



Compartment Review Presentation

Gwinn Forest Management Unit

Compartment 32036

Entry Year 2020

Acreage: 1,769

County Marquette

Management Area: Chain Lakes Moraine

Revision Date: 2018-08-06

Stand Examiner: Rick Hill

Legal Description:

Sections 19, 30 & 3, T45N-R26W Marquette County

Identified Planning Goals:

Vegetative management in the Chain Lake management area will provide a variety of forest products; maintain or enhance wildlife habitat; protect areas with unique characteristics; and provide for forest based recreational uses. Timber management objectives for the 10-year planning period include improving the age-class distribution of aspen, lowland conifer and lowland spruce/fir; maintaining the conifer component in northern hardwood stands; maintaining the presence of minor cover types on the landscape; and maintaining non-forest vegetation types. Wildlife management objectives include increasing diversity and long-term oak sustainability through under planting white and red pine; and to maintain or increase wildlife corridors especially along riparian areas. Management activities may be constrained by site conditions and the skewed age-class distributions. Balancing age classes and oak regeneration will be priority issues in this 10-year planning period.

Soil and topography:

Terrain ranges from flat in the Sothern end of the compartment to very steep ridges and kettle holes in the north end of the compartment. Soils are mostly excessively drained sands including Rubicon, Crowell, Munising, and Kalkaska.

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

This compartment lies in an area with mostly state land surrounding it. There are some camps and homes particularly on Crooked and Bass lakes.

Unique Natural Features:

This compartment is in at area with abundant lakes some of which have state land frontage.

Archeological, Historical, and Cultural Features:

A few old grades are present there is potential for old logging camps present.

Special Management Designations or Considerations:

Riparian area management is the only special management in this compartment.

Watershed and Fisheries Considerations:

The northern region of this compartment contains an unnamed waterbody. A 100' plus 5' per 1% increase in slope buffer is recommended to protect shoreland areas adjacent to the unnamed waterbody.

The central and southern regions of this compartment contain Crooked Lake and Poplar Creek. A 100' plus 5' per 1% increase in slope buffer is recommended to protect shoreland areas adjacent to Crooked Lake. Poplar Creek is a designated Type 1 trout stream less than 50' width. A 300' buffer is recommended for Poplar Creek in riparian areas susceptible to Aspen regeneration (specifically stand 416). For areas not susceptible to Aspen regeneration, 100' plus 5' per 1% increase in slope; buffers are recommended to protect these areas in accordance with Best Management Practices.

Wildlife Habitat Considerations:

Compartment 036 is found within the Chain Lakes Moraine Management Area; on a Disintegration Moraine in Southwestern Marquette County. The dominant Natural Communities are dry mesic northern forests, poor conifer swamps, and mesic northern forests. This management area offers opportunities to increase diversity and perhaps long-term oak sustainability through under planting white and red pine. Another priority is to maintain or increase wildlife corridors especially along riparian corridors. Wildlife management issues in the management area are: mast (hard and soft); habitat fragmentation; mature forest conditions; mesic conifer; course woody debris; and retention or development of large living and dead standing trees (for cavities). This management area represents approximately ¼ of the oak resource on WUP state forest.

The following have been identified as featured species for the Chain Lakes Management Area: black bear, gray jay,

pileated woodpecker, Northern goshawk, red crossbill.

Mineral Resource and Development Concerns and/or Restrictions

Active sand/gravel pits are not located in the area, but there appears to be some good sand & gravel potential within the compartment on the uplands. There is no known metallic mineral potential beneath the compartment. However, state minerals within the compartment were previously leased for metallic mineral exploration. There is no potential for economical oil and gas production in the UP. The state does not own the mineral rights beneath sections 30-31. Private mineral rights owners must be allowed reasonable access to the land should they choose to explore and/or develop the minerals.

Vehicle Access:

There is good access off of county roads in the area there is a good internal two track system providing access to most of the compartment.

Survey Needs:

Some survey work will be needed for timber sales, some survey may be needed for non timber trespass as well.

Recreational Facilities and Opportunities:

This compartment contains portions of the Bass Lake Motorcycle Trail. This area is also quite popular for hunting and fishing on inland lakes. Berry picking is also quite popular in the area. There is potential for the development of a boating access site on Crooked Lake.

Fire Protection:

There is moderate fire risk in this area, with some increase in risk and complexity due to wildland urban interface nearby.

Additional Compartment Information:

The following reports from the Inventory are attached:

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

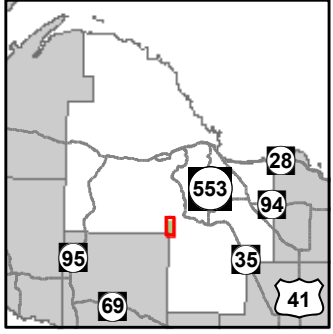
The following information is displayed, where pertinent, on the attached compartment maps:

