



Compartment Review Presentation

Traverse City Forest Management Unit

Compartment 61021

Entry Year 2022

Acreage: 1,469

County Benzie

Management Area: Benzie Outwash

Revision Date: 2020-07-27

Stand Examiner: Craig Allen

Legal Description:

T25N-R13W; sections 3, 10, 15
Colfax Township of Benzie County, Michigan

Identified Planning Goals:

Compartment 21 is a part of the Benzie Outwash management area (MA). Vegetation management in this MA will provide forest products; maintain or enhance wildlife habitat; protect areas of unique character, including the Betsie River which is a designated natural river; and threatened, endangered and special concern species and provide for forest-based recreational uses and Native American non-commercial uses of forest products. Timber management for the next 10 years includes improving the age-class distribution of aspen and red pine. Northern hardwoods management includes continued selective or regeneration harvesting of northern hardwoods to achieve an uneven age-class structure or improve timber quality. Wildlife management objectives include increasing the structural complexity of northern hardwood communities for interior forest species and perpetuating early-successional communities for species adapted to young forests. Expected trends in this 10-year planning period are increased recreational pressure on recreational trails and introduced insect and disease concerns, especially emerald ash borer and beech bark disease.

Soil and topography:

The terrain is mostly level, particularly in section 15. The soils in the area are mostly Deer Park fine sands, Kalkaska-Rubicon association with Roscommon- Au Gres-Croswell association in the lowland areas.

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

Compartment 21 is part of a large contiguous block of State land ownership around the Grass Lake flooding and Betsie River system. There are some large blocks of private ownership within the compartment. Most of this private land is undeveloped, although there are a few scattered year-round houses and seasonal cabins mainly fronting or near the Betsie River. There are no paved roads within the compartment; however, Reynolds road is heavily traveled as a seasonal County gravel road.

Unique Natural Features:

The Betsie River, flowing through the middle of the compartment. The Betsie River system is a Michigan Natural River. The designation begins at the Grass Lake Dam, then extending downstream to its mouth at Betsie Lake in Frankfort and includes all tributaries.

Archeological, Historical, and Cultural Features:

Early Native Americans would commonly establish settlements, camps and trails along the River/ creek corridors. There are also a few old homestead sites within or near the compartment. There are old railroad grades within or near the compartment that were used during the original logging operations in this area and used for various transportation reasons connecting communities around the turn of the 20th century.

Special Management Designations or Considerations:

All proposed land management activities near the Betsie River should reference the Betsie River Natural River Plan for guidance and consideration.

Watershed and Fisheries Considerations:

This compartment contains portions of the Betsie River near the Grass Lake Dam. Reasonable buffers (as outlined in Water Quality Management Practices on Forest Land) and restrictions should be adhered to around all streams in this compartment. The Betsie River and its tributaries in this areas are cool/warm water streams; existing buffers appear to be appropriate for the proposed treatments. (Comments by Heather Hettinger, DNR Fisheries Management Biologist).

Wildlife Habitat Considerations:

This compartment falls onto two different glacial formations, or land type associations (LTA). State lands in sections 3 and 10 are part of a broad, flat outwash plain with excessively drained sandy soils. These upland areas should continue to be managed for a variety of forest age classes, successional stages, and patch sizes, as well as grass/shrub openings,

consistent with the fire-driven dynamics that historically shaped vegetation on this LTA. Where harvesting is to occur in these types, we should maintain within stand structural diversity by retaining various leave trees (particularly mast producers), snags, and down logs. Tops should be left unchipped and scattered around the sale area, preferably in piles for wildlife cover. The hilly landscape in the northwest corner of section 3 should be managed for uneven-aged northern hardwoods. Several openings need treatment, including warm season grass/forb maintenance and possibly some planting of native fruiting shrubs. As red pine plantations approach final harvest, conversion of some stands to more natural mixes of forest vegetation should be considered. Also, incorporating small (2-5 acre) islands that are left relatively un-thinned within mature pine stands would provide winter roosting cover for turkeys. There are several wetland inclusions within this dry outwash plain that support lowland tree and shrub communities. Such stands could be cut in small patches but may not regenerate well in wet periods. Aside from some small, periodic patch cuts, these low areas should mostly be allowed to succeed to uneven-aged red maple and balsam fir dominated stands.

State lands in section 15 are part of the Little Betsie GEMS (Grouse Enhanced Management System). This section of State land is part of a poorly drained, flat outwash plain. This swamp complex does include scattered dry sandy ridges with upland aspen communities. These upland aspen stands should be included into the cutting plans of the GEMS site if they can be commercially accessed. Non-commercial cuts should be considered if commercial access is unattainable. Small habitat cuts near (but >50' from) the Betsie River may enhance habitat conditions for riparian associates requiring young deciduous habitat. Parts of the lowland deciduous forest in section 15 (and in section 03) has been treated in the past with mediocre results. Habitat cuts here should be small and carefully designed to optimize regeneration and to mimic naturally occurring blowdown pockets. (Comments by Steve Griffith, DNR Wildlife Biologist).

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium. Glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift is the Devonian Ellsworth Shale. There is no current economic use for the Ellsworth Shale. The nearest gravel pit is within two miles to the west in the SW of Section 8. Gravel potential in the compartment is considered good. This area is located northwest of the Antrim Shale gas play. There are no current leases for oil and gas development, but the Antrim Shale appears to have potential. This area is just north of the Niagaran reef trend, but potential is limited. A "deep" Prairie du Chien Field is located in section 24, but production was minor (< 100,000 mcf

Vehicle Access:

There are many gravel and seasonal county roads throughout the compartment within this area offering good access to State lands. There are also many forest "2-track" state forest roads in various areas of the compartment that are in good condition and are used for public and DNR land management accessibility.

Survey Needs:

There are no known survey needs at this time.

Recreational Facilities and Opportunities:

The Platte River Snowmobile trail travels through the entire length of this compartment. It travels on and off seasonal county roads. Other popular recreational activities enjoyed on these lands include, hiking, biking, hunting, fishing, trapping, kayaking, orv riding, mushroom hunting and dispersed camping.

Fire Protection:

DNR Wildfire Protection is accomplished primarily out of the Traverse City office. Access in this compartment is good. There are scattered residences within this compartment, but urban interface issues are not too much of a concern. Mesic Cover types in this area do not normally support large catastrophic fires. Volunteer fire departments in the area also assist in wildfire response.

Additional Compartment Information:

The following reports from the Inventory are attached:

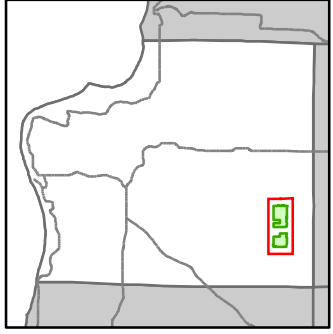
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

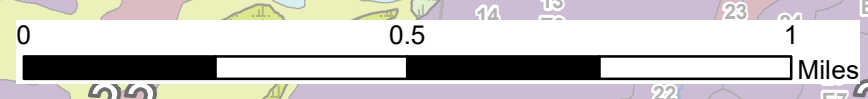
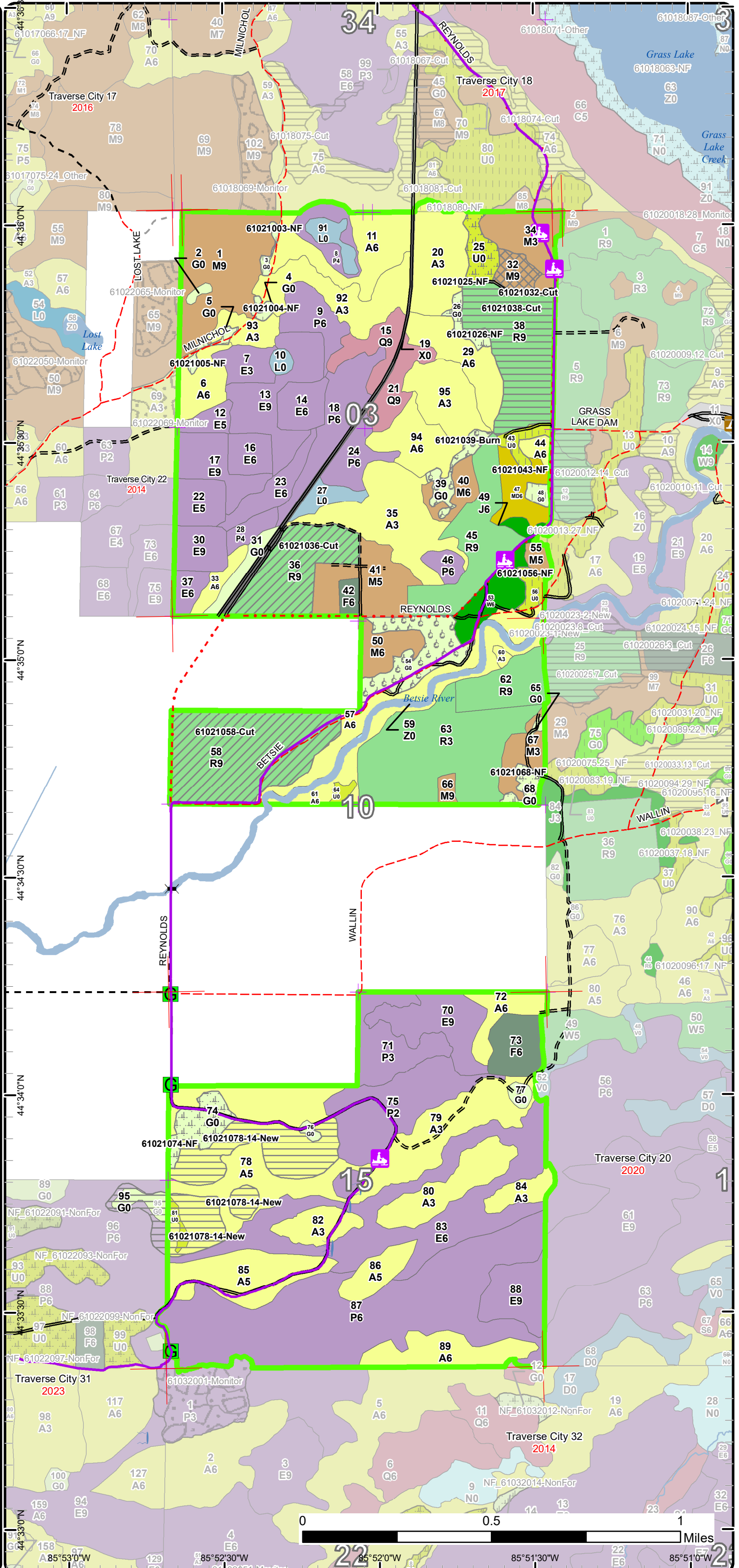
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

