



Compartment Review Presentation

Traverse City Forest Management Unit

Compartment 61138

Entry Year 2018

Acreage: 1,889

County Kalkaska

Management Area: Manistee River Valley

Revision Date: 2016-05-07

Stand Examiner: Paul Roell

Legal Description:

T25N R5W, Sections 7, 8, & 9

Identified Planning Goals:

This compartment is part of the Manistee River Valley management area (MA). Management will provide timber products; maintain or enhance wildlife habitat; and provide for forest-based recreational uses. Timber management for this 10-year planning period includes continuing aspen management to maintain early successional habitat for hunting and other wildlife-related recreational opportunities; increasing regeneration of oak; and focusing on balancing the red pine age class structure through final harvests and re-planting. Expected trends within this 10-year planning period are increased wildland/urban interface and a need to restore barrens communities through prescribed fire; and invasive plant control.

Soil and topography:

The topography in this compartment ranges from flat to slightly rolling. Poor, excessively drained, sandy soils are found in much of this part of Kalkaska County.

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

The entire compartment and much of the surrounding compartments are contiguous state forest land. There are oil and gas facilities within this compartment and it also has been leased to the military for training.

Unique Natural Features:

Archeological, Historical, and Cultural Features:

none

Special Management Designations or Considerations:

This compartment is part of a 20-year lease that has been negotiated with the Department of Military Affairs for use of the area by the Michigan National Guard for troop training. All land management decisions regarding this land base are made by DNR. Information regarding our land management activity is exchanged with the military, so that training conflicts do not arise.

Watershed and Fisheries Considerations:

No water bodies in the compartment.

Wildlife Habitat Considerations:

Nearly all of Compartment 138 is irregular ice-contact ridges with few kettle lakes and excessively drained loamy sand soils. The landscape is steep and irregular with the greatest relief being in the northwest corner where this LTA meets a broad, flat outwash plain. Large stands of pole and mature oak are found throughout this area, with small aspen inclusions being common. Aspen and northern hardwood types are secondary with small scattered stands of pines. Non-forested openings dominated by grasses, forbs, shrubs, and poorly stocked trees are also found here and are important features for wildlife.

Wildlife priorities include regenerating oak in mature stands, increasing the aspen component in oak stands, promoting age diversity in aspen stands, and maintaining openings where removing woody encroachment manually, mechanically, or through prescribed burning would be beneficial. A mix of mature oak, multi-aged aspen, northern hardwoods, forest openings, and pine types benefits a variety of wildlife species. Oaks, beech, and other mast producing species produce high quality food for white-tailed deer, black bear, tree squirrels, raccoon, wild turkey, ruffed grouse, and a variety of song birds and small mammals. Special concern should be given to maintaining these important mast producers. Augmenting mast production with a variety of native shrubs and trees should be considered as well. Regenerating oak stands while promoting aspen inclusions will increase species diversity in a compartment dominated by mature oak, and assure the

eventual replacement of the current mast producing trees. Occasional gaps in regenerating stands should be acceptable for providing plant diversity, an edge component, and mimicking a fire driven landscape. Assuring a diversity of age classes among adjacent aspen stands will increase age and structural diversity, and promote species diversity throughout the compartment.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of ice-contact outwash sand and gravel. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift is the Mississippian Michigan Formation. The Michigan is quarried for gypsum elsewhere in the State. A gravel pit is located in Section 3 and potential is good. The Garfield 8 Field is located in the Compartment. The field produces from the Devonian Richfield and the Ordovician PdC. Most of the State's minerals are leased.

Vehicle Access:

Adequate vehicular access appears to be available with the road system that is already in place. Roads are heavily used in the summer by the military during maneuvers in this compartment. New roads developed for timber harvests will be closed upon completion of the sales.

Survey Needs:

Lands surrounding the compartment are all state owned and it appears that all the necessary survey corners are already in place.