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

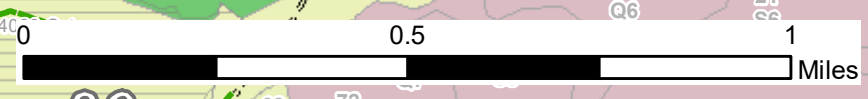
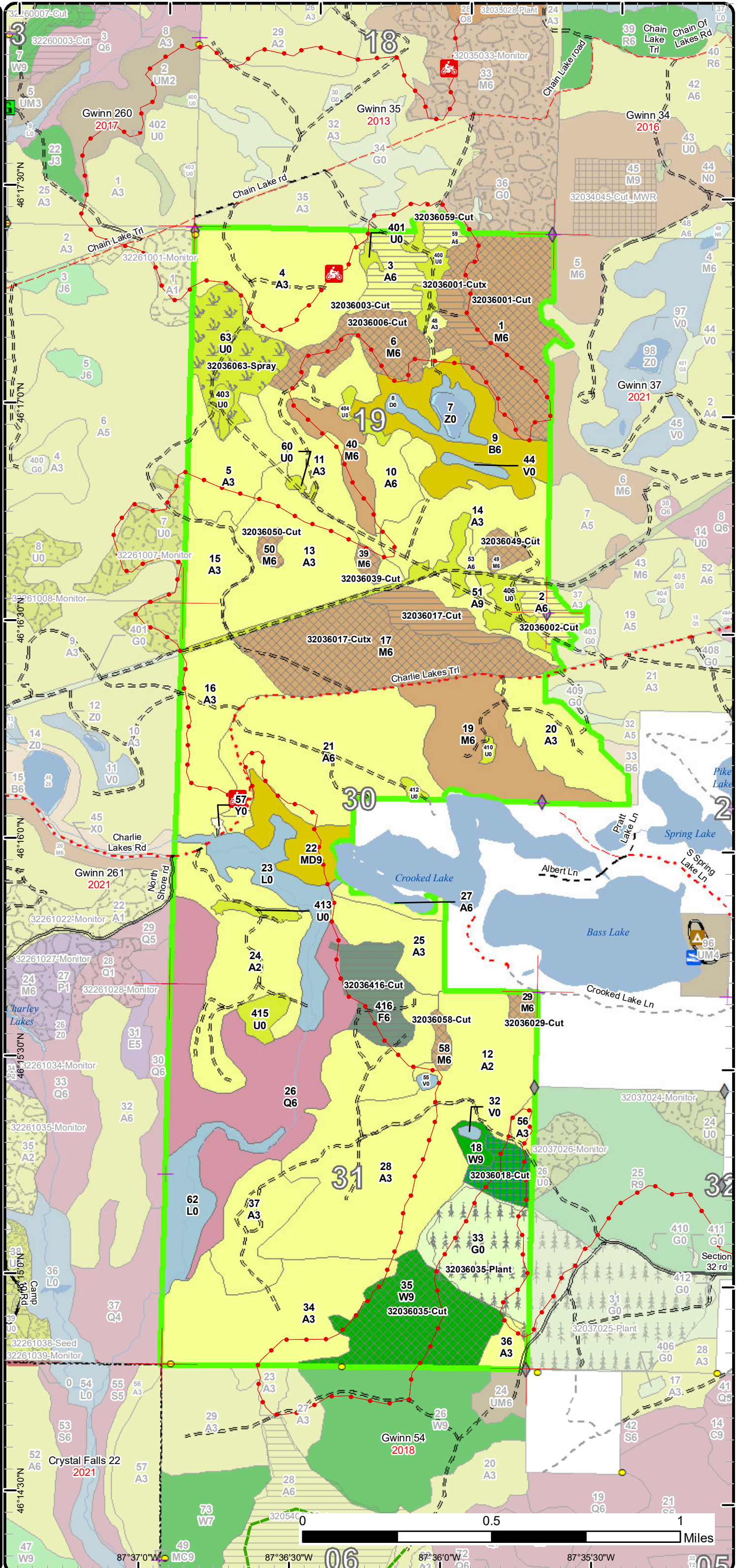
Cover Type & Treatments Map

Compartment: 36
T45N, R26W, Sec. 19, 30, 31

County: Marquette
Unit: Gwinn
Mgmt Area: Chain Lakes Moraine
YOE: 2020
Acres: 1,769 GIS Calculated
Examiner: Rick Hill
Map Revised: 8/24/2018
Map Phase: Web-Post



- Miris Corners
- + Remonumented Section Corners
- Survey Grade Corners
- ◆ Field Grade Corners
- Counties
- DNR - Primary Forest Road
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State / County - Paved Road
- Federal / State - Dirt / Gravel Road
- County - Gravel Road
- County - Dirt Road (Seasonal)
- Private - Dirt / Gravel Road
- 🏍️ Motorcycle Trails (DNR License)
- Designated Hiking Trails
- ORV License & Trail Permit
- Intermittent Stream
- Island in Lake or River
- Lake/Pond
- Perennial River
- Lakes and Rivers All
- 🚤 Boating Access Site
- ▲ Campground
- Compartment Boundary
- Selection (Group, Single Tree)
- Planting (tree species)
- Clearcut (w/Reserves)
- Pesticide
- Seed Tree (w/Reserves)
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 612 - Lowland Coniferous Forest
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 710 - Sand/Soil
- Lakes

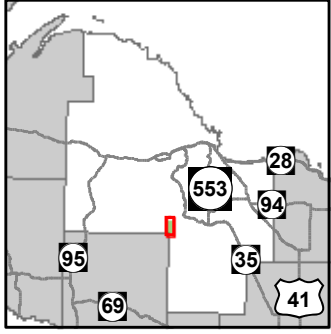


Coordinates: 46°17'30"N, 46°16'30"N, 46°15'30"N, 46°14'30"N, 87°37'0"W, 87°36'30"W, 87°36'0"W, 87°35'30"W

