



Compartment Review Presentation

Traverse City Forest Management Unit

Compartment 61042

Entry Year 2019

Acreage: 3,313

County Grand Traverse

Management Area: Williamsburg Moraine

Revision Date: 2017-05-23

Stand Examiner: Pat Ruppen

Legal Description:

T27N R10W Sections 11-14, 23-26

Identified Planning Goals:

This compartment falls within the Williamsburg Moraine management area. (M.A.) Vegetation management in the Williamsburg Moraine management area (MA) will provide various forest products; maintain or enhance wildlife habitat; protect areas of unique character and threatened, endangered and special concern species; and provide for forest-based recreational uses. Timber management objectives for this management area for this 10-year planning period include improving the age-class structure of aspen, regenerating oak and the continuation of management through selection or restarting harvests of red pine and upland hardwood communities. Wildlife habitat management objectives include increasing the structural complexity of upland hardwood communities for forest interior species; perpetuating early-successional communities for young-forest-dependent species, hunting and other wildlife-related recreation opportunities; maintaining soft and hard mast sources including oak; and preserving the biodiversity value of the Skegemog high conservation value area. Expected trends within this 10-year planning period are: increased recreational pressure, especially on established trails; increased oil and gas development; introduced pests and diseases, especially beech bark disease, emerald ash borer and oak wilt; an increased need to regenerate oak and red pine; and the decreased dominance of pure oak types to mixed pine/oak types.

This compartment is generally represented by two LTAs (land type associations).

The northern 1/3 of the compartment is represented by LTA 1111. This is the smallest subsection in Northern Lower Michigan and is 84% in private ownership. It is described as steep broken moraine ridges with extensively drained sand. It is sandwiched between drumlin fields to the north and outwash plains to the south. This end moraine topography was dominated by northern hardwood forests at settlement times. A portion of this LTA was covered by dry mesic forests dominated by red and white pine. Aspen and birch were only slightly represented in this LTA at settlement times but this cover type is now very evident. Wildfires which started on the outwash plains to the south spread in to these end moraines and favored the establishment of oak/pine/aspen types rather than northern hardwoods dominated by sugar maple.

The southern 2/3 of this compartment is primarily described by LTA 5211 which is glacial outwash plain pitted with ice block depressions. This is the largest LTA in Northern Lower Michigan and contains the largest percentage of public land of all the LTAs. In pre-settlement times, large areas of this LTA were covered by the entire spectrum of conifer-dominated forests with red pine as the predominant species. Pine/oak barrens covered 25% of this area and were represented in a portion of this compartment. Large wildfires were common and maintained the oak/pine barrens. These fires generally originated in the outwash plain and spread in to portions of the ice contact ridges. Oak dominated the less fire prone sites and northern hardwood communities the least prone. Due to fire suppression the extent of natural xeric pine associations, Pine Barrens and dry prairie openings have been greatly reduced.

Forest associations formed after the last cycle of extensive fires (1920-1930) are present in this compartment. These are generally stands with an oak, aspen and pine canopies. The most common under story species is white pine which is heavily stocked in places with an under represented red pine component. An attempt should be made through vegetative management and the use of prescribed fire to re-set the clock on some of these stands and recreate some new natural pine/oak/aspen mixes or to re-establish pine/oak barrens. Red pine inter-planting will be necessary in some instances to return this disturbance dependant species to the vegetative mix. Oak should be maintained as a canopy species to provide m

Soil and topography:

Slopes vary from flat to steep. Soils are described as deep, excessively drained acidic sands- mainly Grayling, Kalkaska and Rubicon.

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

Rapidly growing residential area especially along the north and east side of compartment.

Unique Natural Features:

Stand 87 is a depression with old pine components that had been identified in previous inventory. Retain old pine characteristics.

Archeological, Historical, and Cultural Features:

None noted

Special Management Designations or Considerations:

None

Watershed and Fisheries Considerations:

This compartment is within the Acme Creek/East Grand Traverse Bay watershed. Stand 6 appears to be the only treatment that interacts with surface water, though there are some low wetland areas elsewhere in the compartment. Reasonable buffers (as outlined in Water Quality Management Practices on Forest Land) and restrictions should be adhered to. Acme Creek is a naturally reproducing, Type 1 designated trout stream; existing buffers appear to be appropriate for the proposed treatments.

Wildlife Habitat Considerations:

Compartment 42 stretches across two glacial land types, moraine ridges to the north and an outwash plain which covers about the southern 1/3 of the compartment. Wildfire was a common natural disturbance of the sandy outwash plains. Consequently, many of the communities found here are comprised of fire dependent species. Present habitat types include oak and aspen communities with some conifer components. Some patches of hardwoods exist on the sites less prone to fire. Aspen cuts as well as other treatments should be designed to mimic wildfires of various intensities to promote a variety of successional stages and age classes of pine-oak-aspen forest and grass-shrub openings. Harvests should incorporate retention of snags, downed logs, and sturdy mature leave trees to mimic natural disturbances and improve wildlife habitat. Regeneration of the aging oak component should be a priority as well. Small wetlands or ponds are found in ice block depressions scattered about this area.

Some depressions which function as frost pockets and cold air drainages support open or semi-open communities. Prescribed fire is an important tool in maintaining the health of these habitats. Opportunities to re-establish the currently rare barrens communities should be pursued when identified. Similarly, forest treatments relying on natural re-vegetation should seriously consider accepting results that include areas that are less than fully stocked. These resulting small forest openings add diversity to the landscape, allowing for the establishment of grasses, forbs, and shrubs. A variety of wildlife species, including: deer, turkey, ruffed grouse, fox squirrel, red bat, badger, and eastern garter snake, call this fire derived mosaic home. A number of abandoned oil well pads exist in this compartment and need to be re-vegetated. Most of these sites will be planted to appropriate herbaceous cover and some may be temporarily used as timber landings. Non-forested habitats provide essential life requirements for a variety of wildlife in the form of food (herbaceous forage, fruiting shrubs, insects, small mammals, etc.) and cover (thickets of shrubs, tall grasses, ferns, brushy edges, etc.).

The moraine ridges in the north part of the compartment are comprised of steep sandy hills supporting a mixture of oak, aspen, and northern hardwood. Considerations for northern hardwood stands include maintaining tree species diversity, the protection of den/nesting trees & snags, coarse woody debris (CWD), and maintaining a scattering of mast-producing trees/shrubs. Wildfire would occasionally make its way into these ridges from the adjacent outwash plains. Therefore, the south and west borders of this moraine complex are good areas to manage for earlier successional communities. Wildlife species benefiting from these communities include: deer, black bear, downy woodpecker, and eastern box turtle. The openings found among the ridges in compartment 42 are either of ice block depression origin or are products of drilling for fossil fuels.

Mineral Resource and Development Concerns and/or Restrictions

There is no known metallic mineral potential in this region. An active sand/gravel pit is located in the NE/4 NE/4 of Section 12, and there is good sand potential and some gravel potential within the compartment. The compartment is located along the north edge of the Niagaran reef trend and has minor production occurring in the southeast corner (Sec 25). There may be some minor potential for additional Niagaran reef production in the southern half of the compartment. There is also Antrim Shale gas potential within the compartment. Aside from the leases in Section 25 that are held by production, most of the leases within the compartment have expired, though a few have been extended to 8/1/2017.

Vehicle Access:

Access is generally good via county roads but access within the compartment is limited because many of the well placed roads are utilized by the VASA ski trail. Management activities will need to utilize portions of the trail for access.

Survey Needs:

Several possible trespass incidents were noted adjacent to subdivisions. Survey assistance may be needed.

Recreational Facilities and Opportunities:

This compartment has heavy recreation use. This compartment contains a significant portion of the VASA cross country ski trail and is adjacent to the trail head and parking lot for this trail. It also houses the parking lot/trailhead for the VASA Single Track mountain bike trail and a portion of this trail. There is also a significant amount of unauthorized mountain bike trail on old motorcycle event trails. Also, a stretch of the Boardman Valley Snowmobile Trail (Trail #5) passes through the compartment. In addition, this compartment is used for other outdoor leisure activities such as hunting, hiking and camping. Policy and Procedure 32.22-01 (Best Management Practices for Forest and Wildlife Management Adjacent to Recreational Trails) should be considered if forest treatments impact these recreational facilities (T.M.N. 11/3/16)

Fire Protection:

This area is protected by the Grand Traverse Fire Department and DNR fire protection is from the Traverse City Unit. Urban interface can be an issue in some parts of this compartment with scattered ownership of private land. Access is acceptable.

Additional Compartment Information:**The following reports from the Inventory are attached:**

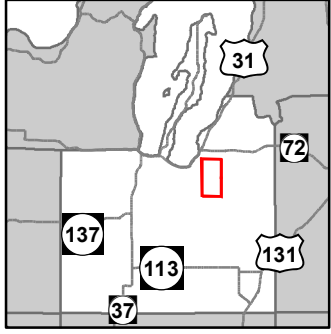
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

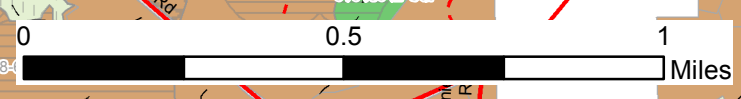
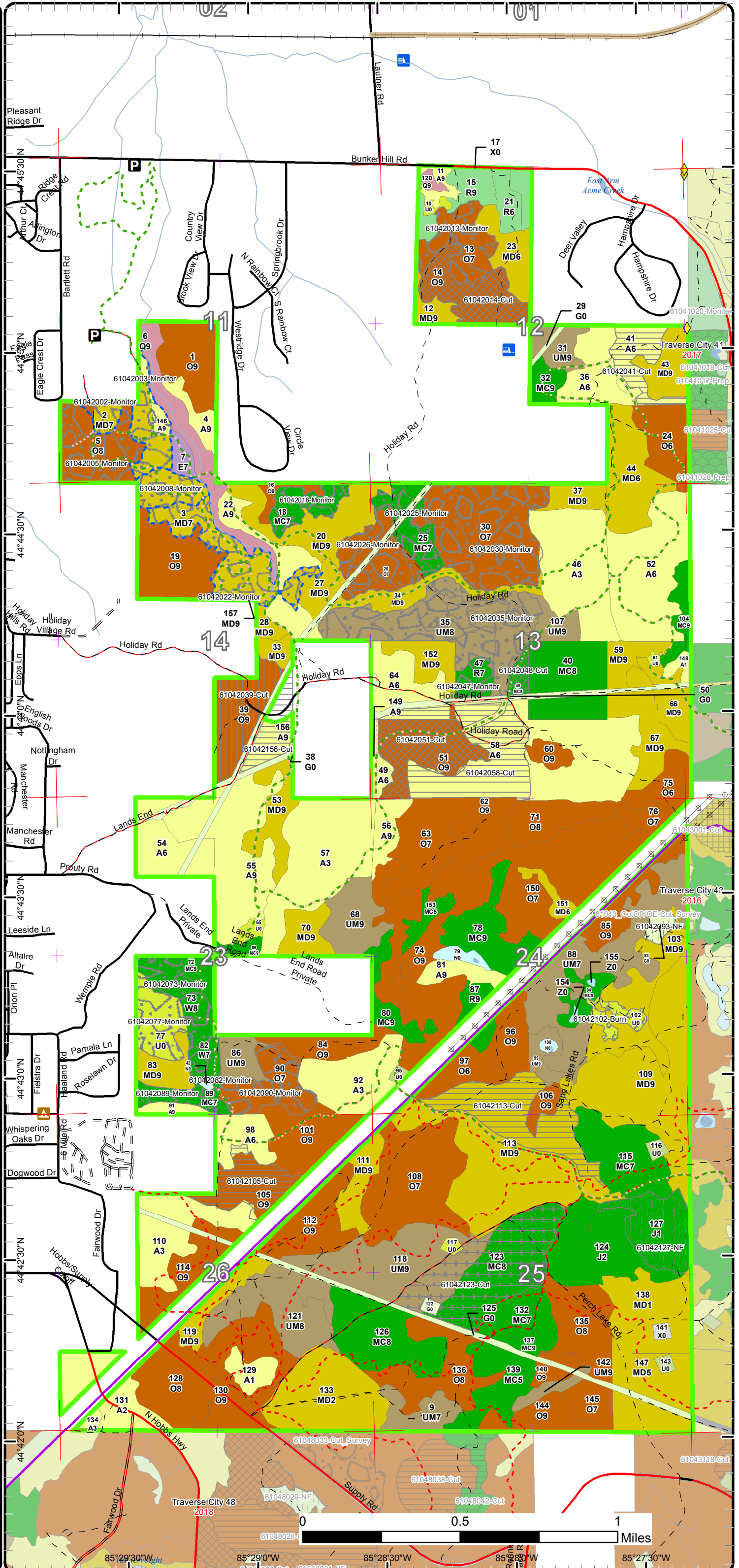
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatment Map

Compartment: 42
 T27NR10W Sec. 11-14, 23-26
 County: Grand Traverse
 Unit: Traverse City
 Mgmt Area: Williamsburg Moraine
 YOE: 2019
 Acres: 3312.7 GIS Calculated
 Examiner: Pat Ruppen
 Map Revised: 8/4/2017
 Map Phase: Post-Review



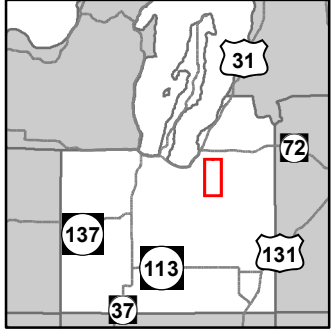
- Miris Corners
- Remonumented Section Corners
- Survey Grade GPS Corners
- Counties
- Dams
- Campground
- Parking Lot
- Designated Hiking Trails
- Designated Bicycle Trails
- Designated Ski Trails
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- County Paved Roads
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- Streams
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- Powerline
- Compartment Boundary
- Treatments with Site Conditions
- Selection (Group, Single Tree)
- Clearcut (w/Reserves)
- Prescribed Burn
- Opening Maintenance
- Regeneration Survey
- Harvest, Overstory Removal
- Shelter Wood (w/Reserves)
- 412 - Oak Types
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 110 - Low Intensity Urban
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low Density Trees
- 500 - Water
- 623 - Emergent Wetland
- Lakes