Recreational Facilities and Opportunities:

There are no designated trails in this compartment (T.N. 1/26/16).

Fire Protection:

The greatest difficulty with fire control in this compartment is with the response time. Heavy equipment is about 45 minutes away. Fortunately, there is a lack of volatile pine fuels in the area of this compartment so a catastrophic fire is unlikely. The terrain may cause the suppression crews some difficulty.

Additional Compartment Information:

The following reports from the Inventory are attached:

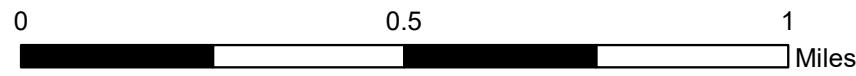
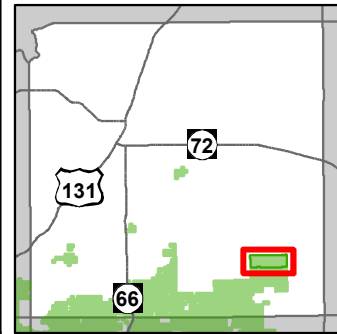
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

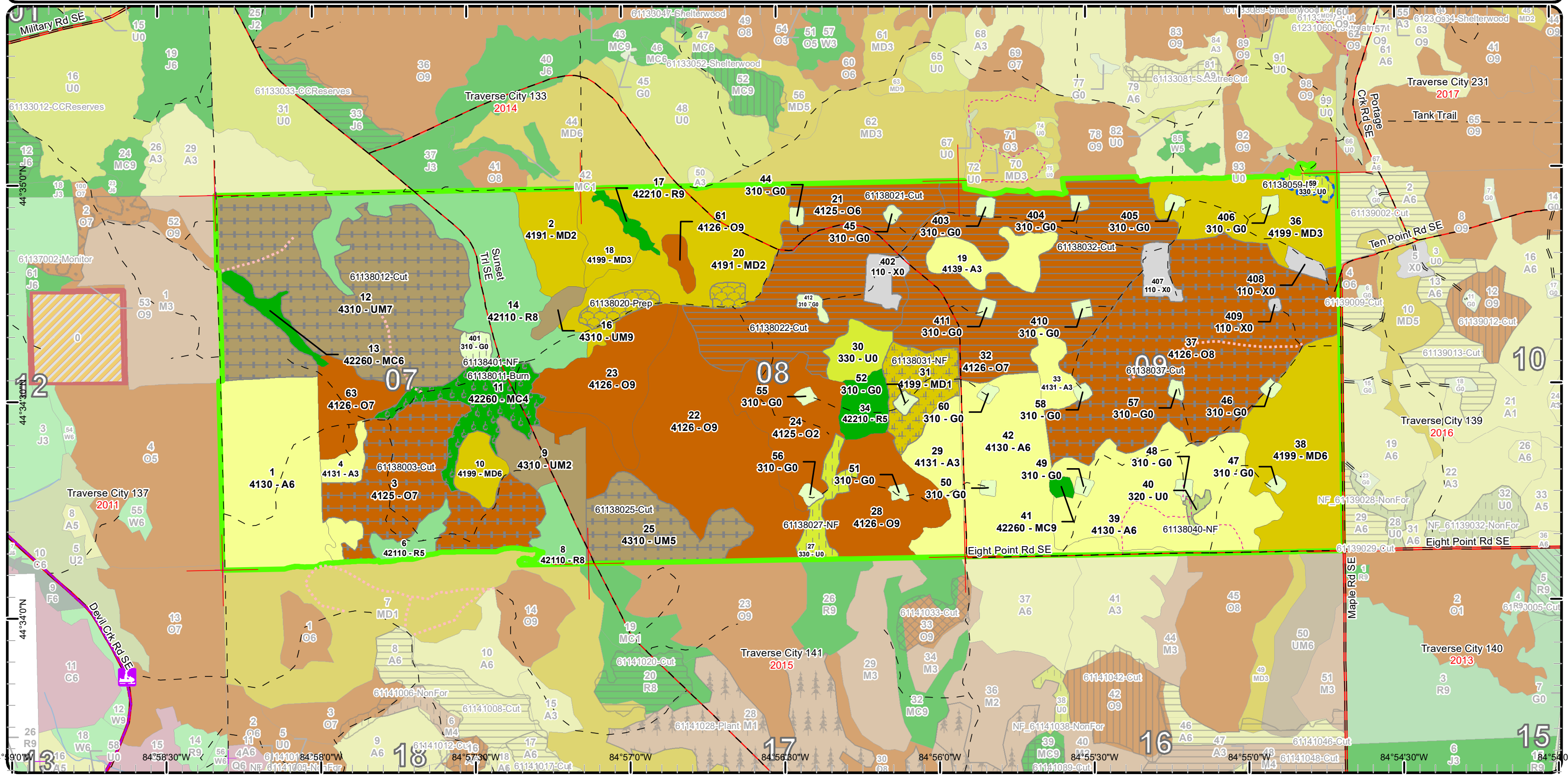
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