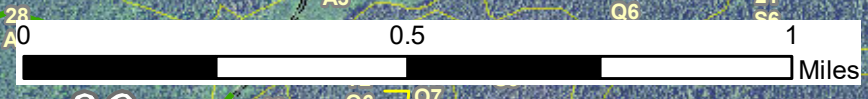
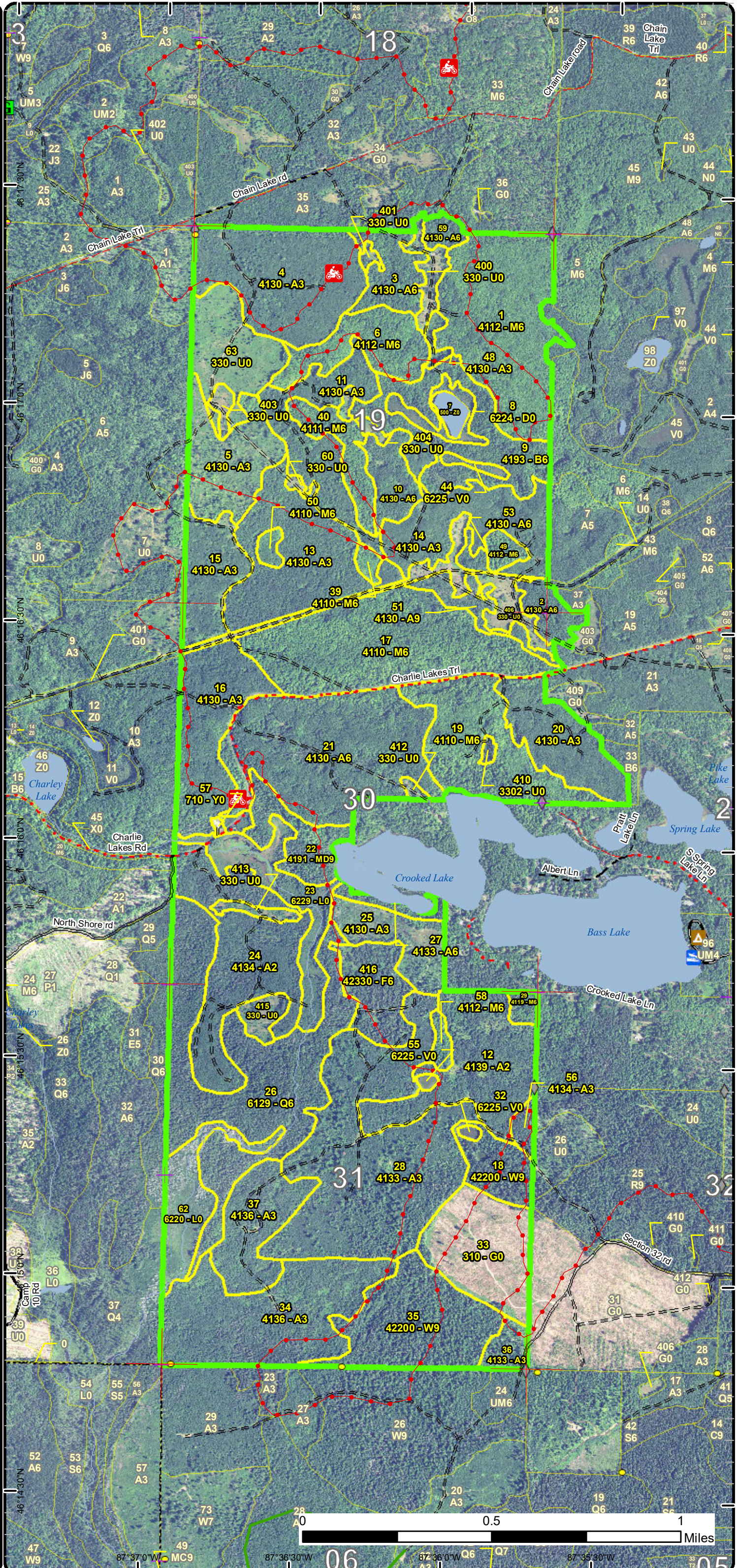
Stand Boundary Map

Compartment: 36
T45N, R26W, Sec. 19, 30, 31

County: Marquette
Unit: Gwinn
Mgmt Area: Chain Lakes Moraine
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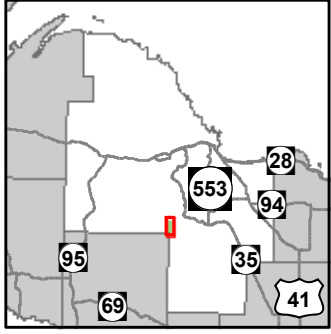