Compartment: 21
 T25N, R13W, Sec. 3, 10, 15
 County: Benzie
 Unit: Traverse City
 Mgmt Area: Benzie Outwash
 YOE: 2022
 Acres: 1468.7 GIS Calculated
 Examiner: Craig Allen
 Map Revised: 1/27/2021
 Map Phase: Post-Review



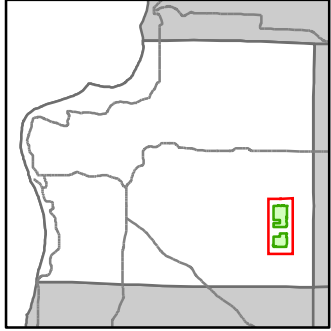
- Miris Corners
- + Remonumented Section Corners
- Counties
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State / County - Paved Road
- Federal / State - Dirt / Gravel Road
- County - Gravel Road
- County - Dirt Road (Seasonal)
- Private - Dirt / Gravel Road
- Snowmobile Trails
- Designated Snowmobile Trails
- Lake/Pond
- Perennial River
- Lakes and Rivers
- G Gate
- Bridges
- Culvert
- Compartment Boundary
- Other Treatment - See Comments
- Selection (Group, Single Tree)
- Clearcut (w/Reserves)
- Prescribed Burn
- Thinning (Crown, Low, Systematic)
- Opening Maintenance
- 411 - Northern Hardwood
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub



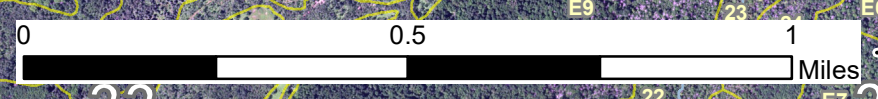
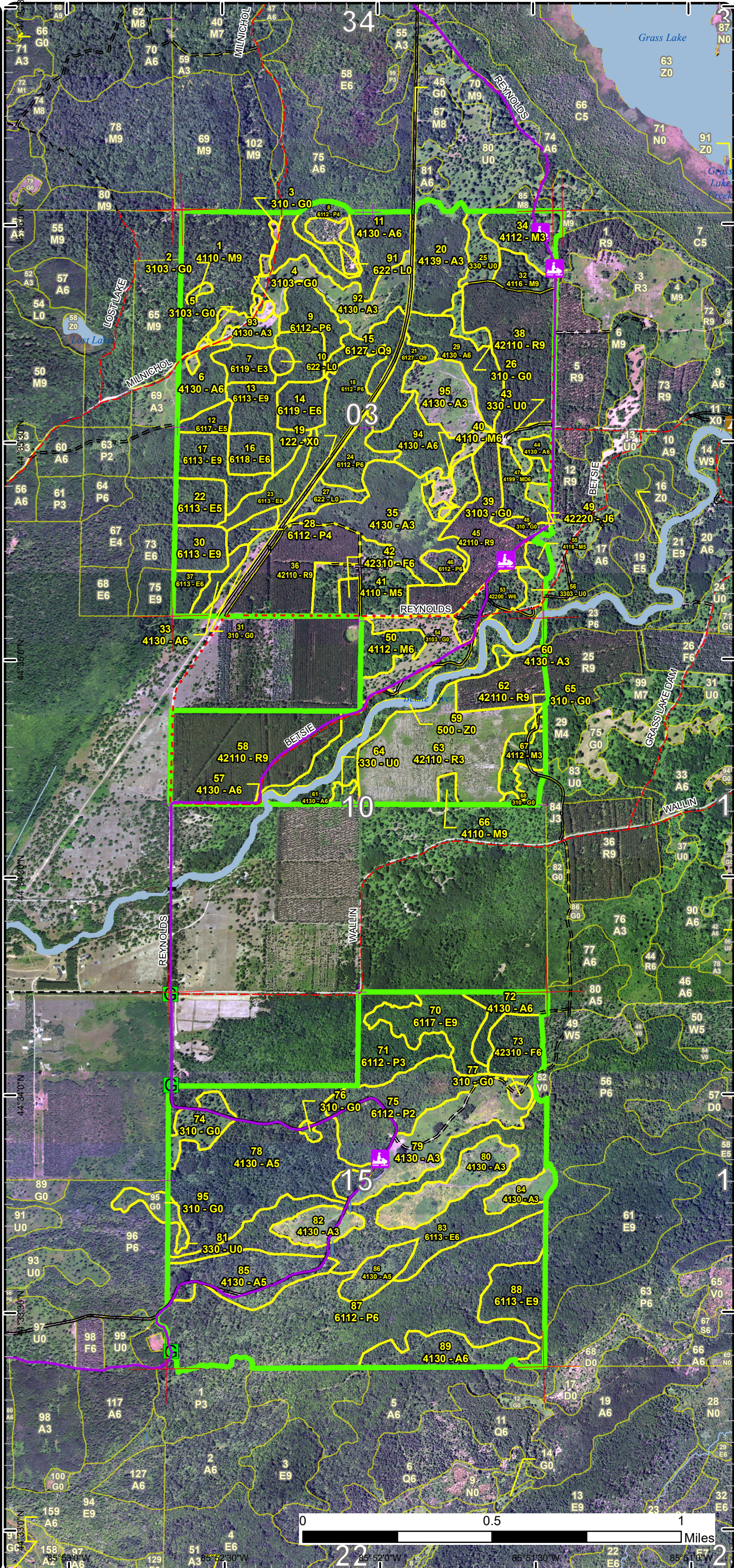
0 0.5 1 Miles

Stand Boundary Map

Compartment: 21
 T25N, R13W, Sec. 3, 10, 15
 County: Benzie
 Unit: Traverse City
 Mgmt Area: Benzie Outwash
 YOE: 2022
 Acres: 1468.7 GIS Calculated
 Examiner: Craig Allen
 Map Revised: 1/27/2021
 Map Phase: Post-Review



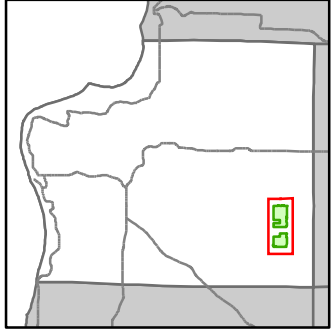
- Miris Corners
- + Remonumented Section Corners
- Counties
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State / County - Paved Road
- Federal / State - Dirt / Gravel Road
- County - Gravel Road
- County - Dirt Road (Seasonal)
- Private - Dirt / Gravel Road
- Snowmobile Trails
- Designated Snowmobile Trails
- Lake/Pond
- Perennial River
- Lakes and Rivers
- G Gate
- Bridges
- Culvert
- Compartment Boundary
- Stand Boundaries
- 411 - Northern Hardwood
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub



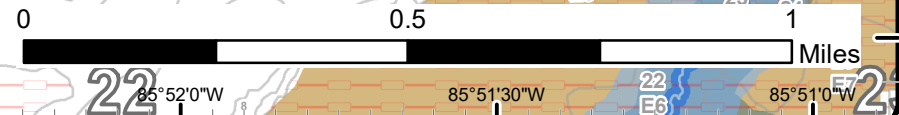
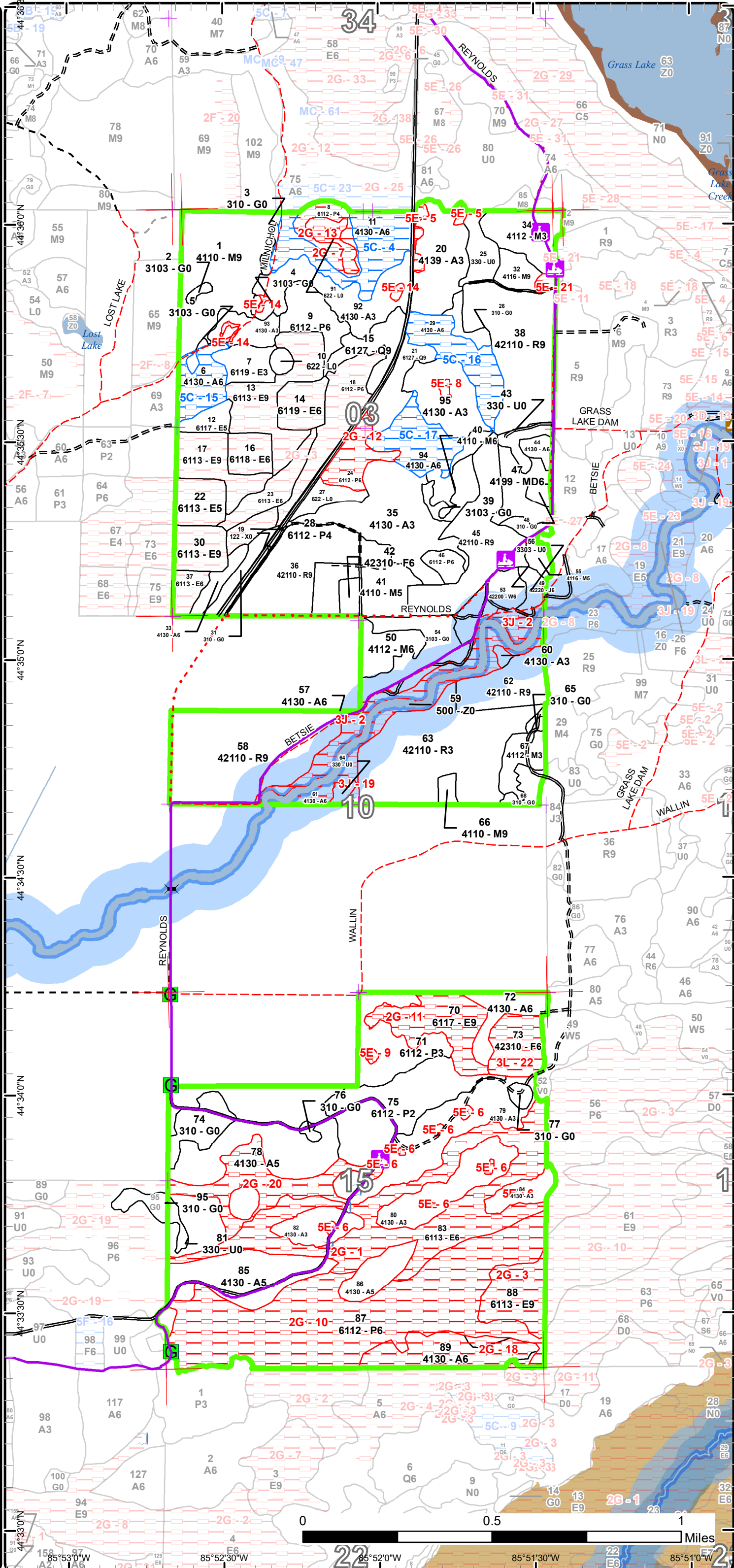
22 23 24
 85°52'30"W 85°51'30"W 85°50'30"W
 44°33'00"N 44°34'00"N 44°35'00"N