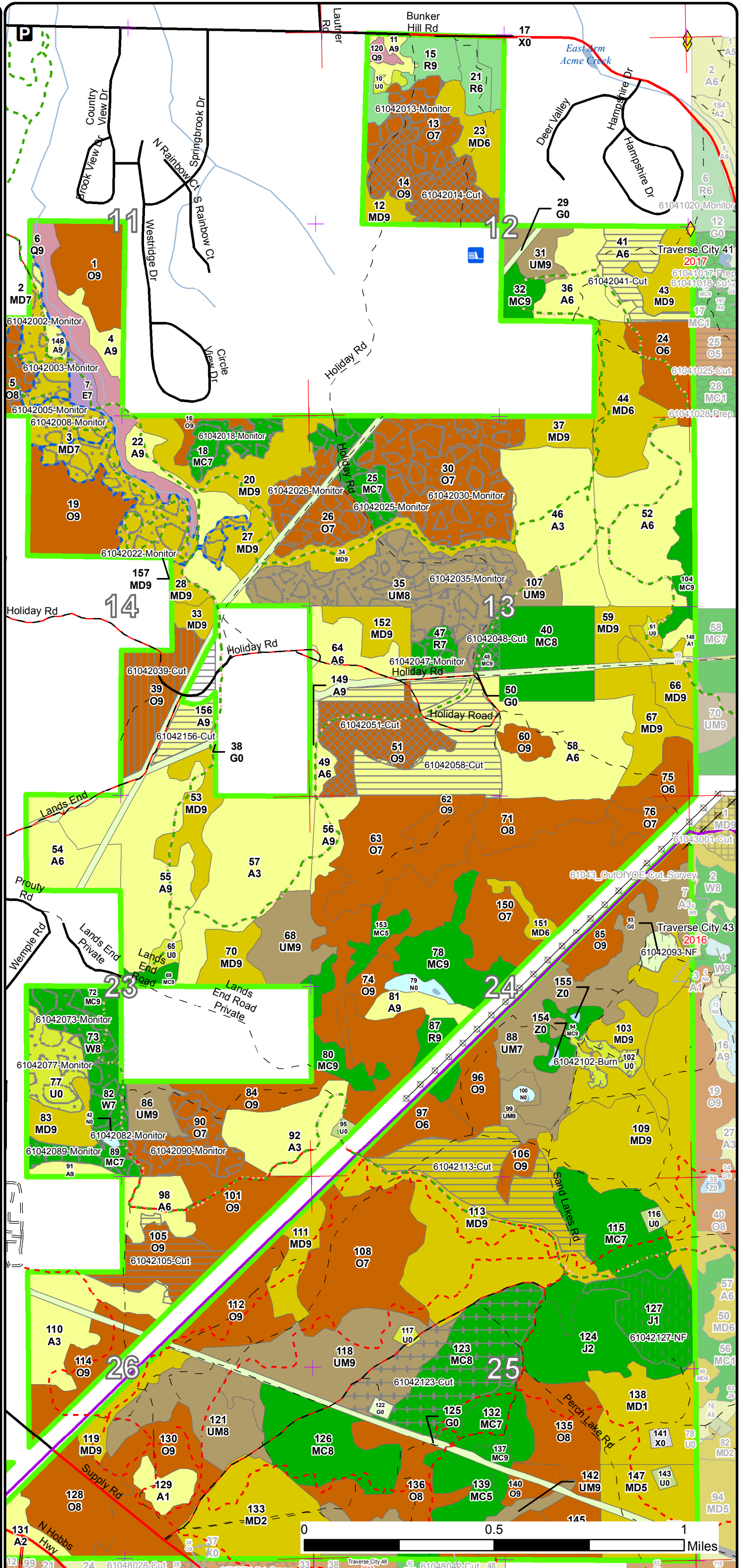
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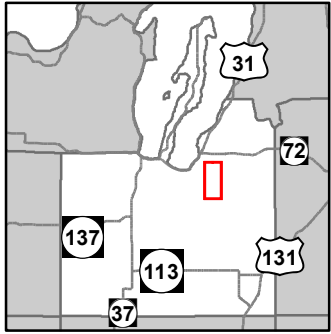


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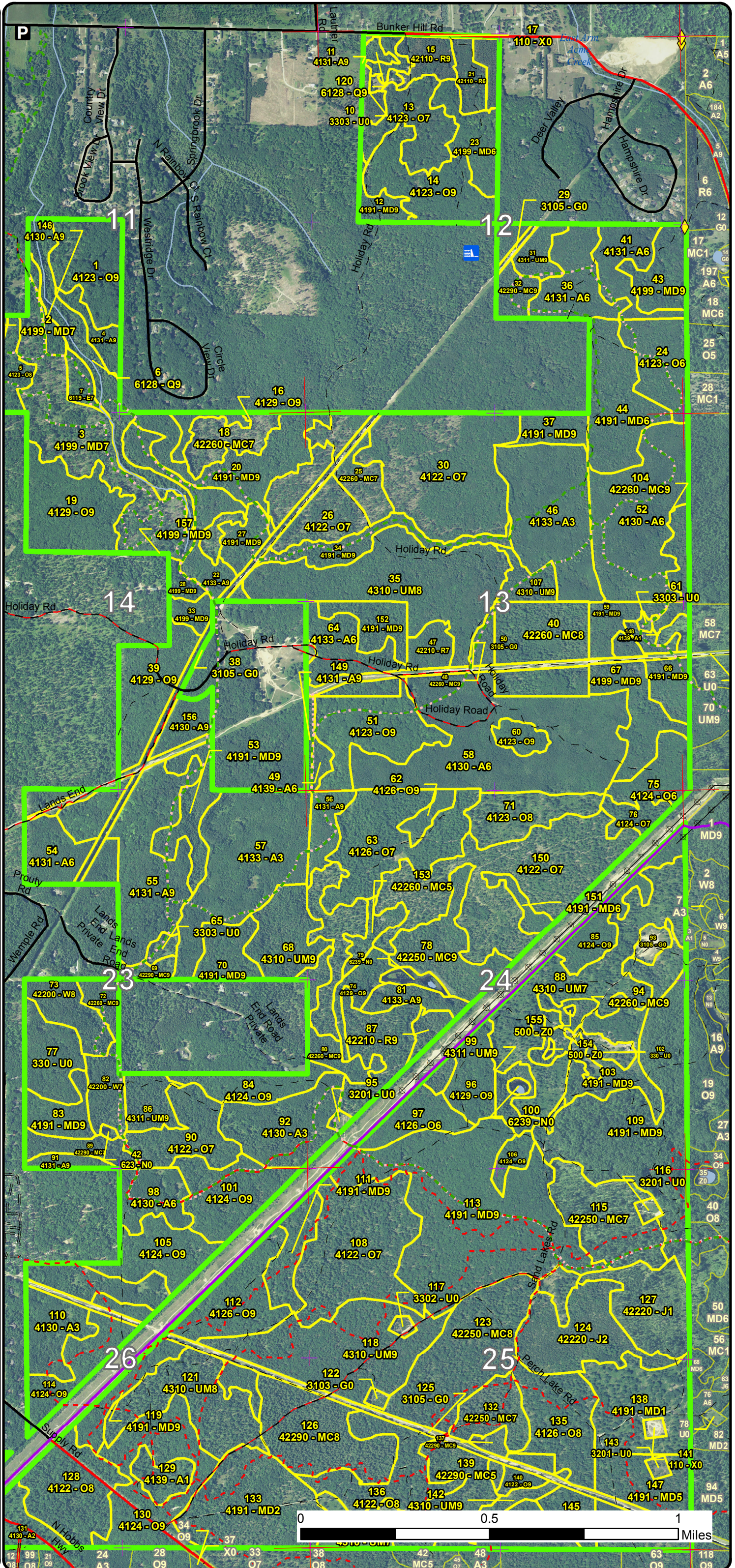


Stand Boundary Map

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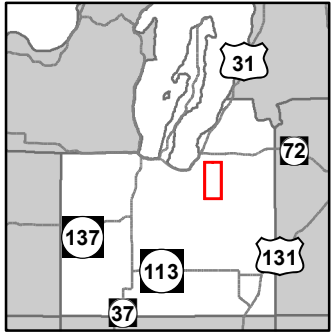


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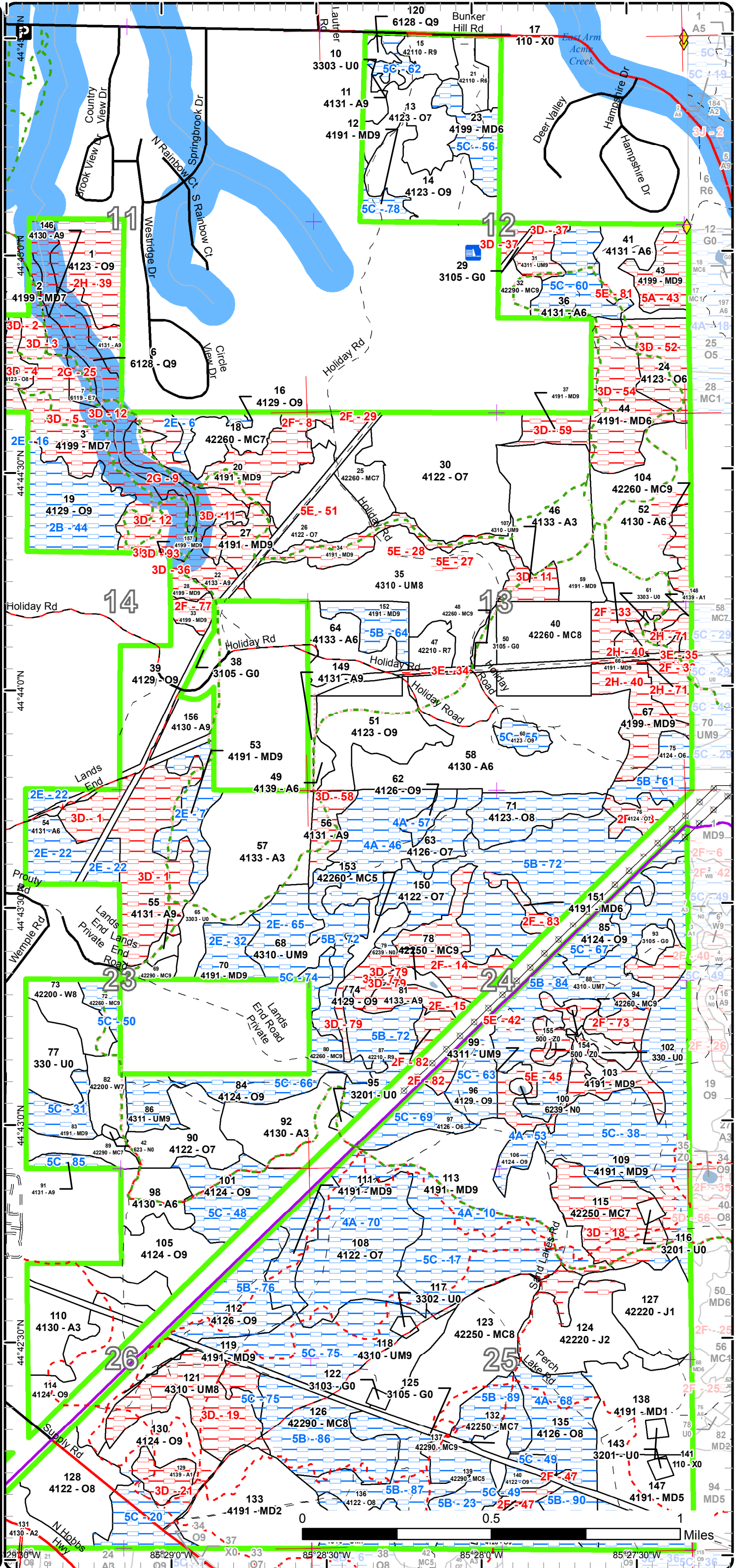


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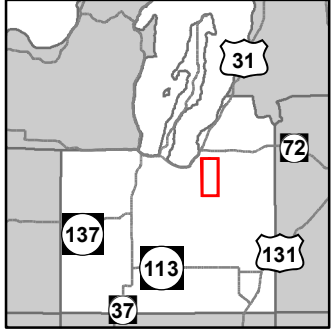


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- 2E: Road needed
- 4A: No Markets Available for these Forest Products
- 5B: Maintain for regeneration purposes
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2F: Too steep
- 2G: Too wet (sensitive soils, does not include access issues)
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 3D: Recreational / Scenic values
- 3E: Easement / lease, non-military (e.g.- Consumers Power red pine, etc)
- 5A: Not able to obtain desirable regeneration
- 5E: Long-Term Retention
- Stand Boundaries
- Cold Water Streams
- High Priority Trout Stream Buffer