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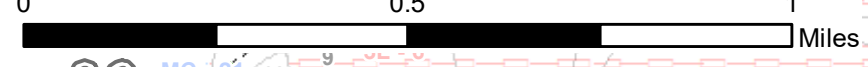
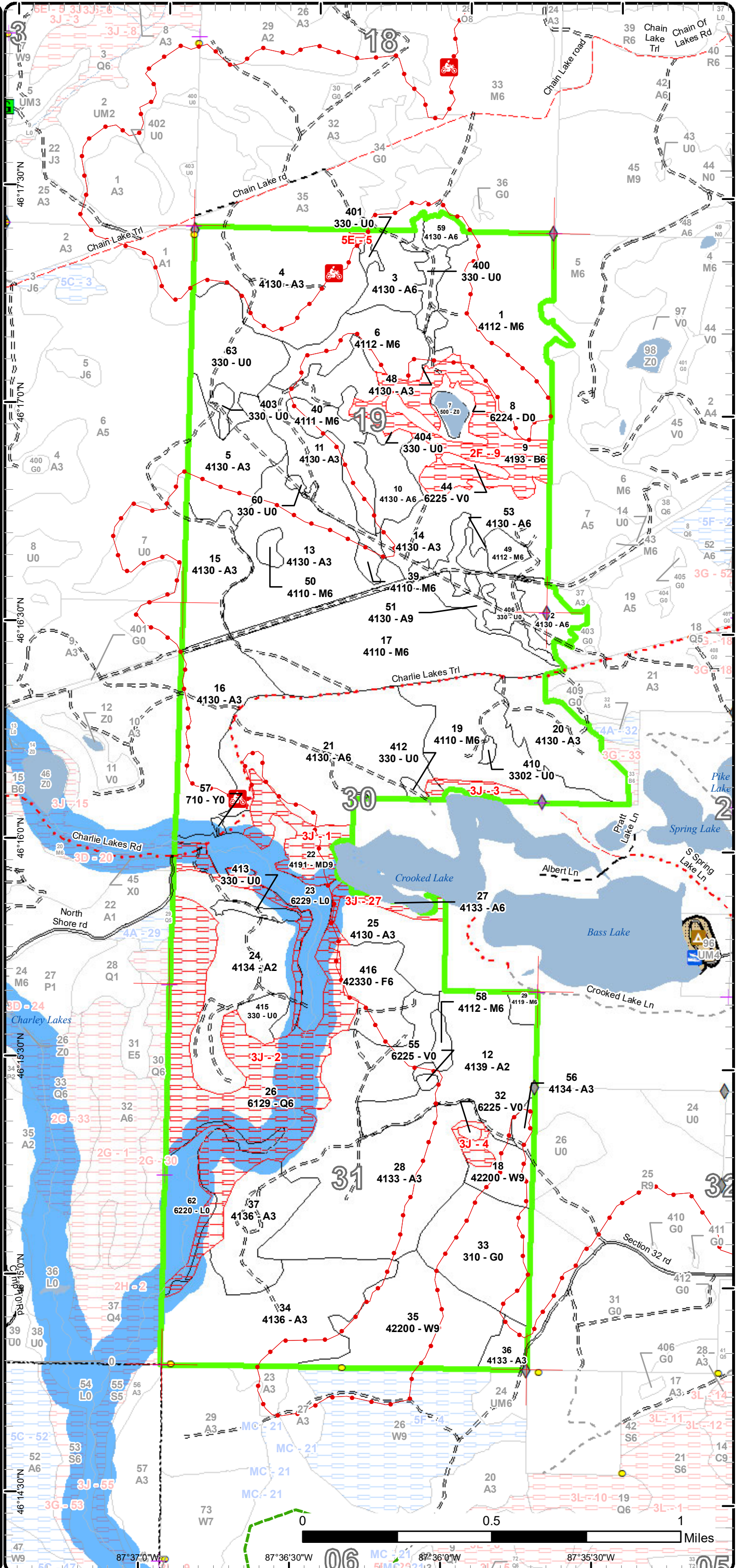
Special Conservation Areas & Site Conditions Map

Compartment: 36
T45N, R26W, Sec. 19, 30, 31

County: Marquette
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- Designated Hiking Trails
- ORV License & Trail Permit
- Intermittent Stream
- Island in Lake or River
- Lake/Pond
- Perennial River
- Lakes and Rivers All
- Boating Access Site
- ▲ Campground
- Compartment Boundary
- Unavailable
- 2F: Too steep
- 3J: Water quality / BMPs (stream, river, or lake)
- 5E: Long-Term Retention
- Stand Boundaries
- SCA
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer
- State Forest Campground



Coordinates: 46°17'30"N, 46°16'30"N, 46°15'30"N, 46°14'30"N, 87°37'0"W, 87°36'30"W, 87°36'0"W, 87°35'30"W

Report 1 – Total Acres by Cover Type and Age Class

Gwinn Mgt. Unit
Rick Hill : Examiner

Compartment 36 Year of Entry 2020



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	75	318	359	138	43	25	0	0	0	6	0	0	0	0	0	0	0	964
Bog	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Herbaceous Openland	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
Low-Density Trees	92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	92
Lowland Conifers	0	0	0	0	0	0	0	0	114	0	0	0	0	0	0	0	0	0	114
Lowland Shrub	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	22
Northern Hardwood	0	0	0	0	0	0	0	84	6	8	0	0	0	0	0	0	0	202	300
Paper Birch	0	0	0	0	0	0	0	0	47	0	0	0	0	0	0	0	0	0	47
Sand, Soil	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Treed Bog	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Upland Spruce/Fir	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	0	26
Water	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
White Pine	0	0	0	0	0	0	0	0	0	77	0	0	0	0	0	0	0	0	77
Total	219	75	318	359	138	69	25	84	167	85	6	0	0	0	0	0	0	224	1768



Report 2 – Treatment Summary

Gwinn Mgt. Unit

Year of Entry: 2020

Acres of Harvest

Compartment 36

Total Compartment Acres: 1,769

Commercial Harvest - 352
 Harvests with Site Condition - 0
 Next Step Harvest - 0
 Habitat Cut - 0

Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen	35	0	0	0	0	0	0	0	0	35
Northern Hardwood	25	195	0	0	0	0	0	0	0	219
Upland Spruce/Fir	26	0	0	0	0	0	0	0	0	26
White Pine	0	58	0	14	0	0	0	0	0	72
Total	86	253	0	14	0	0	0	0	0	352

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	352	0	45	0	0	35	0	0	0	432
Next Step	0	61	61	0	0	26	538	0	0	686
Total	352	61	106	0	0	61	538	0	0	1118