Special Conservation Areas

Compartment: 21
 T25N, R13W, Sec. 3, 10, 15
 County: Benzie
 Unit: Traverse City
 Mgmt Area: Benzie Outwash
 YOE: 2022
 Acres: 1468.7 GIS Calculated
 Examiner: Craig Allen
 Map Revised: 1/27/2021
 Map Phase: Post-Review



- Miris Corners
- + Remonumented Section Corners
- Counties
- 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
- Snowmobile Trails
- Designated Snowmobile Trails
- Lake/Pond
- Perennial River
- Lakes and Rivers
- G Gate
- Bridges
- Culvert
- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2G: Too wet (sensitive soils, does not include access issues)
- 3J: Water quality / BMPs (stream, river, or lake)
- 3L: Other wildlife concerns
- 5E: Long-Term Retention
- Stand Boundaries
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Forest Habitat Core Interior
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer
- Wildlife Management Areas



Report 1 – Total Acres by Cover Type and Age Class



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	123	62	0	8	158	73	0	37	0	0	0	0	0	0	0	0	0	461
Herbaceous Openland	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63
Jack Pine	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Low-Density Trees	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Lowland Aspen/Balsam Poplar	0	21	0	0	13	162	40	8	0	0	0	0	0	0	0	0	0	0	243
Lowland Conifers	0	0	0	0	0	0	0	21	0	0	0	0	0	0	0	0	0	0	21
Lowland Deciduous	0	0	0	0	58	71	0	73	0	17	0	0	0	0	0	0	0	0	219
Lowland Shrub	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Mixed Upland Deciduous	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	12
Northern Hardwood	0	0	0	0	68	0	0	0	2	8	42	0	0	0	0	0	0	0	120
Red Pine	0	61	0	0	0	0	0	31	150	0	0	0	0	0	0	0	0	0	242
Upland Spruce/Fir	0	0	0	0	0	0	14	3	0	0	0	0	0	0	0	0	0	0	17
Urban	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Water	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
White Pine	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Total	117	205	62	0	164	403	127	136	189	25	42	0	0	0	0	0	0	0	1469



Report 2 – Treatment Summary

Traverse City Mgt. Unit
Year of Entry: 2022

Acres of Harvest

Compartment 21
Total Compartment Acres: 1,469

Commercial Harvest - 138
Harvests with Site Condition - 0
Next Step Harvest - 0
Habitat Cut - 46

Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen	46	0	0	0	0	0	0	0	0	46
Northern Hardwood	0	6	0	0	0	0	0	0	0	6
Red Pine	42	0	0	0	0	90	0	0	0	132
Total	88	6	0	0	0	90	0	0	0	184

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	184	0	0	0	26	0	0	0	42	252
Next Step	0	42	42	0	0	42	137	0	26	290
Total	184	42	42	0	26	42	137	0	68	542



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	Habitat Cut
----------------	-------	-----------------	--------------	-----------	----------	----------------	------------------	----------------------	---------------	-------------

Proposed Treatments:

3	61021003-NF	1.4	310 - Herbaceous Openland	Nonstocked	Unspecified	NonForestMgt	Herbaceous/Crop /Grass Planting	3105 - Mixed Upland Herbaceous		No
<p><u>Prescription Specs:</u> Work around any beneficial vegetation (raspberry patch, mast bearing shrub) to maintain the wildlife planting in an appropriate herbaceous species suited to site and soil conditions. Maintain as needed with mowing, reseeding native grasses/forbs or Forest Certification approved forage, fertilizing, burning, or removal of woody encroachment and invasives. May want to plant some mast producing trees/shrubs and create brush piles for cover.</p> <p><u>Next Step Treatments:</u></p> <p><u>Acceptable Regen:</u></p> <p><u>Other Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2021</p>										
4	61021004-NF	1.4	3103 - Rubus-Fern	Nonstocked	Unspecified	NonForestMgt	Herbaceous/Crop /Grass Planting	3105 - Mixed Upland Herbaceous		No
<p><u>Prescription Specs:</u> Work around any beneficial vegetation (raspberry patch, mast bearing shrub) to maintain the wildlife planting in an appropriate herbaceous species suited to site and soil conditions. Maintain as needed with mowing, reseeding native grasses/forbs or Forest Certification approved forage, fertilizing, burning, or removal of woody encroachment and invasives. May want to plant some mast producing trees/shrubs and create brush piles for cover.</p> <p><u>Next Step Treatments:</u></p> <p><u>Acceptable Regen:</u></p> <p><u>Other Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2021</p>										
5	61021005-NF	2.0	3103 - Rubus-Fern	Nonstocked	Unspecified	NonForestMgt	Herbaceous/Crop /Grass Planting	3105 - Mixed Upland Herbaceous		No
<p><u>Prescription Specs:</u> Work around any beneficial vegetation (raspberry patch, mast bearing shrub) to maintain the wildlife planting in an appropriate herbaceous species suited to site and soil conditions. Maintain as needed with mowing, reseeding native grasses/forbs or Forest Certification approved forage, fertilizing, burning, or removal of woody encroachment and invasives. May want to plant some mast producing trees/shrubs and create brush piles for cover.</p> <p><u>Next Step Treatments:</u></p> <p><u>Acceptable Regen:</u></p> <p><u>Other Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2021</p>										



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	Habitat Cut
25 61021025-NF	7.9	330 - Low-Density Trees	Nonstocked		Unspec ified	NonForestMgt	Fruit Tree/Shrub Planting	3204 - Mast Producing Shrub		No
<p><u>Prescription</u> Selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. May need to fertilize plantings and protect with wire cages or tubex.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> <u>Treatments:</u></p> <p><u>Acceptable</u> <u>Regen:</u></p> <p><u>Other</u> May want/need to plant herbaceous species for wildlife forage needs. Consider an appropriate native species, but don't rule out pasture mix (i.e. alfalfa/clover). Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.</p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2021</p>										
26 61021026-NF	3.7	310 - Herbaceous Openland	Nonstocked		Unspec ified	NonForestMgt	Fruit Tree/Shrub Planting	3204 - Mast Producing Shrub		No
<p><u>Prescription</u> Selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. May need to fertilize plantings and protect with wire cages or tubex.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> <u>Treatments:</u></p> <p><u>Acceptable</u> <u>Regen:</u></p> <p><u>Other</u> May want/need to plant herbaceous species for wildlife forage needs. Consider an appropriate native species, but don't rule out pasture mix (i.e. alfalfa/clover). Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.</p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2021</p>										
32 61021032-Cut	6.3	4116 - Mixed N. Hardwood - Aspen	Sawtimber Well	86	51-80	Harvest	Group Selection	4116 - Mixed N. Hardwood - Aspen	Two-Aged	No
<p><u>Prescription</u> Harvest to regen and expand aspen component. Cut all aspen and select cut all other hardwood species leaving better form/health individuals as species diversity within stand. Leave all pine. Leave small hill area near road out of the sale boundary as long-term retention. Add drumming spec.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory) <u>Treatments:</u></p> <p><u>Acceptable</u> aspen, maple, cherry, white pine, <u>Regen:</u></p> <p><u>Other</u> <u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2021</p>										



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	Habitat Cut
36 61021036-Cut	30.9	42110 - Planted Red Pine	Sawtimber Well	65	171-200	Harvest	Crown Thinning	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Thin stand by select marking individual trees to harvest approximately 1/3 of trees. Primarily focus on marking poor form, suppressed, defect trees then mark others allowing for approximately 1/3 of volume removal with even spacing throughout plantation as much as possible</p> <p><u>Specs:</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable</u></p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2021</p>										
38 61021038-Cut	42.3	42110 - Planted Red Pine	Sawtimber Well	72	141-170	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Clearcut and replant red pine plantation. Site prep may be necessary prior to replant.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> SitePrep, Trenching; Pesticide, Skidder - Site Prep; Planting, Replant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> red pine</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2021</p>										
39 61021039-Burn	6.1	3103 - Rubus-Fern	Nonstocked		Unspecified	Burn	Opening	3105 - Mixed Upland Herbaceous		No
<p><u>Prescription</u> Burn on a rotational basis. The goal of prescribed burning is to restore and/or maintain a grassland/barrens ecosystem. The timing and frequency of the burns will be based on current needs of restoration such as reducing woody encroachment or promoting grasses versus forbs. Remove exotics as needed by herbiciding or other methods. Maintain as needed with mowing, seeding of native grasses and forbs, planting native mast bearing shrubs or trees, burning, or removal of woody encroachment.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> NonForestMgt, Other - Specify</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u></p> <p><u>Regen:</u></p> <p><u>Other</u> Stand objective is a barrens type community. Brush hog around select leave trees and/or patches but terrain is pretty bumpy. If unable to brush hog, selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Maintain pockets of thick stem density such as aspen or clonal shrubs for thickets of cover/browse. Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.</p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2021</p>										