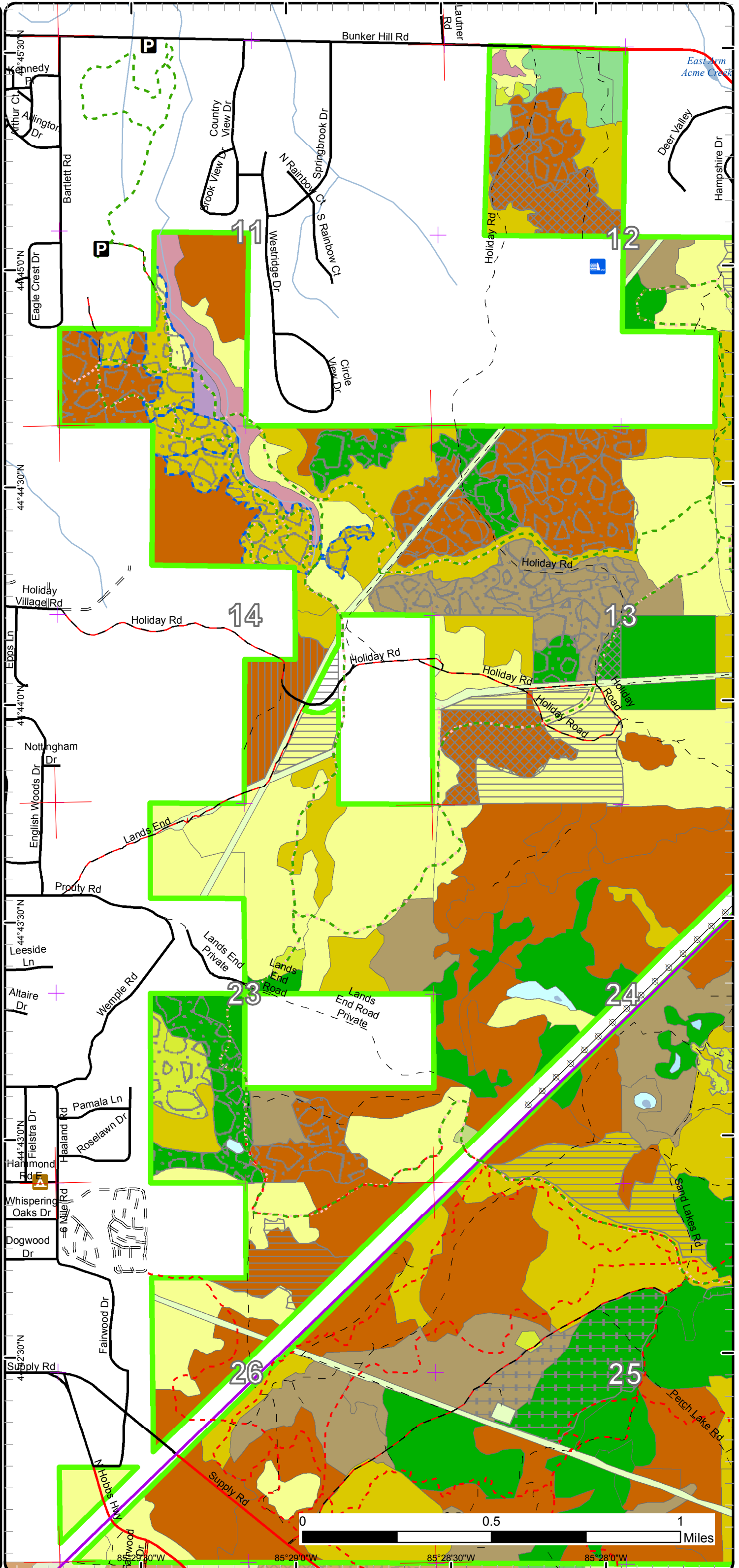


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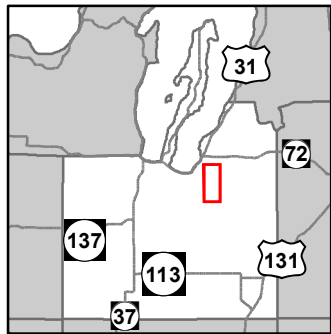
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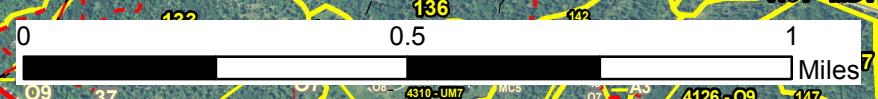
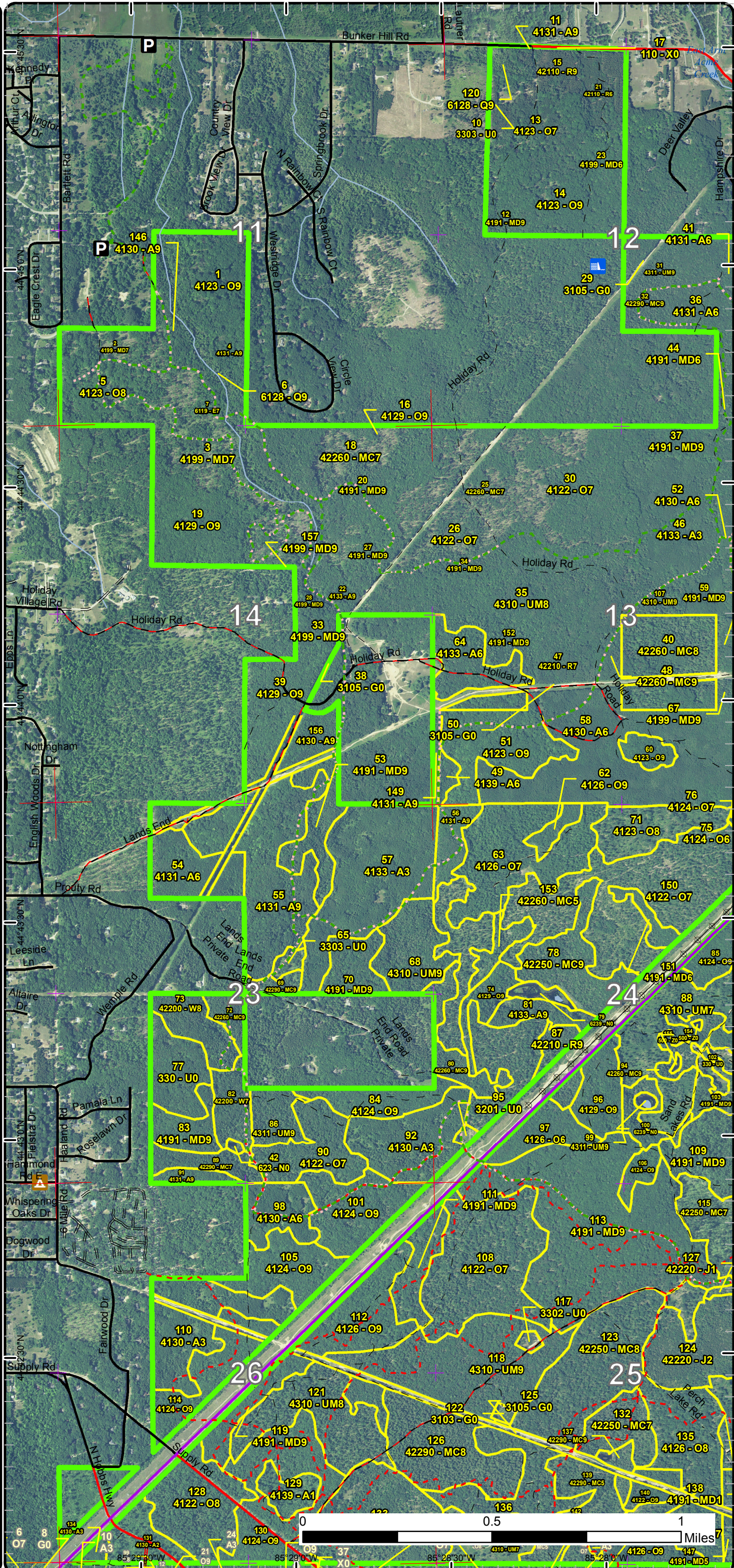
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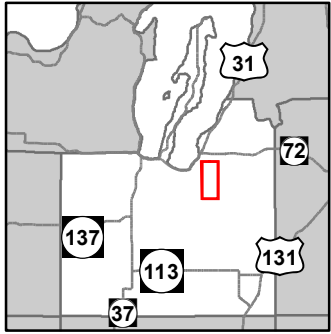
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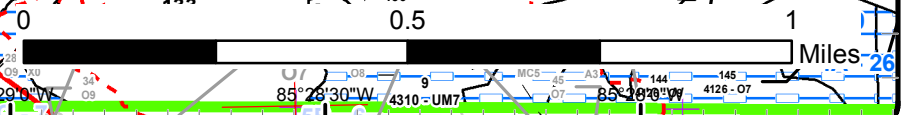
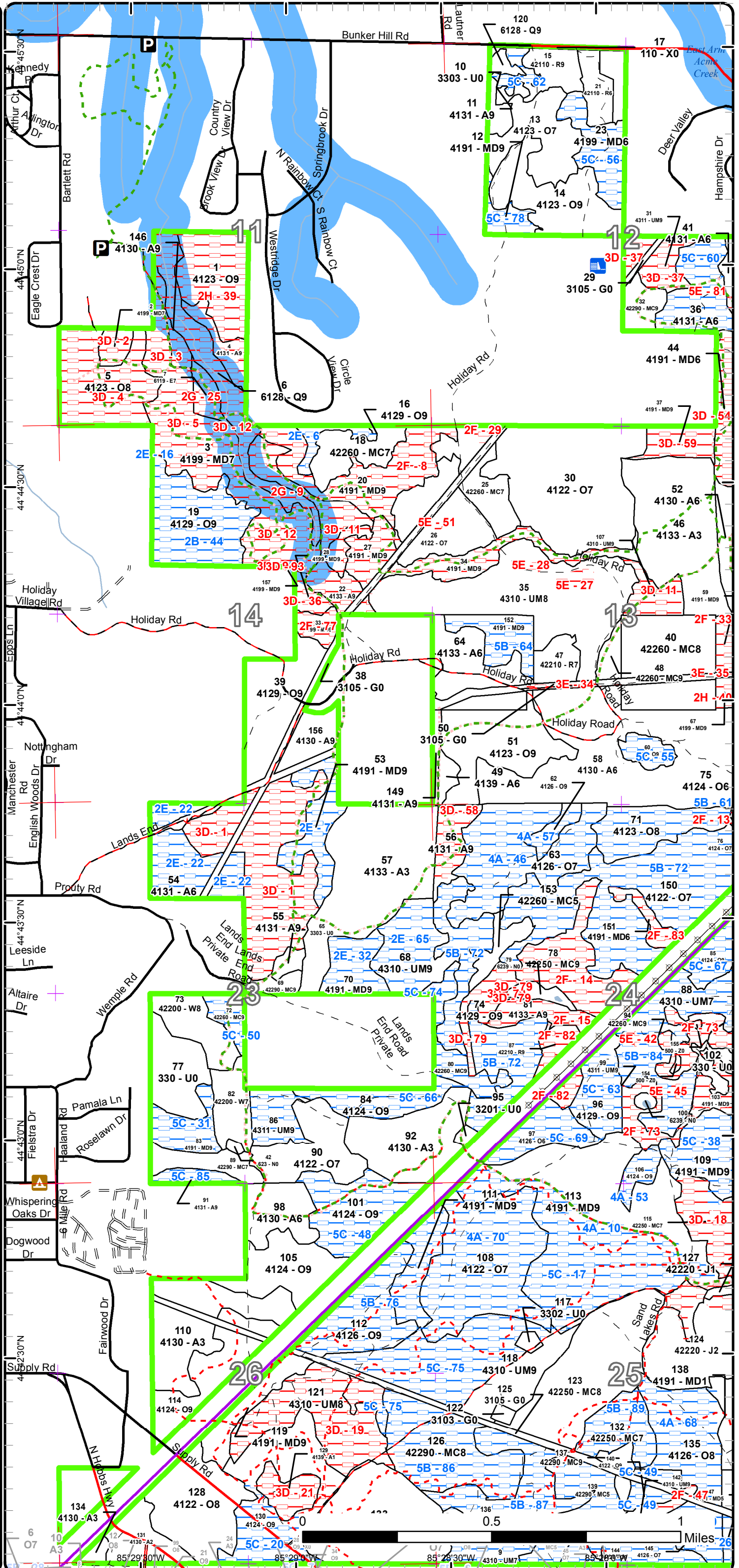
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Report 1 – Total Acres by Cover Type and Age Class



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	41	2	204	24	211	26	0	15	5	99	8	0	0	0	0	0	0	634
Herbaceous Openland	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
Jack Pine	0	0	29	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66
Low-Density Trees	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35
Lowland Conifers	0	0	0	0	0	0	0	0	0	0	2	0	27	0	0	0	0	0	29
Lowland Deciduous	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	6
Marsh	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Mixed Upland Deciduous	0	39	0	49	36	0	0	0	0	132	194	20	174	50	25	0	0	0	718
Natural Mixed Pines	0	0	0	0	0	0	0	5	120	79	52	71	0	0	0	0	0	24	349
Oak	0	0	0	0	0	0	0	0	15	273	199	401	80	6	0	0	0	34	1007
Red Pine	0	0	0	0	9	0	0	19	0	17	0	0	0	0	0	0	0	0	43
Upland Mixed Forest	0	0	0	0	0	0	0	23	21	12	80	20	167	0	0	0	0	0	323
Upland Shrub	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Urban	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Water	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
White Pine	0	0	0	0	0	0	0	0	0	0	29	0	0	0	0	0	0	0	29
Total	111	80	31	290	69	211	26	42	41	301	762	299	840	130	31	0	0	58	3315



Report 2 – Treatment Summary

Traverse City Mgt. Unit
Year of Entry: 2019

Acres of Harvest

Compartment 42
Total Compartment Acres: 3,313

Commercial Harvest - 311
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	81	0	0	0	0	0	0	0	0	81
Mixed Upland Deciduous	43	0	0	0	0	0	0	0	0	43
Natural Mixed Pines	0	5	0	0	0	65	0	0	0	70
Oak	25	63	0	0	29	0	0	0	0	117
Total	149	68	0	0	29	65	0	0	0	311

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	311	0	0	0	8	0	419	0	33	771
Next Step	0	25	25	0	0	0	306	0	8	363
Total	311	25	25	0	8	0	725	0	41	1134



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
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2	61042002-Monitor	6.0	4199 - Other Mixed Upland Deciduous	Sawtimber Poor	110	1-50	Monitoring	Natural Regen (Re-Inventory)	4136 - Aspen, Mixed Conifer	Even-Aged	Draft Field Boundary
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Habitat Cut: No **Site Condition:** Recreational/Scenic

Prescription Specs:

Next Step Treatments:

Acceptable Regen: aspen, pine, oak, red maple

Other Comment: Percent to Treat = 100%

Proposed Start Date: 02/14/2017

3	61042003-Monitor	18.8	4199 - Other Mixed Upland Deciduous	Sawtimber Poor	80	1-50	Monitoring	Natural Regen (Re-Inventory)	4131 - Aspen, Oak	Even-Aged	Draft Field Boundary
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Habitat Cut: No **Site Condition:** Recreational/Scenic

Prescription Specs:

Next Step Treatments:

Acceptable Regen: aspen, pine, oak, red maple, white birch

Other Comment: Percent to Treat = 100%

Proposed Start Date: 10/01/2016

5	61042005-Monitor	33.1	4123 - Red Oak	Sawtimber Medium	90	51-80	Monitoring	Natural Regen (Re-Inventory)	4121 - Oak, Aspen	Uneven-Aged	Draft Field Boundary
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Habitat Cut: No **Site Condition:** Recreational/Scenic

Prescription Specs:

Next Step Treatments:

Acceptable Regen: aspen, oak, pine, maple, birch

Other Comment: Percent to Treat = 100%

Proposed Start Date: 10/01/2016

3	61042008-Monitor	13.8	4199 - Other Mixed Upland Deciduous	Sawtimber Poor	80	1-50	Monitoring	Natural Regen (Re-Inventory)	4131 - Aspen, Oak	Even-Aged	Draft Field Boundary
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Habitat Cut: No **Site Condition:** Recreational/Scenic

Prescription Specs:

Next Step Treatments:

Acceptable Regen: aspen, oak, pine, maple, birch

Other Comment: Percent to Treat = 100%

Proposed Start Date: 10/01/2016



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
13	61042013-Monitor	23.3	4123 - Red Oak	Sawtimber Poor	95	1-50	Monitoring	Natural Regen (Re-Inventory)	413 - Aspen	Two-Aged	Draft Field Boundary

Habitat Cut: No

Site Condition:

Prescription Expect regeneration of aspen, red maple with oak and white pine
Specs:

Next Step
Treatments:

Acceptable aspen, red maple, oak, pine
Regen:

Other
Comment:

Proposed Start Date: 10/01/2027

14	61042014-Cut	29.7	4123 - Red Oak	Sawtimber Well	110	111-140	Harvest	Single Tree Selection	4124 - Red with White Oak	Uneven-Aged	Field Boundary
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Habitat Cut: No

Site Condition:

Prescription Mark for Crop Tree Release. Treat with part of stand to east. Possibly Spec aspen-red maple?
Specs:

Next Step
Treatments:

Acceptable
Regen:

Other Should result and health and vigor for stand.
Comment:

Proposed Start Date: 10/01/2008

18	61042018-Monitor	15.1	42260 - Natural Pine, Mixed Deciduous	Sawtimber Poor	85	1-50	Monitoring	Natural Regen (Re-Inventory)	4121 - Oak, Aspen	Uneven-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription
Specs:

Next Step
Treatments:

Acceptable Removal of aspen and younger pine should create new age class or aspen/oak/pine/maple growing in among remnant larger oak/pine.
Regen:

Other Percent to Treat = 100%
Comment:

Proposed Start Date: 10/01/2019

3	61042022-Monitor	37.1	4199 - Other Mixed Upland Deciduous	Sawtimber Poor	80	1-50	Monitoring	Natural Regen (Re-Inventory)	4131 - Aspen, Oak	Even-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition: Recreational/Scenic

Prescription
Specs:

Next Step
Treatments:

Acceptable aspen, oak, pine, maple, birch
Regen:

Other Percent to Treat = 100%
Comment:

Proposed Start Date: 11/07/2016



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
25	61042025-Monitor	14.3	42260 - Natural Pine, Mixed Deciduous	Sawtimber Poor	85	51-80	Monitoring	Natural Regen (Re-Inventory)	42260 - Natural Pine, Mixed Deciduous	Two-Aged	Draft Field Boundary

Habitat Cut: No **Site Condition:**

Prescription
Specs:

Next Step
Treatments:

Acceptable aspen, oak, mixed pine, red maple
Regen:

Other Percent to Treat = 100%
Comment:

Proposed Start Date: 10/01/2019

26	61042026-Monitor	21.5	4122 - Oak, Pine	Sawtimber Poor	90	51-80	Monitoring	Natural Regen (Re-Inventory)	4121 - Oak, Aspen	Uneven-Aged	Draft Field Boundary
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Habitat Cut: No **Site Condition:**

Prescription
Specs:

Next Step
Treatments:

Acceptable oak, aspen, pine and red maple
Regen:

Other Percent to Treat = 100%
Comment:

Proposed Start Date: 10/01/2019

26	61042026-Monitor	21.5	4122 - Oak, Pine	Sawtimber Poor	90	51-80	Monitoring	Natural Regen (Re-Inventory)	4121 - Oak, Aspen	Uneven-Aged	Draft Field Boundary
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Habitat Cut: No **Site Condition:**

