <br> OPIC - FMD: Open sand dune with no forested cover. Receiving ORV damage yearly. Part of protected critical dune area. D.H. 03/29/2005 |
| 71 | 330 - Low-Density Trees | 0.5 | No | Too much snow to determine full inventory of species/grass/etc. |
| 74 | 110 - Low Intensity Urban | 0.6 | No | UTILITY STATION for near by Pipe Line. |
| 149 | 62399 - Marsh (OI) | 8.6 | No | High concentration of alder along the south and east edges, roughly $30 \%$ of the stand. Flowing water in north with a few rills also draining into the open water. OPIC - FMD: Marsh with beaver activity adjacent to FF Lake. Surrounded by Q type. No Treatment. D.H. 03/28/2005 |
| 150 | 6299 - Lowland Shrub (OI) | 3.0 | No | OPIC - FMD: Tag alder lowland surrounded by cedar and Q type. No treatment. D.H. 03/29/2005 |
| 400 | 31029 - Grass (OI) | 0.5 | No | OPIC - FMD: Utility ROW pipeline. |
| 401 | 31029 - Grass (OI) | 1.0 | No | Few hardwood saps on edges - basswood, sugar maple, white ash. Mullein and queen ann's lace also present. Some pole sized aspen in clumps. Utility ROW. OPIC - FMD: Utility ROW pipeline. |
| 402 | 6229 - Mixed lowland shrub | 88.0 | No | Mixed upland and lowland maintained utility line. Pocket of dense, sapling sized larch between stands 11 and 9. <br> OPIC - FMD: Utility ROW pipeline/ powerline. |