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	Habitat Cut
43 61021043-NF	4.8	330 - Low-Density Trees	Nonstocked		Unspecified	NonForestMgt	Herbaceous/Crop /Grass Planting	3105 - Mixed Upland Herbaceous		No
<p><u>Prescription Specs:</u> Stand objective is a barrens type community. Brush hog around select leave trees and/or patches but terrain is pretty bumpy. If unable to brush hog, selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Maintain pockets of thick stem density such as aspen or clonal shrubs for thickets of cover/browse. Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.</p> <p><u>Next Step Treatments:</u></p> <p><u>Acceptable Regen:</u></p> <p><u>Other Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2021</p>										
48 61021048-NF	2.1	310 - Herbaceous Openland	Nonstocked		Unspecified	NonForestMgt	Herbaceous/Crop /Grass Planting	3105 - Mixed Upland Herbaceous		No
<p><u>Prescription Specs:</u> Stand objective is a barrens type community. Brush hog around select leave trees and/or patches but terrain is pretty bumpy. If unable to brush hog, selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Maintain pockets of thick stem density such as aspen or clonal shrubs for thickets of cover/browse. Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.</p> <p><u>Next Step Treatments:</u></p> <p><u>Acceptable Regen:</u></p> <p><u>Other Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2021</p>										
54 61021054-Burn	19.9	3103 - Rubus-Fern	Nonstocked		Unspecified	Burn	Opening	3105 - Mixed Upland Herbaceous		No
<p><u>Prescription Specs:</u> Burn on a rotational basis. The goal of prescribed burning is to restore and/or maintain a grassland/barrens ecosystem. The timing and frequency of the burns will be based on current needs of restoration such as reducing woody encroachment or promoting grasses versus forbs. Remove exotics as needed by herbiciding or other methods. Maintain as needed with mowing, seeding of native grasses and forbs, planting native mast bearing shrubs or trees, burning, or removal of woody encroachment.</p> <p><u>Next Step Treatments:</u> NonForestMgt, Other - Specify</p> <p><u>Acceptable Regen:</u></p> <p><u>Other Comment:</u> Stand objective is a barrens type community. Brush hog around select leave trees and/or patches but terrain is pretty bumpy. If unable to brush hog, selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Maintain pockets of thick stem density such as aspen or clonal shrubs for thickets of cover/browse. Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2021</p>										



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	Habitat Cut
56 61021056-NF	4.1	3303 - Mixed Low Density Trees	Nonstocked		Unspec ified	NonForestMgt	Herbaceous/Crop /Grass Planting	3105 - Mixed Upland Herbaceous		No
<p><u>Prescription</u> Stand objective is a barrens type community. Brush hog around select leave trees and/or patches but terrain is pretty bumpy. If unable to brush hog, selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Maintain pockets of thick stem density such as aspen or clonal shrubs for thickets of cover/browse. Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> <u>Treatments:</u></p> <p><u>Acceptable</u> <u>Regen:</u></p> <p><u>Other</u> Use annual forage planting as site prep for planting. <u>Comment:</u></p> <p><u>Site Condition</u> <u>Proposed Start Date:</u> 10/1 /2021</p>										
58 61021058-Cut	58.7	42110 - Planted Red Pine	Sawtimber Well	72	171-200	Harvest	Crown Thinning	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Thin stand by select marking individual trees to harvest approximately 1/3 of trees. Primarily focus on marking poor form, suppressed, defect trees then mark others allowing for approximately 1/3 of volume removal with even spacing throughout plantation as much as possible</p> <p><u>Specs:</u></p> <p><u>Next Step</u> <u>Treatments:</u></p> <p><u>Acceptable</u> <u>Regen:</u></p> <p><u>Other</u> <u>Comment:</u></p> <p><u>Site Condition</u> <u>Proposed Start Date:</u> 10/1 /2021</p>										
68 61021068-NF	4.6	310 - Herbaceous Openland	Nonstocked	0	Unspec ified	NonForestMgt	Fruit Tree/Shrub Planting	3204 - Mast Producing Shrub		No
<p><u>Prescription</u> Selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. May need to fertilize plantings and protect with wire cages or tubex.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> <u>Treatments:</u></p> <p><u>Acceptable</u> <u>Regen:</u></p> <p><u>Other</u> May want/need to plant herbaceous species for wildlife forage needs. Consider an appropriate native species, but don't rule out pasture mix <u>Comment:</u> (i.e. alfalfa/clover). Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.</p> <p><u>Site Condition</u> <u>Proposed Start Date:</u> 10/1 /2021</p>										



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	Habitat Cut
74 61021074-NF	11.1	310 - Herbaceous Openland	Nonstocked		Unspecified	NonForestMgt	Fruit Tree/Shrub Planting	3204 - Mast Producing Shrub		No
<p><u>Prescription</u> Selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. May need to fertilize plantings and protect with wire cages or tubex.</p> <p><u>Specs:</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u></p> <p><u>Other Comment:</u> May want/need to plant herbaceous species for wildlife forage needs. Consider an appropriate native species, but don't rule out pasture mix (i.e. alfalfa/clover). Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2021</p>										
78 61021078-14-New	46.0	4130 - Aspen	Poletimber Medium	46	Unspecified	Harvest	Clearcut with Retention	4139 - Aspen, Mixed Deciduous	Even-Aged	Yes
<p><u>Prescription</u> Clearcut stand to regenerate and expand aspen. Long term retention in drainage areas as outlined by site condition layer. Mark to leave any unique large red maple and/or cherry. Also, leave all conifers. Leave any oak that may be present. Add drumming log spec. This harvest will extend slightly into adjacent compartment to the west due to topography.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u> aspen, maple, cherry</p> <p><u>Other Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2021</p>										
95 61022095-Cut	8.4	310 - Herbaceous Openland	Nonstocked			Harvest	Clearcut with Retention	4139 - Aspen, Mixed Deciduous	Even-Aged	No
<p><u>Prescription</u> Clearcut stand to regenerate and expand aspen. Long term retention in drainage areas as outlined by site condition layer. Mark to leave any unique large red maple and/or cherry. Also, leave all conifers. Leave any oak that may be present. Add drumming log spec.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u> aspen, maple, cherry</p> <p><u>Other Comment:</u> This area is being harvested now to go along with adjacent harvest to the east in compartment 21 for access purposes.</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2021</p>										

Total Treatment Acreage Proposed: 261.7

Report 4 – Site Conditions

Traverse City Mgt. Unit

Craig Allen : Examiner

Compartment: 21

Year of Entry: 2022

Availability for Management

Total Acres	Acres Available	Acres Avail With Condition	Acres Not Available	Dominant Site Conditions					
Acres	Available	With Condition	Not Available	5C	2G	3J	3L	5E	
461	298	73	90	Aspen	73	44	37		9
63	63	0	0	Herbaceous Openland					
5	5	0	0	Jack Pine					
21	21	0	0	Low-Density Trees					
244	79	0	165	Lowland Aspen/Balsam Poplar		165			1
21	21	0	0	Lowland Conifers					
219	14	0	205	Lowland Deciduous		205			
13	8	0	5	Lowland Shrub		5			
12	12	0	0	Mixed Upland Deciduous					
120	119	0	2	Northern Hardwood					2
242	242	0	0	Red Pine					
17	3	0	14	Upland Spruce/Fir				14	
9	9	0	0	Urban					
10	10	0	0	Water					
11	11	0	0	White Pine					
1,469	914	73	481	Total Forested Acres	73	420	37	14	11
	62%	5%	33%	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	2G: Too wet (sensitive soils, does not include access issues)	71	Unspecified	Unspecified	Unspecified	Unspecified
Comments: seasonal drainage area							
2	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	20	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Betsie River corridor							

Report 4 – Site Conditions

Traverse City Mgt. Unit

Craig Allen : Examiner

Compartment: 21

Year of Entry: 2022

3	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	17	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	25	Unspecified	Unspecified	Unspecified	Unspecified
Comments: delay cut to stagger age classes in the area....adjacent stands recently cut.							
5	Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	8	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
8	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
9	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Traverse City Mgt. Unit

Craig Allen : Examiner

Compartment: 21

Year of Entry: 2022

10	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	119	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
11	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	22	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
12	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	11	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
13	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
14	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments: retention island within surrounding aspen stand.							
15	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	12	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Stands on 2 sides where harvested in 2014... wait to harvest this stand, along with kitty corner stand 70 in comp22 in order to better stagger aspen age classes in area.							