Prescription
Specs:

Next Step
Treatments:

Acceptable aspen, oak, red maple, mixed pine
Regen:

Other Percent to Treat = 100%
Comment:

Proposed Start Date: 10/01/2019

26	61042026-Monitor	7.6	4122 - Oak, Pine	Sawtimber Poor	90	51-80	Monitoring	Natural Regen (Re-Inventory)	4133 - Aspen, Mixed Pine	Uneven-Aged	Draft Field Boundary
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Habitat Cut: No **Site Condition:**

Prescription
Specs:

Next Step
Treatments:

Acceptable oak, aspen, pine and red maple
Regen:

Other Percent to Treat = 100%
Comment:

Proposed Start Date: 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
26	61042026-Monitor	7.6	4122 - Oak, Pine	Sawtimber Poor	90	51-80	Monitoring	Natural Regen (Re-Inventory)	4133 - Aspen, Mixed Pine	Uneven-Aged	Draft Field Boundary

Habitat Cut: No

Site Condition:

Prescription Specs:

Next Step Treatments:

Acceptable Regen: aspen, oak, red maple, mixed pine

Other Comment: Percent to Treat = 100%

Proposed Start Date: 10/01/2019

30	61042030-Monitor	19.7	4122 - Oak, Pine	Sawtimber Poor	100	1-50	Monitoring	Natural Regen (Re-Inventory)	42260 - Natural Pine, Mixed Deciduous	Uneven-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription Specs:

Next Step Treatments:

Acceptable Regen: Aspen, Red Maple, White Pine, Red pine, Oak

Other Comment: Percent to Treat = 100%

Proposed Start Date: 10/01/2019

30	61042030-Monitor	19.7	4122 - Oak, Pine	Sawtimber Poor	100	1-50	Monitoring	Natural Regen (Re-Inventory)	42260 - Natural Pine, Mixed Deciduous	Uneven-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription Specs:

Next Step Treatments:

Acceptable Regen: aspen, oak, mixed pine, red maple

Other Comment: Percent to Treat = 100%

Proposed Start Date: 10/01/2019

30	61042030-Monitor	52.8	4122 - Oak, Pine	Sawtimber Poor	100	1-50	Monitoring	Natural Regen (Re-Inventory)	4121 - Oak, Aspen	Uneven-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription Specs:

Next Step Treatments:

Acceptable Regen: Aspen, Red Maple, White Pine, Red pine, Oak

Other Comment: Percent to Treat = 100%

Proposed Start Date: 10/01/2019



Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
30	61042030-Monitor	52.8	4122 - Oak, Pine	Sawtimber Poor	100	1-50	Monitoring	Natural Regen (Re-Inventory)	4121 - Oak, Aspen	Uneven-Aged	Draft Field Boundary

Habitat Cut: No

Site Condition:

Prescription Specs:

Next Step Treatments:

Acceptable Regen: aspen, oak, mixed pine, red maple

Other Comment: Percent to Treat = 100%

Proposed Start Date: 10/01/2019

40	61042035-Monitor	9.8	42260 - Natural Pine, Mixed Deciduous	Sawtimber Medium	90	1-50	Monitoring	Natural Regen (Re-Inventory)	4133 - Aspen, Mixed Pine	Even-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription Specs:

Next Step Treatments:

Acceptable Regen: Expect aspen regeneration mixed with pine. oak and maple.

Other Comment: Percent to Treat = 100%

Proposed Start Date: 10/01/2019

40	61042035-Monitor	9.8	42260 - Natural Pine, Mixed Deciduous	Sawtimber Medium	90	1-50	Monitoring	Natural Regen (Re-Inventory)	4133 - Aspen, Mixed Pine	Even-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription Specs:

Next Step Treatments:

Acceptable Regen: Expect second age to develop in patches with aspen , oak, pine and maple regeneration

Other Comment: Percent to Treat = 100%

Proposed Start Date: 10/01/2019

40	61042035-Monitor	9.8	42260 - Natural Pine, Mixed Deciduous	Sawtimber Medium	90	1-50	Monitoring	Natural Regen (Re-Inventory)	4133 - Aspen, Mixed Pine	Even-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription Specs:

Next Step Treatments:

Acceptable Regen: Stand is converting back to white pine. Expect mix of aspen, oak, maple and pine in second age and increased vigor and growth on remaining crop trees.

Other Comment: Percent to Treat = 100%

Proposed Start Date: 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
40	61042035-Monitor	9.8	42260 - Natural Pine, Mixed Deciduous	Sawtimber Medium	90	1-50	Monitoring	Natural Regen (Re-Inventory)	4133 - Aspen, Mixed Pine	Even-Aged	Draft Field Boundary

Habitat Cut: No

Site Condition:

Prescription

Specs:

Next Step

Treatments:

Acceptable Regen: Expect patch regeneration of aspen/maple/pine and oak and increase vigor and growth on trees treated with crown release

Other Comment: Percent to Treat = 100%

Proposed Start Date: 10/01/2019

35	61042035-Monitor	12.4	4310 - Pine, Oak Mix	Sawtimber Medium	90	51-80	Monitoring	Natural Regen (Re-Inventory)	4121 - Oak, Aspen	Uneven-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription

Specs:

Next Step

Treatments:

Acceptable Regen: Expect aspen regeneration mixed with pine. oak and maple.

Other Comment: Percent to Treat = 100%

Proposed Start Date: 10/01/2019

35	61042035-Monitor	12.4	4310 - Pine, Oak Mix	Sawtimber Medium	90	51-80	Monitoring	Natural Regen (Re-Inventory)	4121 - Oak, Aspen	Uneven-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription

Specs:

Next Step

Treatments:

Acceptable Regen: Expect second age to develop in patches with aspen , oak, pine and maple regeneration

Other Comment: Percent to Treat = 100%

Proposed Start Date: 10/01/2019

35	61042035-Monitor	12.4	4310 - Pine, Oak Mix	Sawtimber Medium	90	51-80	Monitoring	Natural Regen (Re-Inventory)	4121 - Oak, Aspen	Uneven-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription

Specs:

Next Step

Treatments:

Acceptable Regen: Stand is converting back to white pine. Expect mix of aspen, oak, maple and pine in second age and increased vigor and growth on remaining crop trees.

Other Comment: Percent to Treat = 100%

Proposed Start Date: 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
35	61042035-Monitor	12.4	4310 - Pine, Oak Mix	Sawtimber Medium	90	51-80	Monitoring	Natural Regen (Re-Inventory)	4121 - Oak, Aspen	Uneven-Aged	Draft Field Boundary

Habitat Cut: No

Site Condition:

Prescription
Specs:

Next Step
Treatments:

Acceptable Regen: Expect patch regeneration of aspen/maple/pine and oak and increase vigor and growth on trees treated with crown release

Other Comment: Percent to Treat = 100%

Proposed Start Date: 10/01/2019

35	61042035-Monitor	18.5	4310 - Pine, Oak Mix	Sawtimber Medium	90	51-80	Monitoring	Natural Regen (Re-Inventory)	4121 - Oak, Aspen	Uneven-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription
Specs:

Next Step
Treatments:

Acceptable Regen: Expect aspen regeneration mixed with pine, oak and maple.

Other Comment: Percent to Treat = 100%

Proposed Start Date: 10/01/2019

35	61042035-Monitor	18.5	4310 - Pine, Oak Mix	Sawtimber Medium	90	51-80	Monitoring	Natural Regen (Re-Inventory)	4121 - Oak, Aspen	Uneven-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription
Specs:

Next Step
Treatments:

Acceptable Regen: Expect second age to develop in patches with aspen, oak, pine and maple regeneration

Other Comment: Percent to Treat = 100%

Proposed Start Date: 10/01/2019

35	61042035-Monitor	18.5	4310 - Pine, Oak Mix	Sawtimber Medium	90	51-80	Monitoring	Natural Regen (Re-Inventory)	4121 - Oak, Aspen	Uneven-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription
Specs:

Next Step
Treatments:

Acceptable Regen: Stand is converting back to white pine. Expect mix of aspen, oak, maple and pine in second age and increased vigor and growth on remaining crop trees.

Other Comment: Percent to Treat = 100%

Proposed Start Date: 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
35	61042035-Monitor	18.5	4310 - Pine, Oak Mix	Sawtimber Medium	90	51-80	Monitoring	Natural Regen (Re-Inventory)	4121 - Oak, Aspen	Uneven-Aged	Draft Field Boundary

Habitat Cut: No

Site Condition:

Prescription
Specs:

Next Step
Treatments:

Acceptable Regen: Expect patch regeneration of aspen/maple/pine and oak and increase vigor and growth on trees treated with crown release

Other Comment: Percent to Treat = 100%

Proposed Start Date: 10/01/2019

35	61042035-Monitor	23.7	4310 - Pine, Oak Mix	Sawtimber Medium	90	51-80	Monitoring	Natural Regen (Re-Inventory)	4121 - Oak, Aspen	Uneven-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription
Specs:

Next Step
Treatments:

Acceptable Regen: Expect aspen regeneration mixed with pine, oak and maple.

Other Comment: Percent to Treat = 100%

Proposed Start Date: 10/01/2019

35	61042035-Monitor	23.7	4310 - Pine, Oak Mix	Sawtimber Medium	90	51-80	Monitoring	Natural Regen (Re-Inventory)	4121 - Oak, Aspen	Uneven-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription
Specs:

Next Step
Treatments:

Acceptable Regen: Expect second age to develop in patches with aspen, oak, pine and maple regeneration

Other Comment: Percent to Treat = 100%

Proposed Start Date: 10/01/2019

35	61042035-Monitor	23.7	4310 - Pine, Oak Mix	Sawtimber Medium	90	51-80	Monitoring	Natural Regen (Re-Inventory)	4121 - Oak, Aspen	Uneven-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription
Specs:

Next Step
Treatments:

Acceptable Regen: Stand is converting back to white pine. Expect mix of aspen, oak, maple and pine in second age and increased vigor and growth on remaining crop trees.

Other Comment: Percent to Treat = 100%

Proposed Start Date: 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
35	61042035-Monitor	23.7	4310 - Pine, Oak Mix	Sawtimber Medium	90	51-80	Monitoring	Natural Regen (Re-Inventory)	4121 - Oak, Aspen	Uneven-Aged	Draft Field Boundary

Habitat Cut: No

Site Condition:

Prescription
Specs:

Next Step
Treatments:

Acceptable Regen: Expect patch regeneration of aspen/maple/pine and oak and increase vigor and growth on trees treated with crown release

Other Comment: Percent to Treat = 100%

Proposed Start Date: 10/01/2019

39	61042039-Cut	29.1	4129 - Mixed Oak	Sawtimber Well	100	171-200	Harvest	Shelterwood	4122 - Oak, Pine	Two-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription Reduce basal area to @ 40 to allow pine understory too advance. Basal area may be higher where quality is found. Remove most aspen. Retain any with cavities if found. Remove most red maple and low quality oak. Retain most pine.
Specs:

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

Acceptable Regen: oak, pine, aspen, red maple.

Other Comment: County seasonal road into sale area is poor quality and sandy.

Proposed Start Date: 10/01/2018

41	61042041-Cut	17.3	4131 - Aspen, Oak	Poletimber Well	47	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription Retain some well formed oak and pine. Harvest remaining stems to regenerate stand. Remove most of the large crowned oak but retain some.
Specs: Retention pockets along vasa trail.

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

Acceptable Regen: aspen, oak, red maple, white pine, red pine.

Other Comment: Can be accessed through stand 6 in C41. Possible trespass along north line.

Proposed Start Date: 10/01/2018

64	61042047-Monitor	8.2	4133 - Aspen, Mixed Pine	Poletimber Well	35	81-110	Monitoring	Natural Regen (Re-Inventory)	4131 - Aspen, Oak	Even-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription
Specs:

Next Step
Treatments:

Acceptable Regen: Expect good aspen regeneration with a mix of red and white pine and oak and red maple mixed in.

Other Comment: Percent to Treat = 100%

Proposed Start Date: 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
48	61042048-Cut	4.6	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	85	141-170	Harvest	Group Selection	4319 - Mixed Upland Forest	Two-Aged	Draft Field Boundary

Habitat Cut: No

Site Condition:

Prescription Cut aspen and mark remaining stand as needed for crop tree release and to improve quality.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable pine, aspen, maple, oak.

Regen:

Other consider vasa trail. Remove only aspen as needed along trail or leave it all

Comment:

Proposed Start Date: 10/01/2018

51	61042051-Cut	33.4	4123 - Red Oak	Sawtimber Well	90	201+	Harvest	Single Tree Selection	4319 - Mixed Upland Forest	Uneven-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription Mark for crop tree release. Harvest all birch and aspen which is falling out of stand. Leave most pine and some beech. Manage for diversity and quality. Consider Vasa trail. Retain good stocking of health trees along trail. Remove hazard trees.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable oak, pine, red maple, aspen

Regen:

Other --Stephen Griffith : 11/26/2007 comments: Create some coarse woody debris (CWD) in areas of the stand where little or none currently exist, during harvest operations. Can be cull lengths, tops of significant volume, or whole unmerchantable trees.

Comment:

Expect increased growth and vigor on remaining stand.

Proposed Start Date: 10/01/2014

58	61042058-Cut	48.9	4130 - Aspen	Poletimber Well	40	81-110	Harvest	Clearcut with Retention	4131 - Aspen, Oak	Even-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription retain some widely scattered oak, pine, red maple and harvest remaining stems to regenerate stand. Create retention area along vasa trail.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable aspen, oak, red maple, white pine, red pine.

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

73	61042073-Monitor	16.1	42200 - Natural White Pine	Sawtimber Medium	90	81-110	Monitoring	Natural Regen (Re-Inventory)	4311 - Pine, Aspen Mix	Uneven-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription

Specs:

Next Step

Treatments:

Acceptable APSEN, OAK, RED PINE, WHITE PINE, RED MAPLE

Regen:

Other Percent to Treat = 100%

Comment:

Proposed Start Date: 02/14/2017



Stand Name	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
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77	61042077-Monitor	19.9	330 - Low-Density Trees	Nonstocked		Unspecified	Monitoring	Natural Regen (Re-Inventory)	4131 - Aspen, Oak	Even-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription

Specs:

Next Step

Treatments:

Acceptable ASPEN, OAK, RED MAPLE, WHITE PINE, RED PINE

Regen:

Other Percent to Treat = 100%

Comment:

Proposed Start Date: 02/14/2017

82	61042082-Monitor	12.3	42200 - Natural White Pine	Sawtimber Poor	90	1-50	Monitoring	Natural Regen (Re-Inventory)	4133 - Aspen, Mixed Pine	Uneven-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription

Specs:

Next Step

Treatments:

Acceptable Aspen, white pine, red pine, red maple, oak

Regen:

Other Percent to Treat = 100%

Comment:

Proposed Start Date: 10/01/2019

89	61042089-Monitor	10.5	42290 - Natural Mixed Pine	Sawtimber Poor	90	1-50	Monitoring	Natural Regen (Re-Inventory)	4133 - Aspen, Mixed Pine	Even-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription

Specs:

Next Step

Treatments:

Acceptable ASPEN,OAK,WHITE PINE, RED PINE, RED MAPLE

Regen:

Other Percent to Treat = 100%

Comment:

Proposed Start Date: 02/14/2017

90	61042090-Monitor	24.7	4122 - Oak, Pine	Sawtimber Poor	90	1-50	Monitoring	Natural Regen (Re-Inventory)	4133 - Aspen, Mixed Pine	Even-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription

Specs:

Next Step

Treatments:

Acceptable Aspen, oak, red maple, white pine, red pine, jack pine.