Compartment: 138
 T25N R05W Sec. 07-09
 County: Kalkaska
 Unit: Traverse City
 Mgmt Area: Manistee River Valley
 YOE: 2018
 Acres: 1889 GIS Calculated
 Examiner: Paul Roell
 Map Revised: 6/2/2016
 Map Phase: Web - Post

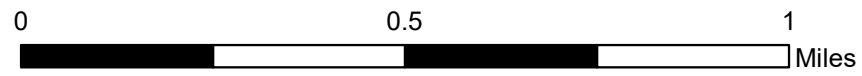
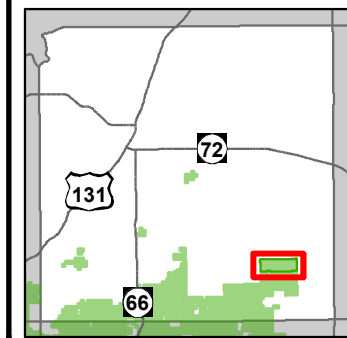


- Miris Corners
- Remonumented Section Corners
- Snowmobile Trails
- Designated ORV Route
- Designated Snowmobile Trails
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Rivers
- Compartment Boundary
- Treatments with Site Conditions
- Site Prep
- Clearcut (w/Reserves)
- Other Treatment - See Comments
- Prescribed Burn
- Opening Maintenance
- Harvest, Overstory Removal
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 430 - Upland Mixed Fores
- 110 - Low Intensity Urban
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low Density Trees