Report 4 – Site Conditions

Traverse City Mgt. Unit

Craig Allen : Examiner

Compartment: 21

Year of Entry: 2022

16	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	19	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Wait another 10 years to cut to create more staggered age classes with adjacent aspen stand that is only 5 years old (cut 2014). Harvest this stand along with stand 94. Also, thin adjacent stand 21 when these stands are cut.							
17	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	17	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Wait another 10 years to cut to create more staggered age classes with adjacent aspen stands that are 4 years old and 17 years old respectively. Harvest this stand along with stand 29.							
18	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	22	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	Unspecified	Unspecified	Unspecified
Comments:							
19	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	17	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Betsie River corridor							
20	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	24	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
Comments:							
21	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Traverse City Mgt. Unit
Craig Allen : Examiner

Compartment: 21
Year of Entry: 2022

22	Unavailable	3L: Other wildlife concerns	14	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.
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet. To view specific Zoning Districts and Vegetative Buffers for each Natural River see the table located on the I:\Documentation\GDSE data folder.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																													
1	4110 - Sugar Maple Association	Sawtimber Well	41.9	91	81-110	N/A																																														
		<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Sugar Maple</td> <td>80</td> <td>Log/Pole</td> <td>12</td> <td>91</td> </tr> <tr> <td>Red Maple</td> <td>3</td> <td>Log/Pole</td> <td>12</td> <td></td> </tr> <tr> <td>Basswood</td> <td>14</td> <td>Log/Pole</td> <td>12</td> <td></td> </tr> <tr> <td>Beech</td> <td>3</td> <td>Log/Pole</td> <td>12</td> <td></td> </tr> </tbody> </table>	Canopy Species	% Cover	Size Class	DBH	Age	Sugar Maple	80	Log/Pole	12	91	Red Maple	3	Log/Pole	12		Basswood	14	Log/Pole	12		Beech	3	Log/Pole	12				<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Sugar Maple</td> <td>Medium</td> <td>Variable</td> <td>Pole</td> </tr> <tr> <td>Beech</td> <td>Medium</td> <td>Variable</td> <td>Sapling</td> </tr> <tr> <td>Beech</td> <td>Medium</td> <td>Variable</td> <td>Pole</td> </tr> <tr> <td>Ironwood</td> <td>Low</td> <td>< 5 feet</td> <td>Sapling</td> </tr> </tbody> </table>	Sub-Canopy Species	Density	Avg. Height	Size	Sugar Maple	Medium	Variable	Pole	Beech	Medium	Variable	Sapling	Beech	Medium	Variable	Pole	Ironwood	Low	< 5 feet	Sapling		
Canopy Species	% Cover	Size Class	DBH	Age																																																
Sugar Maple	80	Log/Pole	12	91																																																
Red Maple	3	Log/Pole	12																																																	
Basswood	14	Log/Pole	12																																																	
Beech	3	Log/Pole	12																																																	
Sub-Canopy Species	Density	Avg. Height	Size																																																	
Sugar Maple	Medium	Variable	Pole																																																	
Beech	Medium	Variable	Sapling																																																	
Beech	Medium	Variable	Pole																																																	
Ironwood	Low	< 5 feet	Sapling																																																	
2	3103 - Rubus-Fern	Nonstocked	1.2		Unspecified	No	opening was planted with spruce in april 2002 by Wildlife. see FTP W-61-384																																													
3	310 - Herbaceous Openland	Nonstocked	1.4		Unspecified	No																																														
4	3103 - Rubus-Fern	Nonstocked	1.4		Unspecified	Managed Opening																																														
5	3103 - Rubus-Fern	Nonstocked	2.0		Unspecified	Managed Opening																																														
6	4130 - Aspen	Poletimber Well	12.2	55	Unspecified	N/A	also contains some scattered fir.																																													
		<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Red Maple</td> <td>15</td> <td>Pole/Log</td> <td>8</td> <td>55</td> </tr> <tr> <td>Bigtooth Aspen</td> <td>82</td> <td>Pole/Log</td> <td>9</td> <td>55</td> </tr> <tr> <td>Black Cherry</td> <td>3</td> <td>Pole/Log</td> <td>8</td> <td></td> </tr> </tbody> </table>	Canopy Species	% Cover	Size Class	DBH	Age	Red Maple	15	Pole/Log	8	55	Bigtooth Aspen	82	Pole/Log	9	55	Black Cherry	3	Pole/Log	8				<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Red Maple</td> <td>High</td> <td>Variable</td> <td>Sapling</td> </tr> </tbody> </table>	Sub-Canopy Species	Density	Avg. Height	Size	Red Maple	High	Variable	Sapling																			
Canopy Species	% Cover	Size Class	DBH	Age																																																
Red Maple	15	Pole/Log	8	55																																																
Bigtooth Aspen	82	Pole/Log	9	55																																																
Black Cherry	3	Pole/Log	8																																																	
Sub-Canopy Species	Density	Avg. Height	Size																																																	
Red Maple	High	Variable	Sapling																																																	
7	6119 - Mixed Lowland Deciduous Forest	Sapling Well	8.4	37	Unspecified	N/A																																														
		<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Red Maple</td> <td>55</td> <td>Sapling/Pole</td> <td>4</td> <td>37</td> </tr> <tr> <td>Paper Birch</td> <td>10</td> <td>Sapling/Pole</td> <td>4</td> <td>37</td> </tr> <tr> <td>Quaking Aspen</td> <td>30</td> <td>Pole/Sapling</td> <td>5</td> <td>37</td> </tr> <tr> <td>Balsam Fir</td> <td>5</td> <td>Sapling/Pole</td> <td>4</td> <td>37</td> </tr> </tbody> </table>	Canopy Species	% Cover	Size Class	DBH	Age	Red Maple	55	Sapling/Pole	4	37	Paper Birch	10	Sapling/Pole	4	37	Quaking Aspen	30	Pole/Sapling	5	37	Balsam Fir	5	Sapling/Pole	4	37			<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>American Elm</td> <td>Low</td> <td>Variable</td> <td>Sapling</td> </tr> <tr> <td>Red Maple</td> <td>High</td> <td>Variable</td> <td>Sapling</td> </tr> <tr> <td>Tag Alder</td> <td>Low</td> <td>< 5 feet</td> <td>Tall Shrub</td> </tr> </tbody> </table>	Sub-Canopy Species	Density	Avg. Height	Size	American Elm	Low	Variable	Sapling	Red Maple	High	Variable	Sapling	Tag Alder	Low	< 5 feet	Tall Shrub						
Canopy Species	% Cover	Size Class	DBH	Age																																																
Red Maple	55	Sapling/Pole	4	37																																																
Paper Birch	10	Sapling/Pole	4	37																																																
Quaking Aspen	30	Pole/Sapling	5	37																																																
Balsam Fir	5	Sapling/Pole	4	37																																																
Sub-Canopy Species	Density	Avg. Height	Size																																																	
American Elm	Low	Variable	Sapling																																																	
Red Maple	High	Variable	Sapling																																																	
Tag Alder	Low	< 5 feet	Tall Shrub																																																	
8	6112 - Lowland Aspen	Poletimber Poor	8.4	61	Unspecified	N/A																																														
		<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Quaking Aspen</td> <td>85</td> <td>Pole</td> <td>6</td> <td>61</td> </tr> <tr> <td>Red Maple</td> <td>10</td> <td>Pole/Sapling</td> <td>5</td> <td></td> </tr> <tr> <td>White Pine</td> <td>5</td> <td>XLog/Log</td> <td>18</td> <td></td> </tr> </tbody> </table>	Canopy Species	% Cover	Size Class	DBH	Age	Quaking Aspen	85	Pole	6	61	Red Maple	10	Pole/Sapling	5		White Pine	5	XLog/Log	18				<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>White Pine</td> <td>Medium</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> <tr> <td>White Pine</td> <td>Medium</td> <td>>20 feet</td> <td>Pole</td> </tr> <tr> <td>Alder</td> <td>Medium</td> <td>5 - 10 feet</td> <td>Tall Shrub</td> </tr> <tr> <td>Red Maple</td> <td>Low</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> <tr> <td>Blueberry/Bilberry/Cranberry</td> <td>Medium</td> <td>5 - 10 feet</td> <td>Tall Shrub</td> </tr> </tbody> </table>	Sub-Canopy Species	Density	Avg. Height	Size	White Pine	Medium	5 - 10 feet	Sapling	White Pine	Medium	>20 feet	Pole	Alder	Medium	5 - 10 feet	Tall Shrub	Red Maple	Low	10 - 20 feet	Sapling	Blueberry/Bilberry/Cranberry	Medium	5 - 10 feet	Tall Shrub			
Canopy Species	% Cover	Size Class	DBH	Age																																																
Quaking Aspen	85	Pole	6	61																																																
Red Maple	10	Pole/Sapling	5																																																	
White Pine	5	XLog/Log	18																																																	
Sub-Canopy Species	Density	Avg. Height	Size																																																	
White Pine	Medium	5 - 10 feet	Sapling																																																	
White Pine	Medium	>20 feet	Pole																																																	
Alder	Medium	5 - 10 feet	Tall Shrub																																																	
Red Maple	Low	10 - 20 feet	Sapling																																																	
Blueberry/Bilberry/Cranberry	Medium	5 - 10 feet	Tall Shrub																																																	



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
9	6112 - Lowland Aspen	Poletimber Well	12.5	37	Unspecified	N/A	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	
Red Maple		30	Pole/Sapling	6	37	Red Maple	
Quaking Aspen		50	Pole/Sapling	6	37	Paper Birch	
Balsam Fir		3	Pole/Sapling	6	37	Quaking Aspen	
Paper Birch		3	Pole/Sapling	6			
Bigtooth Aspen		14	Pole/Sapling	6			
10	622 - Lowland Shrub	Nonstocked	2.3		Unspecified	No	
11	4130 - Aspen	Poletimber Well	25.0	55	Unspecified	N/A	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	
Red Maple		20	Pole/Log	8		Red Maple	
Quaking Aspen		67	Pole/Log	8	55		
White Pine		3	Pole/Log	8			
Black Cherry		10	Pole/Log	9			
12	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Medium	5.1	37	Unspecified	N/A	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	
Red Maple		40	Pole/Sapling	5	37	Alder	
Paper Birch		20	Pole/Sapling	5	37		
Quaking Aspen		10	Pole/Sapling	5	37		
Balsam Fir		25	Pole/Sapling	5	37		
Northern White Cedar		5	Pole	7			
13	6113 - Lowland Maple	Sawtimber Well	24.9	61	Unspecified	N/A	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	
Red Maple		100	Log/Pole	12	61	Red Maple	
						Beech	
						Balsam Fir	
14	6119 - Mixed Lowland Deciduous Forest	Poletimber Well	9.9	37	Unspecified	N/A	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	
Red Maple		55	Pole/Sapling	5	37	American Elm	
Paper Birch		10	Sapling/Pole	4		Red Maple	
Quaking Aspen		30	Pole/Sapling	5	37	Tag Alder	
Balsam Fir		5	Sapling/Pole	4	37		