Regen:

Other Percent to Treat = 100%

Comment:

Proposed Start Date: 01/17/2017



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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
93 61042093-NF	4.5	3105 - Mixed Upland Herbaceous	Nonstocked			NonForestMgt	Herbaceous/Crop/ Grass Planting	310 - Herbaceous Openland		Draft Field Boundary

Habitat Cut: No

Site Condition:

Prescription Remove exotics as needed by herbiciding, or other methods. Seed in forage crop appropriate for site location and seasonal (i.e. summer vs. winter forage) wildlife uses. May want/need to work around existing beneficial vegetation (i.e. blackberry). Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.

Next Step
Treatments:

Acceptable
Regen:

Other Degraded site. Should re-vegetate to low maintenance herbaceous vegetation suitable for wildlife forage or cover. Soil will most likely need considerable reconditioning.

Proposed Start Date: 10/01/2018

102 61042102-Burn	7.5	330 - Low-Density Trees	Nonstocked			Burn	Opening	320 - Upland Shrub		Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription Selectively hand fell woody encroachment to maintain upland brush/grassland community. Pile felled vegetation for cover. The main treatment of this stand will be to burn it at least once per entry period in order to set back woody encroachment, increase species diversity, stimulate native herbaceous vegetation, promote berry production, and recycle nutrients.

Next Step NonForestMgt, Other - Specify
Treatments:

Acceptable
Regen:

Other
Comment:

Proposed Start Date: 10/01/2018

105 61042105-Cut	24.7	4124 - Red with White Oak	Sawtimber Well	110	111-140	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription retain some oak and pine and harvest remaining stems to prep site for planting.

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

Acceptable planted red pine, white pine, oak.
Regen:

Other Retention either in areas or scattered in site.
Comment:

Proposed Start Date: 10/01/2018

113 61042113-Cut	43.2	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	90	111-140	Harvest	Clearcut with Retention	4122 - Oak, Pine Upland Forest	Even-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription Retain 10-40 basal area of well formed oak and pine to provide mast and seed. Remove remaining stems to encourage formation of new stand and to release advanced pine understory. Protect understory through harvest.

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

Acceptable oak, rem maple, aspen, white pine, red pine, jack pine.
Regen:

Other Consider Vasa trail when putting in cutting boundary.
Comment:

Proposed Start Date: 04/27/2017



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
123	61042123-Cut	65.4	42250 - Pine, Oak	Sawtimber Medium	100	51-80	Harvest	Overstory Removal	429 - Mixed Upland Conifers	Even-Aged	Draft Field Boundary

Habitat Cut: No **Site Condition:**

Prescription remove most over story to release advance pine understory. Retain some well formed oak and pine in canopy for mast and seed production.

Specs: Attempt to protect understory through harvest. Consider bile trail on south east edge of treatment.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable red pine, white pine, jack pine, oak, red maple, aspen.

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

127	61042127-NF	28.9	42220 - Natural Jack Pine	Sapling Poor	17	1-50	NonForestMgt	Brush Cutting	330 - Low-Density Trees		Draft Field Boundary
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Habitat Cut: No **Site Condition:**

Prescription 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,

Specs: 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.

Treatments to be within the established dozer plow line.

Next Step

Treatments:

Acceptable

Regen:

Other

Comment: WLD funds were spent on this stand prepping it for a controlled burn that was never accomplished last entry cycle. A controlled burn at least once

every 10 years is still the preferred treatment method.

If acceptable with FRD could also include adjacent stand 61043056 MC1 with this treatment.

Proposed Start Date: 10/01/2018

156	61042156-Cut	14.9	4130 - Aspen	Sawtimber Well	40	141-170	Harvest	Clearcut with Retention	4130 - Aspen	Even-Aged	Draft Field Boundary
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Habitat Cut: No **Site Condition:**

Prescription retain some widely spaced -well formed oak, pine and maple and harvest remaining stems to regenerate stand. Consider Vasa trail in se corner of

Specs: stand. May want to leave buffer or remove only aspen and hazard trees.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable aspen, red maple, oak, pine.

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

Total Treatment Acreage Proposed: 1066.1

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Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	Dominant Site Conditions											
		With Condition	Not Available		2B	2E	4A	5B	5C	2F	2G	2H	3D	3E	5A	5E
635	388	60	186	Aspen		26		2	33	71		9	105			1
59	54	0	5	Herbaceous Openland						0		0		5		
66	63	0	3	Jack Pine									3			
35	35	0	0	Low-Density Trees					0							
30	2	0	27	Lowland Conifers							27					
6	0	0	6	Lowland Deciduous							6					
6	6	0	0	Marsh						0						
717	169	258	290	Mixed Upland Deciduous	0	32	22	26	178	87		36	150		17	
349	154	109	86	Natural Mixed Pines		0	7	81	21	48			37			
1013	348	560	105	Oak	35	5	150	228	142	11		27	66			0
45	36	0	9	Red Pine					0	9						
321	88	153	80	Upland Mixed Forest		20		76	57	13			62			5
5	5	0	0	Upland Shrub												
3	3	0	0	Urban												
1	0	0	1	Water						1						
28	28	0	0	White Pine					0							
3,317	1,380	1,140	797	Total Forested Acres	35	83	179	412	431	240	33	72	424	5	17	7
	42%	34%	24%	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	3D: Recreational / Scenic values	60	Unspecified	Unspecified	Unspecified	Unspecified
Comments: This site condition could be changed if the conditions change in the future.							
2	Unavailable	3D: Recreational / Scenic values	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

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3	Unavailable	3D: Recreational / Scenic values	19	Unspecified	Unspecified	Unspecified	Unspecified
Comments: would need to buffer vasa trail.							
4	Unavailable	3D: Recreational / Scenic values	33	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Seems like a side loop of the vasa that is not on the official map went through this stand.							
5	Unavailable	3D: Recreational / Scenic values	14	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Available	2E: Road needed	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments: may have terrain limitations.							
7	Available	2E: Road needed	18	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
8	Unavailable	2F: Too steep	33	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Complex and unique stand. Still growing in. Look at next time but keep as AOI as some of the aspen on edges of stand may compliment tsale in adjacent stands.							
9	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	27	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							

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10	Available	4A: No Markets Available for these Forest Products	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
11	Unavailable	3D: Recreational / Scenic values	61	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
12	Unavailable	3D: Recreational / Scenic values	33	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
13	Unavailable	2F: Too steep	8	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Keep as aoa so if stand to west is treated ,aspen could be picked out of this stand.							
14	Unavailable	2F: Too steep	27	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Keep as aoi and consoder working with surrounding stand or leave for diversity							
15	Unavailable	2F: Too steep	13	Unspecified	Unspecified	Unspecified	Unspecified
Comments: consider treating with adjacent stands							
16	Available	2E: Road needed	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments: headwaters of acme creek. Use proper riparian management and buffer vasa trail?							

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17	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	66	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments: look at for pine weave</p>							
18	Unavailable	3D: Recreational / Scenic values	46	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments: pine weave with stand to west</p>							
19	Unavailable	3D: Recreational / Scenic values	42	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments: Single track goes through stand but may be able to work around.</p>							
20	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	19	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments:</p>							
21	Unavailable	3D: Recreational / Scenic values	12	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments: Aspen should come out</p>							
22	Available	2E: Road needed	26	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments:</p>							

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23	Available	5B: Maintain for regeneration purposes	25	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Plant red pine in open areas left after recent harvest. Adjacent stand to be cut and planted.							
24	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	19	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Open up and pine weave. Adjacent stands to be planted.							
25	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	6	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							
26	Available	4A: No Markets Available for these Forest Products	14	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Looks like remnant oak/pine barrens. Would need non-commercial treatment to keep open or fire.							
27	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
28	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
29	Unavailable	2F: Too steep	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

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31	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	12	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
32	Available	2E: Road needed	14	Unspecified	Unspecified	Unspecified	Unspecified
Comments: may be accessed off vasa trail. and worked with stand to east							
33	Unavailable	2F: Too steep	31	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Portion of stand to be treated with adjacent compartment							
34	Unavailable	3E: Easement / lease, non-military (e.g.- Consumers Power red pine, etc)	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
35	Unavailable	3E: Easement / lease, non-military (e.g.- Consumers Power red pine, etc)	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
36	Unavailable	3D: Recreational / Scenic values	4	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Small old hardwood pocket along trail and on slope.							

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37	Unavailable	3D: Recreational / Scenic values	12	2E: Road needed	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	Unspecified	Unspecified
Comments: Hill ground with no current access. Vasa trail on south end.							
38	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	79	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
39	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	36	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
40	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	25	2F: Too steep	3D: Recreational / Scenic values	Unspecified	Unspecified
Comments:							
42	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
43	Unavailable	5A: Not able to obtain desirable regeneration	17	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Large crowned red oak scattered around in stand with pockets of younger aspen, oak, and red maple. Well stocked ironwood and beech saplings in understory. When younger age becomes merchantable may want to harvest this stand. There may be a better chance at getting acceptable regeneration at that time. Harvesting oak at this time will likely just increase ironwood and beech in understory.							

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44	Available	2B: Unknown if access through adjacent landowner(s) is possible	35	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
45	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
46	Available	4A: No Markets Available for these Forest Products	47	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
47	Unavailable	2F: Too steep	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
48	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	29	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
49	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

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50	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
51	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
52	Unavailable	3D: Recreational / Scenic values	23	Unspecified	Unspecified	Unspecified	Unspecified
Comments: access blocked by vasa trail							
53	Available	4A: No Markets Available for these Forest Products	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
54	Unavailable	3D: Recreational / Scenic values	35	Unspecified	Unspecified	Unspecified	Unspecified
Comments: access blocked by vasa trail.							
55	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

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56	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	17	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
57	Available	4A: No Markets Available for these Forest Products	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
58	Unavailable	3D: Recreational / Scenic values	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
59	Unavailable	3D: Recreational / Scenic values	10	2E: Road needed	Unspecified	Unspecified	Unspecified
Comments: Access blocked by Vasa trail							
60	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	24	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
61	Available	5B: Maintain for regeneration purposes	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

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62	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	4	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
63	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	15	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
64	Available	5B: Maintain for regeneration purposes	14	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
65	Available	2E: Road needed	20	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
66	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	28	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
67	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	18	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

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68	Available	4A: No Markets Available for these Forest Products	31	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
69	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	15	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
70	Available	4A: No Markets Available for these Forest Products	62	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
71	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	12	2F: Too steep	3D: Recreational / Scenic values	Unspecified	Unspecified
Comments:							
72	Available	5B: Maintain for regeneration purposes	145	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Young stand developing and forming new first age.							
73	Unavailable	2F: Too steep	49	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

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74	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	13	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Large adjacent area recently treated.							
75	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	44	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
76	Available	5B: Maintain for regeneration purposes	40	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Low quality oak in over story is allowing pine understory to develop. Allow pine to fill							
77	Unavailable	2F: Too steep	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
78	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
79	Unavailable	3D: Recreational / Scenic values	6	4A: No Markets Available for these Forest Products	Unspecified	Unspecified	Unspecified
Comments: Vasa trail on west side. Some steep area. With both these limits, little volume would be available.							

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81	Unavailable	5E: Long-Term Retention	1	3D: Recreational / Scenic values	Unspecified	Unspecified	Unspecified
Comments:							
82	Unavailable	2F: Too steep	9	5C: Delay treatment for age/size class diversity or exceptional site quality	Unspecified	Unspecified	Unspecified
Comments: Steep drain with old pine. Little areas of this could be harvested if nearby.							
83	Unavailable	2F: Too steep	6	5C: Delay treatment for age/size class diversity or exceptional site quality	Unspecified	Unspecified	Unspecified
Comments: Drain that was excluded from adjacent treatment due to terrain and steepness.							
84	Available	5B: Maintain for regeneration purposes	60	Unspecified	Unspecified	Unspecified	Unspecified
Comments: recently harvested stand. Allow new age to form in understory.							
85	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
86	Available	5B: Maintain for regeneration purposes	40	Unspecified	Unspecified	Unspecified	Unspecified
Comments: removing over story would cause unacceptable damage to new age forming in understory.							

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87	Available	5B: Maintain for regeneration purposes	31	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments: Recently harvested. Allow new age to form in understory</p>							
88	Available	5B: Maintain for regeneration purposes	15	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments: stand recently harvested and planted. Maintain canopy for mast and seed production.</p>							
89	Available	5B: Maintain for regeneration purposes	17	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments: Canopy gaps from last harvest are filling in. Let stand develop and second age grow in.</p>							
90	Available	5B: Maintain for regeneration purposes	10	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments: second age is forming since last harvest. Retain existing over story for mast and seed production.</p>							
93	Unavailable	3D: Recreational / Scenic values	0	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments: Small old hardwood pocket along trail and on slope.</p>							
94	Unavailable	3D: Recreational / Scenic values	0	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments: Small old hardwood pocket along trail and on slope.</p>							

Mgt. Unit

Compartment: #Type!

Year of Entry:



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

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

SCA Name	SCA Category	Detail Type	Recommendation	Acres
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Comments