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
1	32036001-Cut	71.4	4112 - Maple, Beech, Cherry Association	Poletimber Well	65	111- 140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven- Aged	Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Cut using a selection system. Target 80 Square feet of residual. In general, use the complete marker as a guide. Try to improve stand quality by											
<u>Specs:</u> marking doubles and trees with obvious defect. Favor oak and black cherry retention and regeneration though marking. Make gaps where possible around oak to try and get some oak regeneration. Protect the Bass Lake trail during the sale.											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> Maple, mixed hardwood, aspen, mixed conifer											
<u>Regen:</u>											
<u>Other</u> Wildlife: Oak is only 8% of the stand I would like to see no red oak removed during harvest, also the occasional cherry be retained – black bear,											
<u>Comment:</u> white-tailed deer											
<u>Proposed Start Date:</u> 10/01/2019											
1	32036001- Cutx	7.5	4112 - Maple, Beech, Cherry Association	Poletimber Well	65	111- 140	Harvest	Clearcut with Retention	411 - Northern Hardwood	Even-Aged	Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Clearcut stand using a 2 inch spec. Leave all oak, hemlock, cherry, red and white pine. The Bass Lake Motorcycle Trail as the eastern edge of											
<u>Specs:</u> the stand. leave a small retention pocket in northern part of the stand.											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> Mixed northern hardwood,											
<u>Regen:</u>											
<u>Other</u> Cut in summer if possible to provide some light scarification.											
<u>Comment:</u> Wildlife: Poor maple which will be converted to aspen-ruffed grouse; retain all cherry- black bear											
<u>Proposed Start Date:</u> 03/23/2018											
2	32036002-Cut	11.8	4130 - Aspen	Poletimber Well	45	Unspec ified	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Clearcut using a 2-inch spec. Leave all red pine, white pine, and oak. Insure that retention area has black cherry and some white birch and big											
<u>Specs:</u> tooth aspen if present.											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> Aspen, mixed hardwood, mixed conifer											
<u>Regen:</u>											
<u>Other</u> Wildlife: Retention should include Big Tooth Aspen - Northern Goshawk Look for opportunities to retain large fork crowned trees											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2019											
3	32036003-Cut	18.4	4130 - Aspen	Poletimber Well	55	51-80	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Cut all trees using a 2-inch spec. Leave all oak, red pine and white pine. Protect Bass Lake Trail by using the trail as red line. The west side of											
<u>Specs:</u> the trail will be long term retention. Insure this retention area has black cherry and some white birch.											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> Aspen, maple, oak, spruce, fir											
<u>Regen:</u>											
<u>Other</u> Wildlife: Retention will favor black cherry–Black Bear, Ruffed Grouse If available a few large white-birch should be add to retention – pileated											
<u>Comment:</u> woodpecker											
<u>Proposed Start Date:</u> 10/01/2019											



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
6	32036006-Cut	30.1	4112 - Maple, Beech, Cherry Association	Poletimber Well	75	111- 140	Harvest	Group Selection	411 - Northern Hardwood	Even-Aged	Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Cut using a selection system. Target 80 Square feet of residual. In general, use the complete marker as a guide. Try to improve stand quality by											
<u>Specs:</u> marking doubles and trees with obvious defect. Favor oak and black cherry retention and regeneration though marking. Make gaps where possible around oak to try and get some oak regeneration. Favor mesic conifer retention though marking (including white spruce).											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> Maple, mixed hardwood, aspen, mixed conifer, oak											
<u>Regen:</u>											
<u>Other</u> Wildlife: Favor Red Oak through marking and only take if needed for operability- white-tail deer, black bear. If available black cherry be retained											
<u>Comment:</u> – black bear, white-tailed deer, retention should include as many wind firm White Spruce has available (2%) (gray jay, red crossbill, wildlife cover)											
<u>Proposed Start Date:</u> 10/01/2019											
17	32036017-Cut	17.1	4110 - Sugar Maple Association	Poletimber Well	80	111- 140	Harvest	Clearcut with Retention	411 - Northern Hardwood	Even-Aged	Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Cut all trees using a 2-inch spec. Leave all oak, black cherry, white pine, and red pine. Leave a retention pocket along the elf line.											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> Maple, oak, aspen, mixed hardwood, mixed conifer.											
<u>Regen:</u>											
<u>Other</u> Poor maple which will be converted to aspen- ruffed grouse If available black cherry be retained as well – black bear											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2019											
17	32036017- Cutx	76.9	4110 - Sugar Maple Association	Poletimber Well	80	111- 140	Harvest	Group Selection	411 - Northern Hardwood	Uneven- Aged	Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Cut using a selection system. Target 80 Square feet of residual. In general, use the complete marker as a guide. Try to improve stand quality by											
<u>Specs:</u> marking doubles and trees with obvious defect. Favor oak and black cherry retention and regeneration though marking. Make gaps where possible around oak to try and get some oak regeneration.											
<u>Next Step</u> Monitoring, Artificial Regen(3yr)											
<u>Treatments:</u>											
<u>Acceptable</u> Maple, mixed hardwood, aspen, mixed conifer, oak.											
<u>Regen:</u>											
<u>Other</u> Wildlife: Favor Red Oak through marking and only take if needed for operability- white-tail deer, black bear. If available black cherry be retained											
<u>Comment:</u> – black bear, white-tailed deer											
<u>Proposed Start Date:</u> 10/01/2019											
18	32036018-Cut	13.7	42200 - Natural White Pine	Sawtimber Well	80	81-110	Harvest	Seed Tree with Retention	4220 - Natural White Pine	Even-Aged	Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> White pine is getting quite large here. The stand could be regenerated. mark 10-20 Sq. feet of white pine to leave for seed. Leave a retention											
<u>Specs:</u> area along the south edge of the stand to help with green up concerns. Protect the Bass Lake trail during the sale. Legacy trees and oversize white pine will be left with this treatment.											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> White pine, aspen, red pine, mixed hardwood, mixed softwood.											
<u>Regen:</u>											
<u>Other</u> Wildlife: no oversized white pine trees should be harvested - Black Bear.											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2019											



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
29	32036029-Cut	4.1	4119 - Mixed Northern Hardwoods	Poletimber Well	80	111-140	Harvest	Group Selection	411 - Northern Hardwood	Uneven-Aged	Proposal

Habitat Cut: No**Site Condition:**

Prescription Cut using a selection system. Target 80 Square feet of residual. In general, use the complete marker as a guide. Try to improve stand quality by marking doubles and trees with obvious defect. Favor hemlock, yellow birch, white spruce, and cedar retention and regeneration though marking.