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
15	6127 - Lowland Pine	Sawtimber Well	10.6	61	51-80	N/A	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	
Red Maple		20	Log/Pole	11		Red Maple	
Quaking Aspen		20	Pole	8		Beech	
White Pine		60	Log/Pole	11	61		
						Density	Avg. Height
						High	Variable
						Low	Variable
							Size
							Sapling
							Sapling
16	6118 - Lowland Deciduous with Cedar	Poletimber Well	8.0	33	Unspecified	N/A	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	
Red Maple		65	Pole/Sapling	7	33	Red Maple	
Northern White Cedar		35	Log/Pole	11			
						Density	Avg. Height
						Medium	Variable
							Size
							Sapling
17	6113 - Lowland Maple	Sawtimber Well	15.4	61	Unspecified	N/A	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	
American Elm		3	Pole	6		American Elm	
Red Maple		77	Log/Pole	12	61	Red Maple	
Quaking Aspen		10	Pole/Log	9			
Northern White Cedar		10	Log/Pole	11			
						Density	Avg. Height
						Low	Variable
						Medium	Variable
							Size
							Sapling
							Sapling
18	6112 - Lowland Aspen	Poletimber Well	20.4	55	Unspecified	N/A	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	
Red Maple		29	Pole	8		Red Maple	
Paper Birch		3	Pole	6		Quaking Aspen	
Quaking Aspen		55	Pole	8	55		
Balsam Fir		10	Pole	8			
White Pine		3	Log/Pole	11			
						Density	Avg. Height
						High	Variable
						Low	Variable
							Size
							Sapling
							Sapling
19	122 - Road/Parking Lot	Nonstocked	9.1		Unspecified	No	Old railroad grade.
20	4139 - Aspen, Mixed Deciduous	Sapling Well	24.3	19	Unspecified	N/A	
Canopy Species		% Cover	Size Class	DBH	Age		
Red Maple		30	Sapling	2	19		
Bigtooth Aspen		50	Sapling	2	19		
Black Cherry		20	Sapling	2	19		
21	6127 - Lowland Pine	Sawtimber Well	10.4	61	81-110	N/A	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	
Bigtooth Aspen		10	Pole	9		Red Maple	
White Pine		90	Log/Pole	11	61		
						Density	Avg. Height
						Medium	< 5 feet
							Size
							Sapling



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
22	6113 - Lowland Maple	Poletimber Medium	10.4	33	Unspecified	N/A			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
American Elm		3	Pole/Sapling	5		Red Maple	Medium	Variable	Sapling
Red Maple		79	Pole/Sapling	7	33	Alder	Medium	Variable	Tall Shrub
Paper Birch		3	Pole/Sapling	5					
Northern White Cedar		15	Pole	6					
23	6113 - Lowland Maple	Poletimber Well	10.4	33	Unspecified	N/A			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple		100	Pole	7	33	Red Maple	High	Variable	Sapling
24	6112 - Lowland Aspen	Poletimber Well	10.5	55	Unspecified	N/A			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple		29	Pole	7		Red Maple	High	Variable	Sapling
Paper Birch		3	Pole	7		Quaking Aspen	Low	Variable	Sapling
Quaking Aspen		55	Pole	7	55				
Balsam Fir		10	Pole	7					
White Pine		3	Log/Pole	11					
25	330 - Low-Density Trees	Nonstocked	7.9		Unspecified	No			
26	310 - Herbaceous Openland	Nonstocked	3.7		Unspecified	No			
27	622 - Lowland Shrub	Nonstocked	5.7		Unspecified	No	Wet ground year-round		
28	6112 - Lowland Aspen	Poletimber Poor	5.0	55	Unspecified	N/A			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple		20	Pole	7		Nannyberry	High	Variable	Tall Shrub
Quaking Aspen		80	Pole	7	55				
29	4130 - Aspen	Poletimber Well	18.6	55	Unspecified	N/A			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple		10	Pole	8		Red Maple	High	Variable	Sapling
Quaking Aspen		45	Pole	8	55				
Bigtooth Aspen		25	Pole	8	55				
White Pine		5	Log/Pole	12					
Black Cherry		15	Log/Pole	12					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
30	6113 - Lowland Maple	Sawtimber Well	10.5	61	81-110	N/A			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple		100	Log/Pole	13	61	Red Maple	Medium	Variable	Pole
31	310 - Herbaceous Openland	Nonstocked	5.4		Unspecified	No	with scattered trees		
32	4116 - Mixed N. Hardwood - Aspen	Sawtimber Well	7.8	86	51-80	N/A	Also has a few sugar maple, red pine, and white pine.		
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple		50	Log/Pole	14	86	Red Maple	Low	Variable	Sapling
Quaking Aspen		30	Pole/Log	8					
Black Cherry		20	Log/Pole	12	86				
33	4130 - Aspen	Poletimber Well	5.2	37	Unspecified	N/A			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple		10	Pole	8		Red Maple	High	Variable	Sapling
Quaking Aspen		85	Pole	8	37	Alder	High	Variable	Tall Shrub
Black Cherry		5	Pole	8					
34	4112 - Maple, Beech, Cherry Association	Sapling Well	15.7	37	51-80	N/A			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple		70	Pole/Sapling	5	37	Red Maple	Medium	Variable	Sapling
Bigtooth Aspen		10	Pole/Sapling	5					
Black Cherry		20	Pole/Sapling	5	37				
35	4130 - Aspen	Sapling Well	36.5	19	Unspecified	N/A	wildfire swept through south portion of stand. some resulting mortality and resprouting.		
Canopy Species		% Cover	Size Class	DBH	Age				
Red Maple		10	Sapling	2	19				
Quaking Aspen		50	Sapling	2	19				
Bigtooth Aspen		20	Sapling	2	19				
Black Cherry		20	Sapling	2	19				
36	42110 - Planted Red Pine	Sawtimber Well	30.9	65	171-200	N/A	Thinned in late winter of 2002.		
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Pine		100	Log/Pole	11	65	Beech	Low	< 5 feet	Sapling
37	6113 - Lowland Maple	Poletimber Well	5.6	37	Unspecified	N/A			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple		100	Pole	8	37	Red Maple	Medium	>20 feet	Sapling
						Alder	Low	Variable	Tall Shrub



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																									
38	42110 - Planted Red Pine	Sawtimber Well	42.3	72	141-170	N/A																																										
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Red Maple</td> <td>5</td> <td>Log/Pole</td> <td>14</td> <td></td> </tr> <tr> <td>Red Pine</td> <td>92</td> <td>Log</td> <td>14</td> <td>72</td> </tr> <tr> <td>Black Cherry</td> <td>3</td> <td>Log/Pole</td> <td>13</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Red Maple	5	Log/Pole	14		Red Pine	92	Log	14	72	Black Cherry	3	Log/Pole	13		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Red Maple</td> <td>Full</td> <td>Variable</td> <td>Sapling</td> </tr> <tr> <td>Beech</td> <td>Low</td> <td>Variable</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Red Maple	Full	Variable	Sapling	Beech	Low	Variable	Sapling													
Canopy Species	% Cover	Size Class	DBH	Age																																												
Red Maple	5	Log/Pole	14																																													
Red Pine	92	Log	14	72																																												
Black Cherry	3	Log/Pole	13																																													
Sub-Canopy Species	Density	Avg. Height	Size																																													
Red Maple	Full	Variable	Sapling																																													
Beech	Low	Variable	Sapling																																													
39	3103 - Rubus-Fern	Nonstocked	6.1		Unspecified	Managed Opening	This area had prescribed burn 20??. Also, there was a wildfire that burned most of this stand in the Fall of 2007.																																									
40	4110 - Sugar Maple Association	Poletimber Well	7.3	37	1-50	N/A	wildfire swept through [approximately 2005] majority of stand killing some trees.																																									
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Sugar Maple</td> <td>50</td> <td>Pole/Sapling</td> <td>5</td> <td>37</td> </tr> <tr> <td>Quaking Aspen</td> <td>15</td> <td>Pole/Sapling</td> <td>5</td> <td>37</td> </tr> <tr> <td>Jack Pine</td> <td>5</td> <td>Pole/Sapling</td> <td>5</td> <td></td> </tr> <tr> <td>Black Cherry</td> <td>30</td> <td>Pole/Sapling</td> <td>5</td> <td>37</td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Sugar Maple	50	Pole/Sapling	5	37	Quaking Aspen	15	Pole/Sapling	5	37	Jack Pine	5	Pole/Sapling	5		Black Cherry	30	Pole/Sapling	5	37	<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Sugar Maple</td> <td>Low</td> <td>Variable</td> <td>Sapling</td> </tr> <tr> <td>Black Cherry</td> <td>Low</td> <td>Variable</td> <td>Sapling</td> </tr> <tr> <td>Quaking Aspen</td> <td>Low</td> <td>Variable</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Sugar Maple	Low	Variable	Sapling	Black Cherry	Low	Variable	Sapling	Quaking Aspen	Low	Variable	Sapling				
Canopy Species	% Cover	Size Class	DBH	Age																																												
Sugar Maple	50	Pole/Sapling	5	37																																												
Quaking Aspen	15	Pole/Sapling	5	37																																												
Jack Pine	5	Pole/Sapling	5																																													
Black Cherry	30	Pole/Sapling	5	37																																												
Sub-Canopy Species	Density	Avg. Height	Size																																													
Sugar Maple	Low	Variable	Sapling																																													
Black Cherry	Low	Variable	Sapling																																													
Quaking Aspen	Low	Variable	Sapling																																													
41	4110 - Sugar Maple Association	Poletimber Medium	22.9	37	51-80	N/A																																										
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Sugar Maple</td> <td>44</td> <td>Pole/Sapling</td> <td>5</td> <td>37</td> </tr> <tr> <td>Quaking Aspen</td> <td>13</td> <td>Pole/Sapling</td> <td>5</td> <td>37</td> </tr> <tr> <td>Red Pine</td> <td>3</td> <td>Pole/Sapling</td> <td>5</td> <td></td> </tr> <tr> <td>Jack Pine</td> <td>3</td> <td>Pole/Sapling</td> <td>5</td> <td></td> </tr> <tr> <td>Black Cherry</td> <td>37</td> <td>Pole/Sapling</td> <td>5</td> <td>37</td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Sugar Maple	44	Pole/Sapling	5	37	Quaking Aspen	13	Pole/Sapling	5	37	Red Pine	3	Pole/Sapling	5		Jack Pine	3	Pole/Sapling	5		Black Cherry	37	Pole/Sapling	5	37	<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Sugar Maple</td> <td>High</td> <td>Variable</td> <td>Sapling</td> </tr> <tr> <td>Black Cherry</td> <td>High</td> <td>Variable</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Sugar Maple	High	Variable	Sapling	Black Cherry	High	Variable	Sapling			
Canopy Species	% Cover	Size Class	DBH	Age																																												
Sugar Maple	44	Pole/Sapling	5	37																																												
Quaking Aspen	13	Pole/Sapling	5	37																																												
Red Pine	3	Pole/Sapling	5																																													
Jack Pine	3	Pole/Sapling	5																																													
Black Cherry	37	Pole/Sapling	5	37																																												
Sub-Canopy Species	Density	Avg. Height	Size																																													
Sugar Maple	High	Variable	Sapling																																													
Black Cherry	High	Variable	Sapling																																													
42	42310 - Planted Spruce	Poletimber Well	3.4	62	81-110	N/A																																										
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>White Spruce</td> <td>100</td> <td>Pole</td> <td>8</td> <td>62</td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	White Spruce	100	Pole	8	62																																					
Canopy Species	% Cover	Size Class	DBH	Age																																												
White Spruce	100	Pole	8	62																																												
43	330 - Low-Density Trees	Nonstocked	4.8		Unspecified	No																																										
44	4130 - Aspen	Poletimber Well	3.2	37	Unspecified	N/A																																										
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Red Maple</td> <td>10</td> <td>Pole</td> <td>6</td> <td>37</td> </tr> <tr> <td>Quaking Aspen</td> <td>30</td> <td>Pole</td> <td>6</td> <td>37</td> </tr> <tr> <td>Bigtooth Aspen</td> <td>60</td> <td>Pole</td> <td>6</td> <td>37</td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Red Maple	10	Pole	6	37	Quaking Aspen	30	Pole	6	37	Bigtooth Aspen	60	Pole	6	37	<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Black Cherry</td> <td>High</td> <td>< 5 feet</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Black Cherry	High	< 5 feet	Sapling																	
Canopy Species	% Cover	Size Class	DBH	Age																																												
Red Maple	10	Pole	6	37																																												
Quaking Aspen	30	Pole	6	37																																												
Bigtooth Aspen	60	Pole	6	37																																												
Sub-Canopy Species	Density	Avg. Height	Size																																													
Black Cherry	High	< 5 feet	Sapling																																													
45	42110 - Planted Red Pine	Sawtimber Well	31.9	72	111-140	N/A																																										
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Red Pine</td> <td>100</td> <td>Log</td> <td>14</td> <td>72</td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Red Pine	100	Log	14	72	<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Black Cherry</td> <td>Low</td> <td>< 5 feet</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Black Cherry	Low	< 5 feet	Sapling																											
Canopy Species	% Cover	Size Class	DBH	Age																																												
Red Pine	100	Log	14	72																																												
Sub-Canopy Species	Density	Avg. Height	Size																																													
Black Cherry	Low	< 5 feet	Sapling																																													