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 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	4123 - Red Oak	Sawtimber Well	27.5	110	111-140	2017: Large red oak- some good quality. Mortality in red oak along north line near sub-division. Possible trespass along this line. Needs investigated. Good bit of storm damage on larger oak and rm after aug 2014 storm. Stocking is variable. May have an easement to this state land through sub-division. If so may want to get in and get some or all the red oak oak and aspen is stand 4
2	4199 - Other Mixed Upland Deciduous	Sawtimber Poor	4.9	110	1-50	2017: Good aspen regeneration but heavily browsed. Scattered red oak and red maple logs with rm,ro,wp poles and saps. TS 069-15. Cut all aspen and damaged timber Salvage of aspen around vasa trail. Left other species unless damaged.
3	4199 - Other Mixed Upland Deciduous	Sawtimber Poor	65.0	80	1-50	Aspen and damaged timber salvaged in fall 2015.
4	4131 - Aspen, Oak	Sawtimber Well	8.0	100	111-140	2017: Aspen is declining. RM and WP under. Storm Damage from 2014. Would be good to clean this up and harvest aspen if access was available. May have ROW through sub. 2007: better site. M.I. vibernum and a little maple coming in.
5	4123 - Red Oak	Sawtimber Medium	34.2	90	51-80	2017: Cut most aspen in salvage harvest. Some retention of aspen pockets along trail. Overall residual stocking is variable as aspen was clonal. 2016 Salvaged aspen after storm damage Aspen was patchy. 2007: A little hemlock, good red oak and aspen, lots of good red oak to release. Maple-leaf viburnum.
6	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	27.4	110	111-140	Lowland Mix along river trib.
7	6119 - Mixed Lowland Deciduous Forest	Sawtimber Poor	5.6	90	1-50	TS# 069-15. Salvage blowdown trees and cut all aspen after Aug 2014 storm. Some aspen left along the vasa trail in this stand. Aspen sprouting in areas but getting browsed heavily.
9	4310 - Pine, Oak Mix	Sawtimber Poor	15.0	100	1-50	2017: Planted red pine mixed with oak sprouts/seedlings/ rm/jp/wp/bc. Red pine looks pretty good. Oak is getting browsed badly at this time. 2007: TS# 097-09. TCR 3/12 Cut back to green marked oak and pine. Cut down to 2" with intention of re-planting red pine after harvest in a weave pattern. FTP C61-599 Planted 5/2013.
11	4131 - Aspen, Oak	Sawtimber Well	4.4	70	51-80	2017: Some blowdown in aspen. SMALL STAND BETWEEN PINE AND CEDAR. LEAVE AS TRAVEL CORRIDOR.
12	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	6.7	90	81-110	2017: Hilly ground. Older pine scattered around. 90 year age class rp has been stagnant for 30 years. Mixed pine ages. WP coming in understory. Not many quality crop trees in oak. Harvested @ 1967. Cut all merchantable aspen, rm, birch 2007: SMALL LOGS AND LOWER STOCKING- LOOK AT NEXT
13	4123 - Red Oak	Sawtimber Poor	23.4	95	1-50	2017: TS# 066-15. Harvested 11/2016. Cut all merchantable aspen and red maple and orange marked. Salvage after blowdown event. 2016: Harvested @ 1967. Cut all merchantable aspen, rm, birch. 2007: 40 YEAR OLD ASPEN CUT. LOOKS FINE.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
14	4123 - Red Oak	Sawtimber Well	31.1	110	111-140	2017: Oak growth has always been slow evidenced from core samples. Marked thinning set up 2009 and sold in 2016. Not harvested yet. Harvested @ 1967. Cut all merchantable aspen, rm, birch This could be a good stand to manage for red oak. Stocking is a bit high and this stand may benefit from ctr. Oak quality is medium to good -better on north facing aspect. Treat with part of stand to east.
15	42110 - Planted Red Pine	Sawtimber Well	19.4	65	141-170	2017: Pine looks fine. Room to grow. Very little understory. TS# 004-89. Cut every third row. TS 094 09. TCR 8/11. Marked red pine for crop tree release. Planted 1952
16	4129 - Mixed Oak	Sawtimber Well	4.9	120	111-140	Oak with RM, WP, Aspen. White pine growing in under. Left as buffer along private property line and a steep side hill.
18	42260 - Natural Pine, Mixed Deciduous	Sawtimber Poor	15.2	85	1-50	TS# 61-015-14. Cut all aspen and marked oak/rm. Completed Fall 2015.
19	4129 - Mixed Oak	Sawtimber Well	35.8	110	111-140	2017: This stand could be marked and produce a good bit of pulp/small logs. Access is not evident. Private access? Would have to seek private access. Factor limit until then. White oak is better looking than red oak. 2007: HEAVY WHITE PINE REGEN IN SPOTS. OLD PINE GROUND. CURRENT OAK STAND IS MEDIUM QUALITY BUT STOCKING IS NOT TOO HIGH. LOOK AT NEST TIME FOR POSSIBLE CROP TREE RELEASE.
20	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	32.9	120	81-110	2017: Pockets of aspen, especially along vasa trail. Let this grow in for now but it could be marked to open up canopy in future entry. 2007:LOOKS LIKE OLD SAVANNAH ON SIDEHILL. IT IS PRETTY COMPLEX AND UNIQUE IN THIS COMPARTMENT. OLDER OAK AND PINE WITH 80 YEAR OLD CLASS GROWN IN.
21	42110 - Planted Red Pine	Poletimber Well	8.5	36	1-50	2017: Wide row spacing through most 12'. Very limby. 40-50% crown ratio. Let stand grow in. Little understory, 2007:25 yr old rp plantation. looks fine at this time.
22	4133 - Aspen, Mixed Pine	Sawtimber Well	22.2	90	111-140	2017: Area along river headwaters and Vasa Trail. Factor Limit for recreation, slopes and Riparian. Large over-mature aspen.
23	4199 - Other Mixed Upland Deciduous	Poletimber Well	17.1	95	81-110	2017: Mix of aspen and red maple in younger age class with older oak, rp,wp. Hilly ground. Let stand grow in and gain volume. Harvested @ 1967. Cut all merchantable aspen, rm, birch 2007: rolling ground but not bad to work. Some areas heavy to ro while others to aspen. A little hemlock and m.l. vibernum. Good ro and aspen. Plant of ro crop trees to release.
24	4123 - Red Oak	Poletimber Well	22.5	95	81-110	2007: Quality red oak that could benefit from release. Treat with stand to west.
25	42260 - Natural Pine, Mixed Deciduous	Sawtimber Poor	18.2	85	51-80	2017: TS# 015-14. Harvested 2015-16. Cut all aspen and marked oak/rm. Left most pine unless damaged. Green marked aspen with dens for retention.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
26	4122 - Oak, Pine	Sawtimber Poor	26.8	90	51-80	2017: Aspen regen heavily browsed. TS# 015-14. Cut all aspen, jp, and orange marked oak,rm,pine. Kept most pine unless damaged.
27	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	9.6	110	111-140	2017: Stand factor limited due to vasa trail and the large surrounding area that was harvested. Aspen is declining in stand and white pine is growing through. Still desirable to get this treat this when it makes sense. 2007: could get some aspen if treating adjacent stand. This would release oak and pine. red pine looks like it should go. Looks stagnant. oak is average to low quality- not real interesting. Stand is going to pine.
28	4199 - Other Mixed Upland Deciduous	Sawtimber Well	4.2	109	81-110	2017: Small old hardwood pocket. Keep for diversity. 2007: some large aspen.. Someone cut some large oak in trespass. There appears to be problems wit the line down the hill. Little pockets of planted spruce and rp in bottom.
30	4122 - Oak, Pine	Sawtimber Poor	69.0	100	1-50	2017: Some areas heavier to pine over story and others to oak. Heavy browsing on aspen regen. TS# 105-14. Harvested 2015. Cut all aspen, jp and orange marked oak and rm. Retained most rp/wp unless damaged.
31	4311 - Pine, Aspen Mix	Sawtimber Well	11.9	80	111-140	2017: Let stand grow in. Some oak sprouts with aspen in the 47 age. Aspen looks good where it has room to grow. Part of stand NW of power line has more oak component. Harvested 1969. Cut merchantable aspen and oak less than 16" stump. Protect advanced pine regeneration.2007: looks like a spec cut in 70's on aspen/rm/jp. Oak and other pine left so now there is various ages of pine with some oak and aspen growing in. It worked alright but it would have been better with less pine because aspen growth was reduced and now pine is trapped,
32	42290 - Natural Mixed Pine	Sawtimber Well	8.1	80	81-110	2017: Nice mixed pinealongVasa Trail. Could be thinned but not high priority. Harvested 1969. Cut merchantable aspen and oak less than 16" stump. Protect advanced pine regeneration. MIXED AGE NATURAL PINE-HEAVY TO WHITE PINE.
33	4199 - Other Mixed Upland Deciduous	Sawtimber Well	5.4	109	111-140	2017: Red oak looks alright. Slopes but could be worked. Would likely not benefit much from thinning. May be best to just leave this small stand for diversity. More of a northern hardwoods mix but heavy to RO with some aspen. 2007:Some younger aspen but most of stand is large nice red oak Some large aspen. SM looks alright but not great. A good red oak site. Could take out some big and CTR other trees.
34	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	16.8	90	111-140	Buffer left along Vasa Trail
35	4310 - Pine, Oak Mix	Sawtimber Medium	71.1	90	51-80	2017: TS# 015-14. Harvested 2016. Cut all aspen, jp and marked oak/rm/pine. Two retention pockets left along The roadway. Heavy browsing on aspen regen.
36	4131 - Aspen, Oak	Poletimber Well	23.8	47	81-110	2017: Good aspen. Let grow in. Harvested 1969. Similar to stand to west but more oak in residual. More oak sprouts in second age as well. 35 year old class in canopy with older oak and pine.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
37	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	9.9	100	81-110	2017: Low quality oak mixed with pine, aspen. Aspen declining. Could get aspen and low quality oak and red maple. Not much volume and assess is unknown. 2007: Could mark and spec to release rp. Aspen should get out. Good bit of rp in various six classes.
39	4129 - Mixed Oak	Sawtimber Well	29.1	100	171-200	2017: Created new stand 156. Had most of the younger aged aspen. This stand could be green marked to reduce canopy and let white pine understory to develop. Could possibly orange mark stand if enough quality could be found. Oak is stagnant and mid quality. 2007: Aspen was patch cut about 25-30 years age. Some was left and some cut so two ages of aspen. Nice clump of hemlock in middle of stand with good regen around. Some larger good quality red oak and some quality red maple. Oak seems to have responded where aspen was removed. A little sugar maple and birch. White pine still growing-red pine decent quality but stagnant.
40	42260 - Natural Pine, Mixed Deciduous	Sawtimber Medium	37.1	90	1-50	2017: First inventory of new acquisition. Aspen harvested out of stand. Estimate Harvest date @1992. Good aspen regeneration in gaps and pockets. Variable stocking of residual canopy.
41	4131 - Aspen, Oak	Poletimber Well	18.5	47	81-110	2017: Big RO/WO scattered in aspen stand. Aspen looks good. Could be harvested but would add more volume if left. A lot of this age class in this area. Harvested 1969. Cut merchantable aspen and oak less than 16" stump. Protect advanced pine regeneration. Similar to stands 33 and 38 but less retention and more aspen in first age. Slightly larger diameter than the other stands.
43	4199 - Other Mixed Upland Deciduous	Sawtimber Well	16.9	120	111-140	2017: Did not find oak wilt issue. Possible site but those trees have blown over and do not see active wilt. Let younger age grow in. Large red oak with maple, aspen and ironwood growing in under. Site is low end hardwood with some sm and bw. 2007: Looks like aspen was cut out leaving ro. Now heavy maple, ironwood, and some aspen When younger age becomes merchantable may want to harvest this stand. There may be a better chance at getting acceptable regeneration at that time. Harvesting oak at this time will likely just increase ironwood and beech in understory. regen. Oak wilt in ro which is nice quality and size. Harvested 1969-70. Cut merchantable aspen and oak less than 16" stump. Protect advanced pine regeneration.
44	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	34.8	89	111-140	2017: Complicated stand. Let younger age grow in. Nice old pine and oak look. Trace of hemlock and beech. Two oak ages 93 + age 47 from sprouts after last harvest. Harvested 1969. Cut merchantable aspen and oak less than 16" stump. Protect advanced pine regeneration. 2007: At least three age classes 120, 80, 37. Large old pine and oak @ 120yr + and 70-80 year age class that was cut resulting in 37 year old oak and maple sprouts as well as rp and wp. Dense regen in places. Canopy calls lost from inventory. Updated in office. Verify canopy at next inventory.
46	4133 - Aspen, Mixed Pine	Sapling Well	52.3	25		2017 Nice aspen stocking and growth. Scattered pine and oak residual along with pockets of pine. TS# 014-89. TCR 7/1992. Cut to 2" but no green marked and no un-merchantable wp/rp south of trail.. 2007: 15 year old aspen cc. left some pine and oak.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
47	42210 - Natural Red Pine	Sawtimber Poor	8.2	85	1-50	2017: Harvested 2016. Cut all aspen + orange marked. Kept most pine unless damaged.
48	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	4.7	85	141-170	2017: Aspen in stand is mature and should be harvested if nearby. 2007: Large red pine - aspen and oak in patches. Red maple seedlings, better looking red oak and aspen.
49	4139 - Aspen, Mixed Deciduous	Poletimber Well	3.3	25	51-80	young aspen stand after harvest
51	4123 - Red Oak	Sawtimber Well	33.5	90	201+	2017: Desirable to thin stand. Good quality red oak. Some good red maple stems. Clean under with a few pockets of wp. No beech scale noted. 2007: A little ash, beech cherry, basswood, ironwood and hemlock. . Better site quality. Some larger good quality red oak. Aspen was cut 25-30 years ago? Lots of birch in spots which is falling out of stand.
52	4130 - Aspen	Poletimber Well	59.1	47	81-110	2017: Good aspen. Scattered pine and oak retention from last harvest. Issues for Vasa Trail in future as this matures. Needs to grow in more at this time but we should try to not let this all get old at once around trail. Consider regenerating aspen away from trail and then when it is necessary to remove old aspen along trail there will be a new age class behind. Harvested 1969-70. Cut merchantable aspen rm, and oak less than 16" stump. Protect advanced pine regeneration. 2007: Red pine super canopy with aspen grown in.
53	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	18.3	80	171-200	2017: Some steep areas. some areas heavier to pine. Could get the aspen and most rm out and mark the rest. It may eventually convert to pine. all is over mature. Some pine is overstocked but due to age will likely remain stagnant. Most pine is older but 50 yr age found. Green mark some rm for retention. 2007: would make nice aspen harvest but pine would need to be protected. older pine with mixed ages of aspen. Some younger oak and pine in aspen. Removing aspen would release pine and oak
54	4131 - Aspen, Oak	Poletimber Well	25.6	50	111-140	2017: Let stand develop until Oak has some logs. Not enough red oak to form fully stocked stand if aspen was removed. 2007: wo aged stand. a good bit of red oak growing in with aspen. old red pine and a few oak left from old stand. Let develop and look at nest time.
55	4131 - Aspen, Oak	Sawtimber Well	59.7	95	111-140	2017: Stand is mature, aspen is falling out. Some storm damage on aspen. Oak is heavier in areas. Some areas heavy to aspen. This stand should be harvested to restart it. Access is uncertain. Consider green marking retention and harvesting remaining stems. Perhaps some orange marked units could be split off where oak is heavier. 2007: Better site. Some sugar maple, ash, beech, basswood. Red oak and aspen on hardwood site.
56	4131 - Aspen, Oak	Sawtimber Well	10.7	70	111-140	Strip of aspen, oak, rm up valley along vasa trail. Heavies aspen is along trail. More oak on NE part of stand. Aspen is mature and will possibly cause issues for trail maintenance in future. Oak is poor quality. Consider removing aspen if nearby, but would impact trail aesthetics.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
57	4133 - Aspen, Mixed Pine	Sapling Well	62.6	27		2017: Good growth on stand. TS# 016-89. Cut to 2" but no green marked. 2007: Young clearcut. Good bit of red pine in canopy and white pine coming in in understory as well.
58	4130 - Aspen	Poletimber Well	98.9	40	81-110	2017: Good height growth 5-6 stick. Could thin oak in stand 60 if adjacent. Consider cutting part of this stand to break up age classes. 2007: NICE ASPEN REGEN FROM HARVEST
59	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	10.6	90	111-140	2017 Hold this until next entry then try to put this together with a treatment in part of stand 52. May be able to build a road across the flat lin stand 40 coming off the powerline. Over-mature aspen is declining. Enough aspen distribution through stand to get good aspen regeneration if harvested. Mark some pine and oak for retention for mast and seed production and harvest remaining stems. Protect smaller pine. Good bit of 8" or less. Buffer Vasa trail. Access may be difficult. 2007: older supercanopy with 80 yr class grown in. red pine looks good. strip between cut on private and cut on state. protect yourn rp and wp.
60	4123 - Red Oak	Sawtimber Well	6.3	95	141-170	2017: Could thin if nearby. Oak is good but overstocked. 2007: This should be thinned. Nice R Oak
62	4126 - White, Black, N. Pin Oak	Sawtimber Well	5.1	90	81-110	2017: Keep for diversity. 2007: Drain left out of last harvest. Most is poor quality oak. WP coming in under.
63	4126 - White, Black, N. Pin Oak	Sawtimber Poor	46.7	90	1-50	2017: Aspen and red maple forming second age in sub-canopy. Scattered oak and pine retention in canopy. Good growth and form on aspen. 2007: TS# 037-99. cut in 2000. cut aspen, rm, ro and wp. left green marked oak and pine although much of it is poor quality. good regen on the rm/aspen. Old burnt pine ground.
64	4133 - Aspen, Mixed Pine	Poletimber Well	24.2	35	81-110	2017: New parcel in state ownership. Looks like aspen and some rm was cut in the early 80's. Good growth and form on new aspen age. Stand 152 has similar treatment but more residual canopy.
66	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	13.9	110	81-110	2017: Factor limit stand due to slopes, access. recreation. 2007: Better RO on north slopes but a fair bit of s. slope in stand. Some hemlock regen. Nice mix and quality on north slopes. More rp regen on s. slopes. Probably can't access as it lies on both slopes off powerline.
67	4199 - Other Mixed Upland Deciduous	Sawtimber Well	24.5	130	141-170	Hilly and steep with poor access. Stand factor limited. Oak is decent quality mixed with pine, maple and aspen.
68	4310 - Pine, Oak Mix	Sawtimber Well	23.4	65	111-140	2017: Good growth on red pine. Most is in 65 age but there is an older age of rp (110) This older rp grew well for 50-60 yrs but is now stagnant. Good rp volume. The ground is rolling but most could be cut and planted or could try seed tree with scarification. Good pine ground. Not sure of access. Could work with stand 702007: Most trees have room to grow but could mark oak and pine and spec cut aspen and red maple. Could work with stand 70.
69	42290 - Natural Mixed Pine	Sawtimber Well	4.3	90	51-80	jack pine has mostly fallen out of stand. Big poorly formed white pine is the dominant tree. Second age (40) of pine, red maple etc. Some oak poles growing through.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
70	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	13.7	98	81-110	2017: Mature stand. Could cc with retention and plant rp or could seed tree with scarification. Access is unsure. Could treat with stand 68. 2007: different ages of rp. Aspen could come out and some marked oak. Move towards oak/pine. White Pine coming in.
71	4123 - Red Oak	Sawtimber Medium	21.2	95	1-50	2017: Scattered oak and pine over story with new age forming in sub-canopy. Aspen regen has been set back by browsing. Few-none oak stump sprouts remain. Pushing under story to red maple. Blowdown in oak retention.
72	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	6.8	90	111-140	2017: Good aspen mixed in stand-more in north end. Some large weeviled white pine. Would be good to get this aspen out at some point. Access is difficult due to road situation and large adjacent area was just harvested. 2007: mostly w pine in this stand with a little aspen
73	42200 - Natural White Pine	Sawtimber Medium	15.6	90	81-110	ts# 61-108-11. harvested aspen and red maple fall/winter 2016.
74	4129 - Mixed Oak	Sawtimber Well	9.7	110	111-140	Vasa Trail along west boundary. rolling ground with some steep areas. lower site quality but not terrible. Areas with poorly formed off site oak going to wp.
75	4124 - Red with White Oak	Poletimber Well	15.6	120	111-140	2017: Low quality over stocked stunted oak on south slope. Stand is converting to white pine. Consider removing most oak over story to encourage pine development. Reduce ba to @40. 2007: Thick wp regen. Similar to stand 76 but with heavier regen.
76	4124 - Red with White Oak	Sawtimber Poor	8.1	110	1-50	2017: Fair-good regeneration of aspen/rm in second age. White pine in understory showing good growth after release.
78	42250 - Pine, Oak	Sawtimber Well	27.3	80	141-170	2017: Poor quality oak with wp poles, sap, and seedlings under. Factor limited for slopes. Let stand succeed to pine. 2007: Going to wp. Aspen is going out. Hilly, some is too steep to treat.
80	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	12.8	110	81-110	2017: Nice natural looking pine. No flat ground but some areas could be harvested. May be difficult to regenerate but seed tree with scarification may work. Good bit of rp seedling on skid trail in adjacent harvest. Some current pine understory but most is wp. 2007: Mixed age pine and oak. Has seed tree look in places. Nice rp but steep in spots. look at next time
81	4133 - Aspen, Mixed Pine	Sawtimber Well	9.3	90	111-140	2017 Factor Limit stand for slopes and riparian. 90 yr age aspen and rp on slope.
82	42200 - Natural White Pine	Sawtimber Poor	12.8	90	1-50	TS# 61-108-11-01. Cut all aspen/rm. Harvested 12/2016
83	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	12.4	90	111-140	2017: Would be good to get the aspen out of this stand before it is lost. Would give good release to remaining trees and create regeneration pockets. may want to delay harvest to allow adjacent areas that were recently harvested to develop. 2007: mid quality oak mixed with rp and aspen.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
84	4124 - Red with White Oak	Sawtimber Well	15.7	110	111-140	2017: Low quality oak with wp coming in under.
85	4124 - Red with White Oak	Sawtimber Well	18.3	110	111-140	2017: Agree with prior inventory. Oak is overstocked but low quality going to wp. Surrounding aspen recently harvested. 2007: Oak /pine stand with aspen dominated stands surrounding it. Keep this for diversity. Oak is low to mid quality with heavy white pine understory. If it as opened up, white pine would come in. Keep for now and regenerate surrounding aspen.
86	4311 - Pine, Aspen Mix	Sawtimber Well	11.9	75	111-140	2017: Most jp has fallen out of stand. Should harvest next entry. Let adjacent harvest area grow in. 2007: Some of the red pine is very nice at 60-65 years and 14-16" dbh. Aspen is good sized and looks older but seems also to be 65 year old. Some along slope is smaller diameter but generally log sized.