Next Step Monitoring, Natural Regen (Re-Inventory)
Treatments:

Acceptable Maple, mixed hardwood, mixed conifer.
Regen:

Other Wildlife: Add in retain all hemlock (red-crossbill, white-tail deer) white cedar, yellow birch and white spruce (small stand).
Comment:

Proposed Start Date: 10/01/2019

35	32036035-Cut	58.0	42200 - Natural White Pine	Sawtimber Well	85	141-170	Harvest	Group Selection	4220 - Natural White Pine	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Cut using a selection system. Target 70 square feet of residual. Make gaps to allow regeneration and to release existing regeneration. All merchantable red maple and aspen should be harvested. Protect the Bass Lake trail during the sale. Legacy trees and oversize white pine will be left with this treatment. Mark white spruce to cut leaving wind firm trees that look healthy.

Next Step Monitoring, Natural Regen (Re-Inventory)
Treatments:

Acceptable White pine, spruce, aspen, mixed hardwood
Regen:

Other Wildlife: Note: no oversized white pine trees should be harvested - Black Bear. Retention should include as many wind firm White Spruce has available (5%) (gray jay, red crossbill, wildlife cover)
Comment:

Proposed Start Date: 10/01/2019

28	32036035-Plant	44.5	4133 - Aspen, Mixed Pine	Sapling Well	15	Immature	Planting	Initial Plant	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Site trenched plant per TMS spec.
Specs:

Next Step Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)
Treatments:

Acceptable Red pine
Regen:

Other Percent to Treat = 100%
Comment:

Proposed Start Date: 12/13/2017

39	32036039-Cut	3.0	4110 - Sugar Maple Association	Poletimber Well	80	111-140	Harvest	Group Selection	411 - Northern Hardwood	Uneven-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Cut using a selection system. Target 80 Square feet of residual. In general, use the complete marker as a guide. Try to improve stand quality by marking doubles and trees with obvious defect. Favor oak and black cherry retention and regeneration though marking. Make gaps where possible around oak to try and get some oak regeneration. Protect the Bass Lake trail during the sale.

Next Step Monitoring, Natural Regen (Re-Inventory)
Treatments:

Acceptable Maple, mixed hardwood, aspen, mixed conifer, oak.
Regen:

Other Wildlife: Favor Red Oak through marking and only take if needed for operability- white-tail deer, black bear.
Comment:

Proposed Start Date: 10/01/2019

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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
49 32036049-Cut	5.5	4112 - Maple, Beech, Cherry Association	Poletimber Well	70	111-140	Harvest	Group Selection	411 - Northern Hardwood	Uneven-Aged	Proposal

Habitat Cut: No**Site Condition:**

Prescription Cut using a selection system. Target 80 Square feet of residual. In general, use the complete marker as a guide. Try to improve stand quality by marking doubles and trees with obvious defect. Favor oak and black cherry retention and regeneration though marking. Make gaps where possible around oak to try and get some oak regeneration. Leave a few paper birch for wood pecker habitat.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Maple, mixed hardwood, aspen, mixed conifer, oak.

Regen:

Other Wildlife: Favor Red Oak through marking and only take if needed for operability- white-tail deer, black bear.

Comment:

Proposed Start Date: 10/01/2019

50 32036050-Cut	3.5	4110 - Sugar Maple Association	Poletimber Well	80	111-140	Harvest	Group Selection	411 - Northern Hardwood	Uneven-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Cut using a selection system. Target 80 Square feet of residual. In general, use the complete marker as a guide. Try to improve stand quality by marking doubles and trees with obvious defect. Make gaps where possible around oak to try and get some oak regeneration. Favor oak and black cherry retention and regeneration though marking.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Maple, mixed hardwood, mixed conifer, oak

Regen:

Other Wildlife: Favor Red Oak through marking and only take if needed for operability- white-tail deer, black bear. If available a few large white-birch

Comment: should be add to retention – pileated woodpecker

Proposed Start Date: 10/01/2019

58 32036058-Cut	4.1	4112 - Maple, Beech, Cherry Association	Poletimber Well	80	111-140	Harvest	Group Selection	411 - Northern Hardwood	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Cut using a selection system. Target 80 Square feet of residual. In general, use the complete marker as a guide. Try to improve stand quality by marking doubles and trees with obvious defect. Favor hemlock, yellow birch, and cedar retention and regeneration though marking.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Maple, mixed hardwood, and mixed conifer.

Regen:

Other Wildlife: Favor yellow birch in retention- seed is an important food source for many winter birds as well as ruffed grouse.

Comment:

Proposed Start Date: 10/01/2019

59 32036059-Cut	5.2	4130 - Aspen	Poletimber Well	55	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Clearcut stand using a 2 inch spec. Leave all oak, red pine and white pine. Insure that retention area has black cherry and some white birch and big tooth aspen if present.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen, mixed hardwood, mixed conifer

Regen:

Other Wildlife: Retention should include some Big Tooth Aspen - Northern Goshawk Look for opportunities to retain large fork crowned trees

Comment:

Proposed Start Date: 10/01/2019

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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
63 32036063-Spray	35.4	330 - Low-Density Trees	Nonstocked	0	Unspecified	Pesticide	Skidder/Mechanical	42110 - Planted Red Pine	Even-Aged	Proposal

Habitat Cut: No**Site Condition:**

Prescription Spray what little aspen regen came up to prep site for red pine planting.