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
46	6112 - Lowland Aspen	Poletimber Well	4.4	55	Unspecified	N/A			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple		10	Log/Pole	12		Red Maple	Medium	Variable	Sapling
Quaking Aspen		90	Pole	9	55				
47	4199 - Other Mixed Upland Deciduous	Poletimber Well	11.9	41	81-110	N/A			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple		25	Pole	7	41	Black Cherry	High	< 5 feet	Sapling
Bigtooth Aspen		35	Pole	7	41				
Jack Pine		10	Pole	7					
Black Cherry		30	Pole	6					
48	310 - Herbaceous Openland	Nonstocked	2.2		Unspecified	No			
49	42220 - Natural Jack Pine	Poletimber Well	4.8	37	Unspecified	N/A			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Pine		20	Pole/Sapling	6	37	Red Pine	Low	Variable	Sapling
Jack Pine		80	Pole/Sapling	6	37	Jack Pine	Medium	Variable	Sapling
50	4112 - Maple, Beech, Cherry Association	Poletimber Well	10.0	36	51-80	N/A			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Sugar Maple		40	Pole/Sapling	5	36	Sugar Maple	High	Variable	Sapling
Red Maple		40	Pole/Sapling	5		Red Maple	High	Variable	Sapling
Black Cherry		20	Log/Pole	12					
53	42200 - Natural White Pine	Poletimber Well	11.5	36	81-110	N/A			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple		10	Pole	7		White Pine	High	Variable	Sapling
White Pine		60	Pole	6	36	Jack Pine	Medium	Variable	Sapling
Jack Pine		20	Pole	6		Black Cherry	Low	Variable	Sapling
Black Cherry		10	Pole	7					
54	3103 - Rubus-Fern	Nonstocked	19.9		Unspecified	Managed Opening	A prescribed burn was conducted in this stand in 2008.		
55	4116 - Mixed N. Hardwood - Aspen	Poletimber Medium	3.2	37	51-80	N/A			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen		40	Pole	6	37	Black Cherry	Medium	< 5 feet	Sapling
Black Cherry		60	Pole	6	37				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																	
56	3303 - Mixed Low Density Trees	Nonstocked	4.1		Unspecified	No	Terrain is generally flat and operable.																																	
57	4130 - Aspen	Poletimber Well	20.2	73	Unspecified	N/A																																		
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Red Maple</td> <td>10</td> <td>Log/Pole</td> <td>12</td> <td></td> </tr> <tr> <td>Quaking Aspen</td> <td>40</td> <td>Pole/Log</td> <td>9</td> <td></td> </tr> <tr> <td>Bigtooth Aspen</td> <td>40</td> <td>Pole/Log</td> <td>9</td> <td>73</td> </tr> <tr> <td>Black Cherry</td> <td>10</td> <td>Pole/Log</td> <td>9</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Red Maple	10	Log/Pole	12		Quaking Aspen	40	Pole/Log	9		Bigtooth Aspen	40	Pole/Log	9	73	Black Cherry	10	Pole/Log	9		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Red Maple</td> <td>Medium</td> <td>Variable</td> <td>Sapling</td> </tr> <tr> <td>Black Cherry</td> <td>Medium</td> <td>Variable</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Red Maple	Medium	Variable	Sapling	Black Cherry	Medium	Variable	Sapling
Canopy Species	% Cover	Size Class	DBH	Age																																				
Red Maple	10	Log/Pole	12																																					
Quaking Aspen	40	Pole/Log	9																																					
Bigtooth Aspen	40	Pole/Log	9	73																																				
Black Cherry	10	Pole/Log	9																																					
Sub-Canopy Species	Density	Avg. Height	Size																																					
Red Maple	Medium	Variable	Sapling																																					
Black Cherry	Medium	Variable	Sapling																																					
58	42110 - Planted Red Pine	Sawtimber Well	58.7	72	171-200	N/A																																		
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Red Pine</td> <td>100</td> <td>Log/Pole</td> <td>12</td> <td>72</td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Red Pine	100	Log/Pole	12	72																													
Canopy Species	% Cover	Size Class	DBH	Age																																				
Red Pine	100	Log/Pole	12	72																																				
59	500 - Water	Nonstocked	9.7		Unspecified	No	Betsie River																																	
60	4130 - Aspen	Sapling Well	1.1	19	Unspecified	N/A																																		
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Red Maple</td> <td>20</td> <td>Sapling</td> <td>2</td> <td>19</td> </tr> <tr> <td>Bigtooth Aspen</td> <td>70</td> <td>Sapling</td> <td>2</td> <td>19</td> </tr> <tr> <td>Black Cherry</td> <td>10</td> <td>Sapling</td> <td>2</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Red Maple	20	Sapling	2	19	Bigtooth Aspen	70	Sapling	2	19	Black Cherry	10	Sapling	2																				
Canopy Species	% Cover	Size Class	DBH	Age																																				
Red Maple	20	Sapling	2	19																																				
Bigtooth Aspen	70	Sapling	2	19																																				
Black Cherry	10	Sapling	2																																					
61	4130 - Aspen	Poletimber Well	17.0	73	Unspecified	N/A																																		
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Red Maple</td> <td>15</td> <td>Log/Pole</td> <td>14</td> <td>73</td> </tr> <tr> <td>Quaking Aspen</td> <td>75</td> <td>Pole</td> <td>8</td> <td>73</td> </tr> <tr> <td>Black Cherry</td> <td>10</td> <td>Pole</td> <td>8</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Red Maple	15	Log/Pole	14	73	Quaking Aspen	75	Pole	8	73	Black Cherry	10	Pole	8		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Red Maple</td> <td>Medium</td> <td>Variable</td> <td>Sapling</td> </tr> <tr> <td>Black Cherry</td> <td>Medium</td> <td>Variable</td> <td>Sapling</td> </tr> <tr> <td>Alder</td> <td>Medium</td> <td>Variable</td> <td>Tall Shrub</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Red Maple	Medium	Variable	Sapling	Black Cherry	Medium	Variable	Sapling	Alder	Medium	Variable	Tall Shrub	
Canopy Species	% Cover	Size Class	DBH	Age																																				
Red Maple	15	Log/Pole	14	73																																				
Quaking Aspen	75	Pole	8	73																																				
Black Cherry	10	Pole	8																																					
Sub-Canopy Species	Density	Avg. Height	Size																																					
Red Maple	Medium	Variable	Sapling																																					
Black Cherry	Medium	Variable	Sapling																																					
Alder	Medium	Variable	Tall Shrub																																					
62	42110 - Planted Red Pine	Sawtimber Well	17.3	72	141-170	N/A																																		
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Red Pine</td> <td>100</td> <td>Log/Pole</td> <td>12</td> <td>72</td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Red Pine	100	Log/Pole	12	72																													
Canopy Species	% Cover	Size Class	DBH	Age																																				
Red Pine	100	Log/Pole	12	72																																				
63	42110 - Planted Red Pine	Sapling Well	60.6	9	Immature	N/A																																		
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Red Pine</td> <td>60</td> <td>Sapling</td> <td>2</td> <td>9</td> </tr> <tr> <td>Jack Pine</td> <td>30</td> <td>Sapling</td> <td>2</td> <td></td> </tr> <tr> <td>Black Cherry</td> <td>10</td> <td>Sapling</td> <td>2</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Red Pine	60	Sapling	2	9	Jack Pine	30	Sapling	2		Black Cherry	10	Sapling	2		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Red Pine</td> <td>Low</td> <td>< 5 feet</td> <td>Sapling</td> </tr> <tr> <td>Black Cherry</td> <td>Low</td> <td>< 5 feet</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Red Pine	Low	< 5 feet	Sapling	Black Cherry	Low	< 5 feet	Sapling					
Canopy Species	% Cover	Size Class	DBH	Age																																				
Red Pine	60	Sapling	2	9																																				
Jack Pine	30	Sapling	2																																					
Black Cherry	10	Sapling	2																																					
Sub-Canopy Species	Density	Avg. Height	Size																																					
Red Pine	Low	< 5 feet	Sapling																																					
Black Cherry	Low	< 5 feet	Sapling																																					
64	330 - Low-Density Trees	Nonstocked	1.9		Unspecified	No																																		