87	42210 - Natural Red Pine	Sawtimber Well	8.5	85	141-170	2017: Pretty steep in spots. Some areas of stand could be harvested if nearby, but leave the steep areas. The NW part of stand was treated with stand 150. aspen and red maple sprouts under pine. 2007: Bowl with red pine and a little aspen and white pine. Maybe it was planted? Older age is 100 and it has been stagnant the last 40 years. It has been through fire. Could harvest but could also keep as relic old pine stand.
88	4310 - Pine, Oak Mix	Sawtimber Poor	63.6	110	1-50	2017: Second age forming in sub-canopy. Aspen regen has suffered from browsing in areas but some parts have robust regeneration. Areas with wp, rp, jp seedlings. Heavy sedge in open areas. Few oak stump sprouts. Most has been browsed off. TS# 098 09. Harvested 2010-2011. Cut back to green marked retention to regenerate stand. Stand was heavy to aspen with white pine, red pine, oak and red maple.
89	42290 - Natural Mixed Pine	Sawtimber Poor	10.5	90	1-50	TS# 108-11. Cut to 2" but no red pine, white pine or oak. Left buffer along roadside.
90	4122 - Oak, Pine	Sawtimber Poor	24.7	90	1-50	TS# 108-11 TCR 12/16. Chip harvested to 2" but no red pine, white pine or oak.
91	4131 - Aspen, Oak	Sawtimber Well	4.8	90	111-140	2017: WOULD BE DESIRABLE TO GET THIS ASPEN OUT BEFORE IT IS LOST. ADJACENT AREAS RECENTLY HARVESTED. MAY WANT TO DELAY FOR SEVERAL YEARS AND THE COULD HARVEST WITH ASPEN IN STAND 83 AND 86?
92	4130 - Aspen	Sapling Well	32.7	27	51-80	2017: Part of TS#017-89. Cut to 2" but no RP. Patchy aspen regeneration with rp patches and single trees scattered through. 2007: Young aspen regen with scattered mature rp left in cut.
94	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	9.4	90	111-140	2017: Steep areas in bowls excluded from adjacent timber treatment. Factor limited for slopes. Two small seasonal ponds in bottom.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
96	4129 - Mixed Oak	Sawtimber Well	16.3	110	111-140	2017: Aspen is declining. Red pine grew well for 60-70 yrs. but is stagnant the last 30 years. Most aspen is on north and west edges. Good bit of wp understory. Heavy in spots. Most of the ground lays good. 2007: Pine is coming in good in understory. Oak is low quality but a bit better around the aspen.
97	4126 - White, Black, N. Pin Oak	Poletimber Well	14.9	80	81-110	2017: Lower quality -not enough crop trees to thin unless desirable to keep oak stand. Vasa Trail adjacent to stand. May want to harvest and plant red pine in weave pattern. Flat ground. 2007: Red oak from stump sprouts. Not bad looking stems. May be worthwhile to CTR oak-cut aspen and rm. Keep ba up to 80-90 to keep epicormic branching down.
98	4130 - Aspen	Poletimber Well	16.9	27		2017: Looks fine, good growth. TS# 017-89. TCR 1/1990. Cut to 2" 2007: young aspen clearcut.
99	4311 - Pine, Aspen Mix	Sawtimber Well	8.6	75	111-140	2017: STAND FACTOR LIMITED FOR SLOPE. Some big old pine scattered around in stand. 2007: mix of 65/100 year old rp and 80 year old aspen. It's hill and some is a bowl with a small pond in the middle.
101	4124 - Red with White Oak	Sawtimber Well	28.5	100	111-140	2017: Hold this for now. Harvesting adjacent stand. Medium quality oak stand. A little wp understory but wp may move in to stand if canopy is reduced. Aspen is patchy in stand and declining. Good bit of aspen in piece of stand NW of Vasa Trail. May be possible to thin this oak (despite age) to keep a stand growing with a heavier oak canopy. This stand looks less stagnant and stressed than surrounding oak stands. 2007: could spec aspen and red maple and ctr oak.
103	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	31.0	110	51-80	pine.aspen.oak,rm on slopes and drain.
104	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	10.3	90	111-140	2017: Stand between two aspen harvests. Private land on east. Various aspen ages in stand with logs, poles and saplings due to influence from adjacent stands. Very good growth on scattered pine in stand. Younger age classes of pine also in stand. Keep this stand for age diversity and travel corridor. Older aspen will likely fall out of stand. 2007: older supercanopy with 80 yr class grown in. red pine looks good. strip between cut on private and cut on state. protect yourn rp and wp.
105	4124 - Red with White Oak	Sawtimber Well	23.2	110	111-140	2017: Good area to harvest stagnant oak and plant red pine. Ground lays good. Little rm/aspen in stand. Low quality small log/pole oak with a light wp understory. Little quality to work for. Could harvest and plant red pine. Ground lays decent for pine management. Low value. Consider putting together with adjacent treatments. 2007: small log/pole oak. stagnant. Could be released but not interesting. mid quality.
106	4124 - Red with White Oak	Sawtimber Well	5.9	110	51-80	2017: lower stocking than surrounding oak -somewhat better stocking but still average. White pine understory is lighter than surrounding area but still present. Stand was likely thinned with expectation that wp would form in understory but it has not come in much. 2007;Has been cut recently. Looks like wp was cut out to release oak. Better looking red oak. Not much needed now.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
107	4310 - Pine, Oak Mix	Sawtimber Well	9.2	95	111-140	2017: Mixed ages of pine. Wp saps and poles coming in under. Stocking is not bad. May want to get aspen out if close. 2007: Mixed age pine/oak/aspen. Aspen Declining Pine could be marked or kept for next entry
108	4122 - Oak, Pine	Sawtimber Poor	59.2	110	1-50	2017: Poor quality oak over story with mixed pine advancing in understory. Wp and JP still filling in gaps in canopy. Good growth on second age. Pockets of aspen regeneration. Unfortunate amount of poor quality oak in over story. Too much damage to advanced regeneration would result if this was removed at this time. Unusual amount of natural red pine poles and saplings. 2007: Recent harvest cut all aspen. jp, rm.TS# 014-99. TCR 2/2001. Left oak and rp,wp. Good jp and wp regen in bigger openings. Some good aspen clones and some oak regen working through but it is getting browsed heavily.
109	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	80.9	110	81-110	2017: some steep areas in stand. Generally lower quality oak very variably mixed with red pine, white pine, red maple, aspen, Good bit of wp in understory with lighter rp and rm. Red pine grew well but has been stagnant for 25 years. 2007: Stand to east is orange marked. Some nice ro and rm in places. Some areas of lower quality and stocking. This stand is quite variable. would really have to mark in the spot.
110	4130 - Aspen	Sapling Well	35.6	27		2017: Aspen sapling/pole stand. Looks like all the pine was left in this stand at last harvest. Scattered log sized and clumps throughout stand. Most of the aspen is well stocked sapling with some small poles. Some open areas. . TS# 017-89. TCR 1/1990. Cut to 2" but do not cut any non-commercial rp understory. 2007: 17 year old aspen regen from harvest
111	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	14.7	110	51-80	2017: Hold for now. Look at next entry. Low quality oak with wp/rp (poles/saps/logs) Pine looks good on this site. Unusual amount of red pine regeneration. Older aged red and white pine scattered around may have been seed source. 2007: poor quality open grown oak and aspen in shallow bowl and part on ridge. Aspen going out.
112	4126 - White, Black, N. Pin Oak	Sawtimber Well	28.0	90	81-110	2017: Let wp fill in understory and remove most over story in future entry. low quality oak with wp forming in understory. More wp under in north end 20-30' height. Could reduce oak in over story to allow pine to advance in stand or southern part of stand that has less advanced wp understory could be harvested and planted to rp. Red pine looks good in this area. . 2007: pole-smut buffers along trails. Lower quality red/pin oak but white oak looks pretty good. Look at next time for release.
113	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	115.9	90	111-140	2017: Consider harvesting part of this stand this entry. Retain some well formed oak and pine but remove most over story to allow stand to convert back to pine. May get some oak stump sprouting with red maple and aspen in less amounts. Leave un-cut buffers along trails. Lower quality oak. Mix of logs,poles,saps. Stand is converting to pine. Fair amount of rp poles/saps in areas. Stand composition varies. Single track,fat tire trail, vasa. 2007: 75-80 year old oak sprouts. Areas with heavy white pine regen.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
114	4124 - Red with White Oak	Sawtimber Well	23.5	110	81-110	2017: Poor quality stagnant oak with a little wp understory. Looks like rm and aspen cut out around 1990. Some older aspen scattered around in stand but pockets of 27 yr old regeneration. Fat Bike Trail?
115	42250 - Pine, Oak	Sawtimber Poor	39.8	80	1-50	2017: Some rm, aspen and oak sprouts but not a lot of new pine seedling evident yet. The pine saps and poles that were left from last harvest look fine. TS# 090-09. TCR 11/11, Cut back to scattered pine and oak overstory. Quite a bit of wp in understory and a good amount made it through harvest. Heavy snowfall March 2012 may have done a lot of damage to understory pine.
118	4310 - Pine, Oak Mix	Sawtimber Well	64.7	110	81-110	2017: Heavy wp understory. Consider seed tree harvest on all or part of this stand or cutting all merchantable or 6" dbh+. Allow this stand to start over. Oak is low quality. Quite a bit of snow damage on understory 2007: Interesting amount of rp regen @ 20-30 yr old. better looking red pine. Found corners-two in one place. WP regen heavy in places
119	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	12.8	110	51-80	2017: Small log/pole sized oak with some pine, aspen and red maple. Not much quality. Some wp understory and a little red pine. Fat bike trail or ski trail? Riley's Loop. Could be marked to remove low quality and aspen, most red maple. Not much quality to work with. Cut and plant? 2007: could regenerate aspen or hold for later.
120	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	2.4	90	141-170	2017: small lowland mix inclusion
121	4310 - Pine, Oak Mix	Sawtimber Medium	37.7	110	1-50	2017: Let stand develop. Look at nest entry. Consider removing some or most remaining over-story as in a seed tree/shelter wood harvest. Stand will likely continue to fill in with white pine with some red pine, aspen, rm and oak. Consider ski trail-Riley's Loop? and bike trail-fat tire? 2007: Younger age classes of rp 15-30 yr. Suppressed older pine and oak. Lots of wp regen but still workable. Old grade with bike path? in stand.
123	42250 - Pine, Oak	Sawtimber Medium	51.6	100	51-80	2017: Complicated stand. Variable over story stocking with heavy wp understory. Considerable snow damage in understory wp making traversing difficult. May be desirable to try to get some of the over story removed to allow new stand to develop or may need to let this stand grow in. Oak in stand is low quality. TS# 014-99. TCR 2/2001. Cut all aspen, rm, jp and oak 18"+. 2007: Some jp, aspen and rm cut out of this stand recently but very patchy. Looks like strips were cut in places. Single track goes through stand and there's a bench. Pine and oak residual is going heavy to white pine understory in places. Some nice rp and wp left behind. Adjacent stands are filling in very fast with jack pine and wp.
124	42220 - Natural Jack Pine	Sapling Medium	36.8	27	1-50	2017: Jack pine with wp/rp/oak/rm. Decent stocking in most areas. Scattered oak and pine retention. 2007: cut in 1990. TS# 021-89. Cut to 2". Planted 1990 rp and some jp for frost pockets? Filling in pretty well. wp, jp, a little rp, oak, aspen. Bowl with moderate slope. Not heavy regen but decent.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
126	42290 - Natural Mixed Pine	Sawtimber Medium	40.7	110	51-80	2017: Let stand develop. Harvest would do excessive damage to new age in under story. Very thick understory of brushy oak with thick wp, rp and rm with pine/oak log/pole over story. Unusual amount of rp regeneration. May be desirable to remove most over story to let understory develop but may cause excessive damage to younger age classes. TS# 031-89. Cut to 2" but only orange marked wp/rp. Protect pine understory. TCR 2/1990. 2007: Has been cut with pine and oak residual. Nice regen. some rp but most is wp. Lots of nice pine is trapped by regeneration.
127	42220 - Natural Jack Pine	Sapling Poor	28.9	17	1-50	2017: Frost influence on stand. Rolling terrain. Pockets of jp regen with a little wp, rp, Pin and white oak, red maple. Scattered rp/wp/oak seed trees. Better oak regeneration on north end of stand. TS# 035-99. TCR 11/2000. TS# 021-89. TCR 12/92. Cut to 2" . 2007: Not much regen. Still has some seed trees so might still develop but consider planting rp or jp in openings.
128	4122 - Oak, Pine	Sawtimber Medium	34.2	110	51-80	After last harvest , aspen, red maple, hazelnut and a less amount of oak forming new age class. Many wp saps /seedlings and poles left after last harvest along with some rp poles. Multi-aged stand developing. Good bedding cover. Let stand grow in.
129	4139 - Aspen, Mixed Deciduous	Sapling Poor	9.4	6	1-50	2017: Converted canopy call to sapling stand formed after harvest. Good regeneration in most areas. More red maple and less aspen than expected. Residual oak and pine log and pole size trees scattered around stand.
130	4124 - Red with White Oak	Sawtimber Well	41.7	100	111-140	2017: South of Supply Road-RO from stump sprouts. Thinning would likely not have much benefit. Would likely further encourage wp understory to develop and advance and start new rm sprouting in understory. Multi stemmed trees would likely cause some larger canopy gaps if this stand is thinned. Red oak does look stressed. Aspen in scattered smaller clones and mature. North of supply road-poor quality oak with a little aspen. Would be ideal area to harvest and plant red pine. Fat bike trail? There is not a lot of wp at this time. 2007: Some nice ro logs. Going to wp, rm. Could crop tree release and cut some bigger red oak, or leave it for now. Broken increment borer.
131	4130 - Aspen	Sapling Medium	27.8	6	1-50	2017: Good aspen/red maple regeneration from sprouts after harvest along with wp saps and poles left after harvest. Calling this sapling aged stand as canopy. Scattered logs sized oak pine and red maple <10 ba, left as retention from last harvest. Hazelnut sprouts in numbers. Heavier aspen component on nw block. Neighbors are cutting and maintaining trails through new regeneration.
132	42250 - Pine, Oak	Sawtimber Poor	16.8	115	1-50	2017: Open areas from last harvest filled in with JP, WP, Oak. Variable overstory stocking. Some very open areas have heavy jp/wp regeneration, especially along the east edge. Stand should develop into mixed pine with oak. Part of TS# 014-99. TCR 2/2001. Cut all rm, aspen, jp. 2007: open seed tree look with rp and oak retained from last harvest. Area had heavy jp and jp seeding in pretty well.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
133	4191 - Mixed Upland Deciduous with Conifer	Sapling Medium	49.2	27	1-50	2017: Good growth and stocking in most areas. Some low stocked areas left. Most oak past browse height. Should grow in to nice mixed stand. TS# 022-89. TCR 12/1989. Cut to 2" but do not cut green marked or non-commercial white or red pine understory. 2007: Final Harvested 15 years ago with widely spaced oak left as residual. Not very good regen at this point. Oak is starting to escape browsing. Jack pine regen is scattered and bushy. Some aspen clones regenerated and some spots with thicker pin oak regen. Aspen regeneration and younger age class counted as canopy.
134	4130 - Aspen	Sapling Well	2.4	18	Immature	2017: . TS# 013-98. TCR1999 Cut to 2" but no red pine or green marked. Stand looks fine. 2007:Recent harvest good regeneration aspen
135	4126 - White, Black, N. Pin Oak	Sawtimber Medium	31.1	120	1-50	2017: Part of TS@ 014-99. TCR 2/2001. Cut all jp,rm, aspen. Scrubby regen in pockets of jp,rp,ba,bc,rm. May want to consider getting more overstory of but the understory development is not encouraging for the development of a new stand with decent stocking. This stand could possibly be harvested and trenched and planted. It is on the edge of this possibility. Some natural red pine is trying to grow into this stand. 2007: Previously harvested with oak, red pine and white pine left and jp, aspen, rm cut. Oak regen is developing. Look at next time to remove some canopy - too much left last time.
136	4122 - Oak, Pine	Sawtimber Medium	30.7	100	51-80	2017: Various ages of rp/wp/oak. Pine is growing through in canopy gaps. Oak is low quality. Many pockets of poles/saplings in stand. Not well described as a "log" stand. Will make a nice pine dominated mixed age stand in future. TS# 014-99. TCR 2/2001. Cut all aspen, rm, jp. 2007: Heavy white pine regen in places. Jack pine, aspen and red maple cut already.
137	42290 - Natural Mixed Pine	Sawtimber Well	4.6	70	51-80	2017: Steep side hill with oak and pine. Factor Limit due to steepness.
138	4191 - Mixed Upland Deciduous with Conifer	Sapling Poor	38.8	3	1-50	2017: Oak and maple getting browsed heavily. RP is growing well. A good bit of WO from seed and sprouts along with PO. Some aspen clones -heavier on the east side. . Should develop into diverse stand. TS# 092-09. Planted spring 2013. Cut back to scattered oak and pine. Planted red pine in weave pattern 5/2013. Hybrid aspen planted into stand in ne part on an old well site 1978.
139	42290 - Natural Mixed Pine	Poletimber Medium	24.0	16	1-50	2017: Move canopy call to sapling stand. Residual scattered oak and pine over story and wp poles. A good number of oak sapling and poles were also retained from last harvest. More oak and wp retention on the east/south part of this stand. The north/west side has heavier jp regen and less canopy from last harvest. Stand best described as sapling stand but complicated by residual log/pole canopy. 2007: Recently harvested TS# 014-99. TCR 2/2001. Cut all rm, aspen, jp. Areas that had heavy jp have fair/good jp regen. Some oak is coming through but most is browsed. There is a 20? year old white pine layer that forms second canopy with some oak and red pine. Both this layer and older residual counted in canopy layer. Seedlings counted as sub canopy.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
140	4122 - Oak, Pine	Sawtimber Well	6.4	130	51-80	2017: Part of TS# 014-99. TCR 2/2001. Cut all rm,jp,aspen. JP is falling out of stand. Oak with RP?WP mix on flat and side-hill. Oak coming in under with some wp. Not very interesting. . 2007:Small stand . Not much like this in this area. Leave unmanaged for now.
142	4310 - Pine, Oak Mix	Sawtimber Well	5.4	100	81-110	2017: North Facing slope with larger red pine, aspen and oak. Some blowdown pockets on east end of stand. Recommend letting aspen fall out of stand leaving red pine and oak on this slope. 2007:Side slope on drain. Fairly steep but seems workable. Would come back good to aspen. Could treat with stand to SE. Could just leave it on slope to get big? Looks like it was included in last sale but was left.
144	4126 - White, Black, N. Pin Oak	Sawtimber Well	17.3	120	51-80	2017: Access not determined. Part of this stand may have been involved in TS# 014-99. TCR 2/2001. Cut all aspen, rm, jp. Parts of this stand was not involved along south edge. Stand looks like a good candidate for harvest and re-plant to pine. Aspen may cause competition in places. Some well formed pole sized white oak would make good retention along with a few of the large crowned wolfy oak. 2007: Aspen and jp declining. Some younger oak and old wolfy trees. Red pine looks good.
145	4126 - White, Black, N. Pin Oak	Sawtimber Poor	11.3	120	1-50	2017: TS#014-99. Cut all jp,rm,aspen. Stand is filling in with JP,Oak, WP,RP,Aspen. 2007: could stick in rp or leave to fill in eventually.
146	4130 - Aspen	Sawtimber Well	4.5	80	81-110	2017: Storm damage 2014. This area was not salvaged except for a little aspen along trail.
147	4191 - Mixed Upland Deciduous with Conifer	Poletimber Medium	35.9	38	1-50	2017: Harvested 1979. Not sure how this was specked. Cut aspen, oak pulp and logs, pine pulp and logs ST 146, 147 and C43 St 94 and 76 were all involved in this treatment.Similar to stand 151. Hasn't been harvested -savannah like ground. encroaching cherry and jp. Consider cleaning up with non-commercial harvest. older oak in sub-canopy (second age) but younger age used for canopy call.
148	4139 - Aspen, Mixed Deciduous	Sapling Poor	3.4	6	1-50	2017: Aspen and rm regeneration after harvest. Aspen heavily browsed and stunted. RM has advanced. Scattered mature oak and pine retention from last harvest. TS 60-010-11-01. TCR 2010. This small stand in C42 was cut with sale in C41. Expect new age of aspen, oak, maple and pine.
149	4131 - Aspen, Oak	Sawtimber Well	3.1	90	111-140	2017: Mature aspen strip left on west side of vasa trail. East side was harvested. This should be harvested if possible.
150	4122 - Oak, Pine	Sawtimber Poor	126.3	110	1-50	2017: Red maple and aspen sprouts forming new age in sub-canopy. Browsing on aspen and oak has set back regeneration and pushed new age more towards rm and wp. Most wp in understory is what was retained from harvest. Thicker pockets of wp saps in places. Some new wp seedlings coming in but not a great amount. Rp seedlings on skid trails. More red pine seedlings than normally seen. Residual stocking in canopy is variable.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
151	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	5.5	110	111-140	2017: Let pine grow in. A lot of wp under-poles, saps, seedlings. 2007: Drain with some steep areas. lower site quality but not terrible. Areas with poorly formed off site oak going to wp.
152	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	13.5	85	81-110	2017: First inventory on new parcel. Looks like aspen and some rm cut out in early 80s. Stand 64 had similar treatment but this stand has more residual over story. Aspen diameter is variable 2- 8" dependent on over story density. Good bit of wp understory. Called aspen in canopy.
153	42260 - Natural Pine, Mixed Deciduous	Poletimber Medium	7.3	85	81-110	2017: Drain area left out of adjacent timber treatment.
156	4130 - Aspen	Sawtimber Well	10.1	40	141-170	2017: New stand split off of stand 39. This part is heavier to 40 yr class aspen. Could be re-started or grown into future. 2007: Aspen was patch cut about 25-30 years age. Some was left and some cut so two ages of aspen. Nice clump of hemlock in middle of stand with good regen around. Some larger good quality red oak and some quality red maple. Oak seems to have responded where aspen was removed. A little sugar maple and birch. White pine still growing-red pine decent quality but stagnant.
157	4199 - Other Mixed Upland Deciduous	Sawtimber Well	0.0	109	81-110	2017: Small old hardwood pocket. Keep for diversity. 2007: some large aspen.. Someone cut some large oak in trespass. There appears to be problems wit the line down the hill. Little pockets of planted spruce and rp in bottom.