Specs:

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

Treatments:

Acceptable Red pine

Regen:OtherComment:

Proposed Start Date: 10/01/2019

416 32036416-Cut	25.9	42330 - Upland Fir	Poletimber Well	40	81-110	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Clearcut all trees using a 2-inch spec. leave retention as a river buffer along the west edge of the stand. Leave all red pine and white pine and

Specs: any oak if present. Ensure that the Bass lake trail is protected during sale. Long term retention should include white spruce and white birch if present.

Next Step SitePrep, Trenching; Planting, Initial Plant; Pesticide, Skidder/Mechanical; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)

Treatments:

Acceptable Red pine, spruce, fir, white pine

Regen:Other

Comment: Wildlife: Retention should include as many wind firm White Spruce has available (5%) (red crossbill and gray jay, wildlife cover). White-birch

(3%) should be add to retention – pileated woodpecker (North half of stand is Game and Fish Fund)

Proposed Start Date: 10/01/2019

**Total Treatment
Acreage Proposed: 436.1**

Report 4 – Site Conditions

Gwinn Mgt. Unit
Rick Hill : Examiner

Compartment: 36
Year of Entry: 2020

Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	2F	3J	5E
		With Condition	Not Available				
964	884	0	80	Aspen		79	1
5	5	0	0	Bog			
47	47	0	0	Herbaceous Openland			
92	88	0	4	Low-Density Trees		4	
114	0	0	114	Lowland Conifers		114	
61	53	0	8	Lowland Shrub		8	
22	0	0	22	Mixed Upland Deciduous		22	
300	295	0	5	Northern Hardwood		5	
47	0	0	47	Paper Birch	47		
1	1	0	0	Sand, Soil			
8	8	0	0	Treed Bog			
26	26	0	0	Upland Spruce/Fir			
5	5	0	0	Water			
77	72	0	4	White Pine		4	
1,769	1,484		285	Total Forested Acres	47	237	1
	84%		16%	Relative Percent			

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

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	22	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
2	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	135	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Gwinn Mgt. Unit
Rick Hill : Examiner

Compartment: 36
Year of Entry: 2020

3	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	4	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
9	Unavailable	2F: Too steep	47	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
27	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Mgt. Unit

Compartment: #Type!

Year of Entry:



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

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

SCA Name	SCA Category	Detail Type	Recommendation	Acres
Comments				



Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS

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

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

Conservation Area	Type	Description
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4112 - Maple, Beech, Cherry Association	Poletimber Well	83.7	65	111-140	Even aged stand of well stocked hardwood poles and saplings. There is a good scattering of large red oak sawtimber trees and an occasional cherry, white birch, and yellow birch. The Bass Lake Motorcycle trail runs through the western portion of the stand. Terrain is quite hilly.
2	4130 - Aspen	Poletimber Well	11.8	45	Unspecified	This stand straddles two openings the north edge of the stand is the old ELF line. This stand looks good at this point and could be harvested to break up age classes in this area.
3	4130 - Aspen	Poletimber Well	19.3	55	51-80	Aspen stand on the verge on converting to maple. Aspen is starting to fall out of stand. There is some oak scattered around the site.
4	4130 - Aspen	Sapling Well	68.8	15	Immature	Stand was harvested in the summer of 2002 under sale 32-010-00-01. Reeneration is coming back quite well.
5	4130 - Aspen	Sapling Well	38.0	5	Immature	Treated summer of 2012 by K & K Logging under contract # 013-10-01.
6	4112 - Maple, Beech, Cherry Association	Poletimber Well	30.1	75	111-140	Poorer hardwood site with twins and triplets. Stand also contains scattered white birch, and red oak. Fairly heavy ironwood regeneration. Terrain is fairly steep with ridges and valleys. Bass Lake Motorcycle trail runs thru this stand.
9	4193 - Birch, Aspen	Poletimber Well	47.1	74	81-110	White birch stand growing on the steep ridges and sink holes around a bog lake. Higher percentage of aspen and red maple in the northeast. Diameter decreases in the western portion of the stand. There is evidence the stand originated from wildfire.
10	4130 - Aspen	Poletimber Well	16.2	45	51-80	Treated in 1972 using KG, the stand has just transitioned to a pole stand over aspen saplings.
11	4130 - Aspen	Sapling Well	39.7	16	Immature	Treated under permit # 011-00-01, the stand has regenerated well.
12	4139 - Aspen, Mixed Deciduous	Sapling Medium	58.2	27	Immature	
13	4130 - Aspen	Sapling Well	61.5	26	Immature	Stand is fully stocked aspen 2-4" diameter, 20-30' tall.
14	4130 - Aspen	Sapling Well	48.0	13	Immature	Cut under permit # 012-00-01 by Minerick Logging in 2005. Aspen has regenerated nicely.
15	4130 - Aspen	Sapling Well	28.6	15	Immature	Cut the summer of 2002 under permit # 013-00-01. The regeneration is 4-8' tall, but there are some sparse areas.
16	4130 - Aspen	Sapling Well	52.1	23	Immature	
17	4110 - Sugar Maple Association	Poletimber Well	93.9	80	111-140	Cut under permit # 014-00-01.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
18	42200 - Natural White Pine	Sawtimber Well	18.2	80	81-110	
19	4110 - Sugar Maple Association	Poletimber Well	54.5	75	81-110	Cut under permit # 014-00-01. Very hilly with deep sinkholes. Large rocks (some truck sized) throughout the stand.
20	4130 - Aspen	Sapling Well	36.0	25	Immature	Cut under permit #29-91-01. Aspen is doing very well.
21	4130 - Aspen	Poletimber Well	98.3	37	Unspecified	CUT 1979-1982.
22	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	22.3	68	81-110	
24	4134 - Aspen, Spruce/Fir	Sapling Medium	70.0	22	Immature	Cut in 1995 under permit # 12-90-01. Aspen regeneration is patchy, with lots of conifer clumps. The conifers are primarily a mix of fir, spruce, and jack pine.
25	4130 - Aspen	Sapling Well	25.3	4	Immature	Stand harvested by LaFleur summer of 2013 under contract # 003-10-01.
26	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	113.9	75	81-110	Scattered white pine, white birch. Retain as riparian management zone.
27	4133 - Aspen, Mixed Pine	Poletimber Well	6.1	92	51-80	Buffer strip along south edge of Crooked Lake. Stand is quite variable with a mix of aspen, fir, white spruce, white birch and red maple. Retain as a riparian management zone.
28	4133 - Aspen, Mixed Pine	Sapling Well	132.7	15	Immature	Cut under permit # 015-00-01. Stand is composed of young aspen and fir regeneration under scattered large white pine sawtimber. There are occasional pockets of fair white pine regeneration.
29	4119 - Mixed Northern Hardwoods	Poletimber Well	4.1	80	111-140	Small 5 acre patch of hardwoods, hemlock, cedar and yellow birch. Originally contained fir but most of it is dead and down. Section corner is located in the road.
34	4136 - Aspen, Mixed Conifer	Sapling Well	81.7	26	Immature	
35	42200 - Natural White Pine	Sawtimber Well	58.4	85	141-170	
36	4133 - Aspen, Mixed Pine	Sapling Well	8.4	4	Immature	Stand harvested by LaFleur summer of 2013 under contract # 003-10-01. Red Pine was retained but has been killed by a large diplodia outbreak in the adjacent stand.
37	4136 - Aspen, Mixed Conifer	Sapling Well	34.8	30	Immature	
39	4110 - Sugar Maple Association	Poletimber Well	3.0	80	111-140	Small hardwood stand of almost pure sugar maple.