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
-------	--------------------	--------------	-------	-----------	----------	--------------	------------------

65	310 - Herbaceous Openland	Nonstocked	1.0		Unspecified	No	frequently used as a logging landing site for adjacent pine stands.
----	---------------------------	------------	-----	--	-------------	----	---

66	4110 - Sugar Maple Association	Sawtimber Well	2.4	76	81-110	N/A	
----	--------------------------------	----------------	-----	----	--------	-----	--

Canopy Species	% Cover	Size Class	DBH	Age
Sugar Maple	20	Log/Pole	13	76
Red Maple	10	Log/Pole	12	
Black Cherry	70	Log/Pole	12	76

Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	Medium	Variable	Sapling
White Ash	Medium	Variable	Sapling

67	4112 - Maple, Beech, Cherry Association	Sapling Well	9.1	37	1-50	N/A	
----	---	--------------	-----	----	------	-----	--

Canopy Species	% Cover	Size Class	DBH	Age
Sugar Maple	40	Sapling/Pole	4	37
Red Maple	49	Sapling/Pole	4	37
Quaking Aspen	5	Sapling/Pole	4	
Jack Pine	3	Sapling/Pole	4	
Black Cherry	3	Sapling/Pole	4	

Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	High	Variable	Sapling

68	310 - Herbaceous Openland	Nonstocked	4.6	0	Unspecified	No	
----	---------------------------	------------	-----	---	-------------	----	--

70	6117 - Lowland Deciduous, Mixed Coniferous	Sawtimber Well	22.2	62	Unspecified	N/A	
----	--	----------------	------	----	-------------	-----	--

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	50	Log/Pole	11	62
Quaking Aspen	20	Pole	8	
Northern White Cedar	10	Log/Pole	10	
Balsam Fir	10	Pole	8	
White Pine	10	Log/Pole	12	

Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	High	Variable	Sapling
Balsam Fir	High	>20 feet	Sapling
Northern White Cedar	Low	Variable	Pole
Hemlock	Low	Variable	Pole

71	6112 - Lowland Aspen	Sapling Well	20.9	4	Immature	N/A	harvested in oct.2017Was harvested when area was very dry.
----	----------------------	--------------	------	---	----------	-----	--

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	30	Sapling	1	4
Quaking Aspen	70	Sapling	1	4

72	4130 - Aspen	Poletimber Well	10.6	46	Unspecified	N/A	
----	--------------	-----------------	------	----	-------------	-----	--

Canopy Species	% Cover	Size Class	DBH	Age
Quaking Aspen	80	Pole	6	46
White Pine	15	Pole	8	
Black Cherry	5	Pole/Sapling	6	

Sub-Canopy Species	Density	Avg. Height	Size
Alder	Medium	< 5 feet	Tall Shrub
Quaking Aspen	Low	Variable	Sapling



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
73	42310 - Planted Spruce	Poletimber Well	13.9	57	Unspecified	N/A			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen		10	Pole/Sapling	7		White Spruce	Low	Variable	Sapling
White Spruce		90	Pole	7	57				
74	310 - Herbaceous Openland	Nonstocked	11.1		Unspecified	No			
75	6112 - Lowland Aspen	Sapling Medium	39.3	46	Unspecified	N/A			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen		70	Sapling/Pole	4	46	Black Cherry	Medium	Variable	Sapling
Bigtooth Aspen		10	Sapling/Pole	4		Willow spp.	Medium	< 5 feet	Tall Shrub
Black Cherry		20	Pole/Sapling	5	46				
76	310 - Herbaceous Openland	Nonstocked	1.2		Unspecified	No			
77	310 - Herbaceous Openland	Nonstocked	2.1		Unspecified	No			
78	4130 - Aspen	Poletimber Medium	89.6	46	Unspecified	N/A	Approx.. 20 small one acre areas of white pine or spruce (alternating) were planted in 1960. The small areas are found mostly in the SENW of sec. 15, and were planted for wildlife use.		
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple		10	Pole	7		Black Cherry	Medium	< 5 feet	Sapling
Quaking Aspen		60	Pole	7	46	Quaking Aspen	Low	5 - 10 feet	Sapling
Bigtooth Aspen		20	Pole	7	46	Willow spp.	Medium	< 5 feet	Tall Shrub
Black Cherry		10	Log/Pole	10					
79	4130 - Aspen	Sapling Well	32.7	6	Immature	N/A			
Canopy Species		% Cover	Size Class	DBH	Age				
Red Maple		20	Sapling	1	6				
Quaking Aspen		60	Sapling	1	6				
Bigtooth Aspen		20	Sapling	1	6				
80	4130 - Aspen	Sapling Well	20.7	6	Immature	N/A			
Canopy Species		% Cover	Size Class	DBH	Age				
Quaking Aspen		95	Sapling	1	6				
Black Cherry		5	Sapling	1	6				
81	330 - Low-Density Trees	Nonstocked	2.2		Unspecified	No			



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
82	4130 - Aspen	Sapling Well	10.7	6	Immature	N/A			
Canopy Species		% Cover	Size Class	DBH	Age				
Quaking Aspen		90	Sapling	1	6				
Black Cherry		10	Sapling	1	6				
83	6113 - Lowland Maple	Poletimber Well	71.1	46	1-50	N/A			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
American Elm		10	Pole	8		Red Maple	Medium	10 - 20 feet	Sapling
Red Maple		70	Pole/Log	9	46				
Quaking Aspen		20	Pole	8	46				
84	4130 - Aspen	Sapling Well	7.2	6	Immature	N/A			
Canopy Species		% Cover	Size Class	DBH	Age				
Quaking Aspen		95	Sapling	1	6				
Black Cherry		5	Sapling	1	6				
85	4130 - Aspen	Poletimber Medium	27.5	46	Unspecified	N/A			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen		90	Pole/Sapling	7	46	Quaking Aspen	Low	Variable	Sapling
Black Cherry		10	Pole/Sapling	6		Black Cherry	Low	< 5 feet	Sapling
						Willow spp.	Medium	< 5 feet	Tall Shrub
86	4130 - Aspen	Poletimber Medium	9.9	46	Unspecified	N/A			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen		95	Pole/Sapling	7	46	Black Cherry	Low	< 5 feet	Sapling
Black Cherry		5	Pole/Sapling	6					
87	6112 - Lowland Aspen	Poletimber Well	122.6	46	Unspecified	N/A			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
American Elm		10	Pole	7		American Elm	Low	Variable	Sapling
Red Maple		40	Pole/Sap/Log	8	46	Red Maple	Medium	Variable	Sapling
Quaking Aspen		50	Pole	8	46	Black Ash	Low	Variable	Sapling
						Willow spp.	Low	5 - 10 feet	Tall Shrub
88	6113 - Lowland Maple	Sawtimber Well	16.8	88	81-110	N/A			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
American Elm		3	Pole/Log	9		Red Maple	Medium	Variable	Sapling
Red Maple		97	Log/Pole/XLog	16	88	Black Ash	Medium	Variable	Sapling



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
89	4130 - Aspen	Poletimber Well	20.2	46	Unspecified	N/A	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	
Quaking Aspen		85	Pole/Sapling	7	46	Black Cherry	
Bigtooth Aspen		15	Pole/Sapling	7	46	Low	< 5 feet
							Sapling
91	622 - Lowland Shrub	Nonstocked	5.5		Unspecified	No	
Sub-Canopy Species		Density	Avg. Height	Size			
Blueberry/Bilberry/Cranberry		Medium	< 5 feet	Tall Shrub			
92	4130 - Aspen	Sapling Well	24.7	7	Immature	N/A	
Canopy Species		% Cover	Size Class	DBH	Age		
Red Maple		20	Sapling	1			
Quaking Aspen		67	Sapling	1	7		
White Pine		3	Pole/Log	7			
Black Cherry		10	Sapling	1			
93	4130 - Aspen	Sapling Well	7.9	7	Immature	N/A	
Canopy Species		% Cover	Size Class	DBH	Age		
Red Maple		15	Sapling	1	7		
Bigtooth Aspen		82	Sapling	1	7		
Black Cherry		3	Sapling	1			
94	4130 - Aspen	Poletimber Well	17.2	55	Unspecified	N/A	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	
Red Maple		10	Pole	8		Red Maple	
Quaking Aspen		45	Pole	8	55	High	Variable
Bigtooth Aspen		25	Pole	8	55		Sapling
White Pine		5	Log/Pole	12			
Black Cherry		15	Log/Pole	12			
95	4130 - Aspen	Sapling Well	19.0	6	Immature	N/A	
Canopy Species		% Cover	Size Class	DBH	Age		
Red Maple		10	Sapling	1			
Quaking Aspen		45	Sapling	1	6		
Bigtooth Aspen		25	Sapling	1	6		
White Pine		5	Log/Pole	12			
Black Cherry		15	Sapling	1			