Stand	Cover Type	Acres	Managed Site	General Comments:
10	3303 - Mixed Low Density Trees	1.7	No	Some junk and fire pits. Clumpt of bta in middle. Sumac and oak seedlings and saplings heavily browsed. Trace of LBS, skw, sjw, milkweed, rubus. Scattered rye. Hill climbs with small amount of erosion.
17	110 - Low Intensity Urban	1.5	No	Bunker Hill Rd and road shoulder.
29	3105 - Mixed Upland Herbaceous	1.5	Yes	Utility ROW.
38	3105 - Mixed Upland Herbaceous	20.4	Yes	
42	623 - Emergent Wetland	0.8	No	Small remnant bog
50	3105 - Mixed Upland Herbaceous	12.2	Yes	Strawberry, yarrow, various forbs, aspen and oak seedlings.
61	3303 - Mixed Low Density Trees	1.0	No	Frost pocket. BTA encroachment. Deer browsed bta suckers. Log bc, bb, wintergreen, sedges, scattered pine, bracken, poverty grass. Occassional sweetfern and juneberry. Nice conifer pocket on sw end for cover. Also a small vernal pool just off south edge.
65	3303 - Mixed Low Density Trees	3.1	No	Scattered pole and sapling BC and even some logs. Occassional juneberry, autumn olive, honey suckle, and strawberry. Old RR grade.
77	330 - Low-Density Trees	19.9		TS# 61-108-11. Cut to 2" excluding green marked oak and pine. Harvested 12/2016
79	6239 - Mixed Emergent Wetland	4.1	No	Also found iris, willow shrub, low water. Large log wp and rp along perimeter and jp snags.
93	3105 - Mixed Upland Herbaceous	4.5	No	Old well pad portion mostly sand and skw (occassional LBS). Junk pile and orv damage. Strawberry, rice grass, sedge, and juneberry.
95	3201 - Sweet Fern	1.4	No	SJW, skw, hoary alyssum. Near oak and young aspen. Exposed sand. Some truck use. Found one spruce seedling and some mint.
100	6239 - Mixed Emergent Wetland	1.3	No	Shrubby St. John's wort, shrub sp, thistle sp, snags, one clump of LBS, asters.
102	330 - Low-Density Trees	7.5	No	In a kettle depression. Old RR grade west of 2 track. Witch, bb, cladonia, LBS, juneberry, juniper, trace of toher grass spp., sjw. Old stumps with fire scars. Scattered pine saplings and occassional seedling. Overall well vegetated. Badger excavation. This opening is divided into 2 lobes by ridge with rp, bta, and o. Dry sedge meadow on west side.
116	3201 - Sweet Fern	2.0	No	Several dead oaks along edge. Intersection of several 2 tracks. Possible old RR grade.



Stand	Cover Type	Acres	Managed Site	General Comments:
117	3302 - Low Density Conifer Trees	1.7	No	Occassional skw. Been used for shooting clay targets.
122	3103 - Rubus-Fern	1.5	No	Scattered ro seedlings, milkweed, LBS.
125	3105 - Mixed Upland Herbaceous	19.0	Yes	Utility ROW.
141	110 - Low Intensity Urban	1.7	Yes	Active well site.
143	3201 - Sweet Fern	1.7	No	
154	500 - Water	0.5	No	2017: small seasonal pond in bowl
155	500 - Water	0.3	No	small seasonal pond in bowl