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Gwinn Mgt. Unit

Report 7 – Forested Stands

Compartment: 36
Year of Entry: 2020

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
40	4111 - S.Maple, Hard Mast Association	Poletimber Well	17.4	75	81-110	Fairly hilly. The Bass Lake Motorcycle Trail runs through the north part of the stand. All red oak will be retained as will a few large aspen and any conifers. Stand harvested by K & K under contract # 002-11-01.
48	4130 - Aspen	Sapling Well	3.4	4	Immature	Stand harvested by K & K under contract # 002-11-01.
49	4112 - Maple, Beech, Cherry Association	Poletimber Well	5.5	70	111-140	Cut in 2005 under permit # 012-00-01.
50	4110 - Sugar Maple Association	Poletimber Well	3.5	80	111-140	Small hardwood "island" retained for diversity.
51	4130 - Aspen	Sawtimber Well	11.9	45	Unspecified	
53	4130 - Aspen	Poletimber Well	3.3	45	Unspecified	
56	4134 - Aspen, Spruce/Fir	Sapling Well	4.5	38	Unspecified	Cut under permit #16-78-01. This stand is a mix of aspen, fir, and spruce saplings.
58	4112 - Maple, Beech, Cherry Association	Poletimber Well	4.1	80	111-140	Small island of large soft maple and yellow birch with a few fir. Understory is fir seedlings and saplings.
59	4130 - Aspen	Poletimber Well	5.3	55	81-110	Aspen stand along the edge of an opening.
416	42330 - Upland Fir	Poletimber Well	25.9	40	81-110	



Stand	Cover Type	Acres	Managed Site	General Comments:
7	500 - Water	4.5	No	Pond in the bottom of a kettle hole.
8	6224 - Treed Bog	8.4	No	Riparian zone bog area around the small pond.
23	6229 - Mixed lowland shrub	33.7	No	Tag alder and willow along Poplar Brook.
32	6225 - Bog	1.2	No	Small bog
33	310 - Herbaceous Openland	46.9		Cut under permit #016-00-01 by Lafleur. Getting some red and white pine regen where the soil was disturbed. 2015: Majority of stand harvested as "Diplodia Pine", due to infestation. Harvesting completed June-July, 2014. Stand was trenched and sprayed in summer of 2017. see ftp for cost.
44	6225 - Bog	2.7	No	Bog
55	6225 - Bog	1.2	No	Small bog
57	710 - Sand, Soil	0.8	No	Gravel pit.
60	330 - Low-Density Trees	1.6	Yes	
62	6220 - Alder/willow	27.4	No	
63	330 - Low-Density Trees	35.4		Treated summer of 2012 by K & K Logging under contract # 013-10-01. Site has failed to come back to aspen it should be sprayed and planted to red pine.
400	330 - Low-Density Trees	8.9	Yes	
401	330 - Low-Density Trees	1.7	Yes	
403	330 - Low-Density Trees	3.4	Yes	
404	330 - Low-Density Trees	3.6	Yes	
406	330 - Low-Density Trees	23.5	Yes	
410	3302 - Low Density Conifer Trees	1.4	Yes	



Stand	Cover Type	Acres	Managed Site	General Comments:
412	330 - Low-Density Trees	1.6	No	
413	330 - Low-Density Trees	4.1	Yes	Roller chopped FEB. of 1998
415	330 - Low-Density Trees	7.2	Yes	Roller chopped FEB. 1998