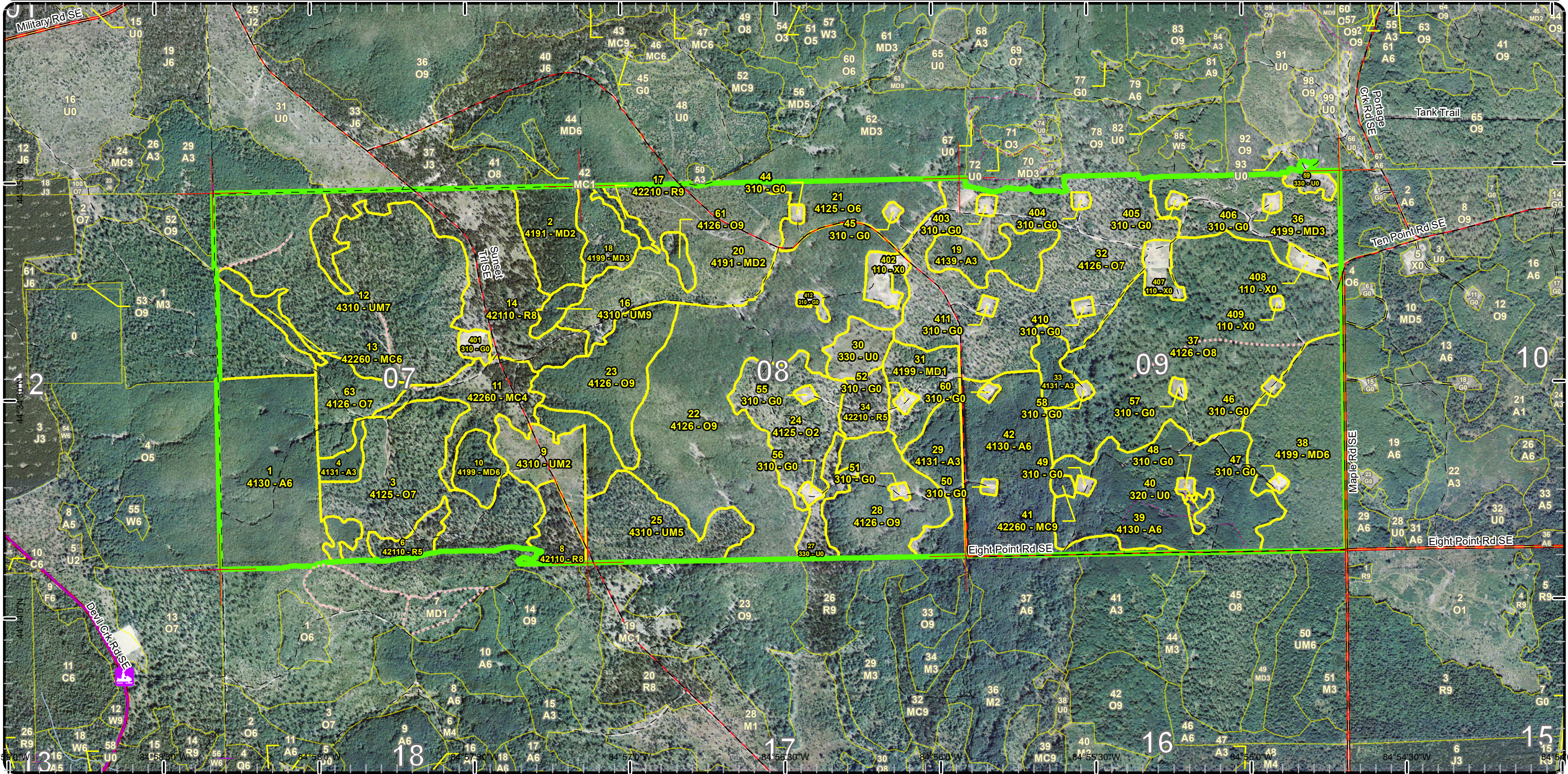


Stand Boundary Map

Compartment: 138
 T25N R05W Sec. 07-09
 County: Kalkaska
 Unit: Traverse City
 Mgmt Area: Manistee River Valley
 YOE: 2018
 Acres: 1889 GIS Calculated
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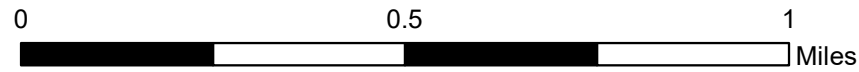
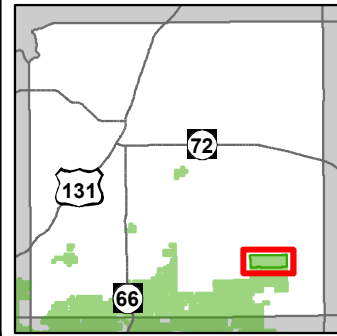


- Miris Corners
 - + Remonumented Section Corners
 - Snowmobile Trails
 - Designated ORV Route
 - Designated Snowmobile Trails
 - County Gravel Roads
 - Gravel Roads
 - Poor Dirt Roads
 - County Poor Dirt Roads
 - Trail (Non-Recreation)
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 - Rivers
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 - Stand Boundaries
- 412 - Oak Types
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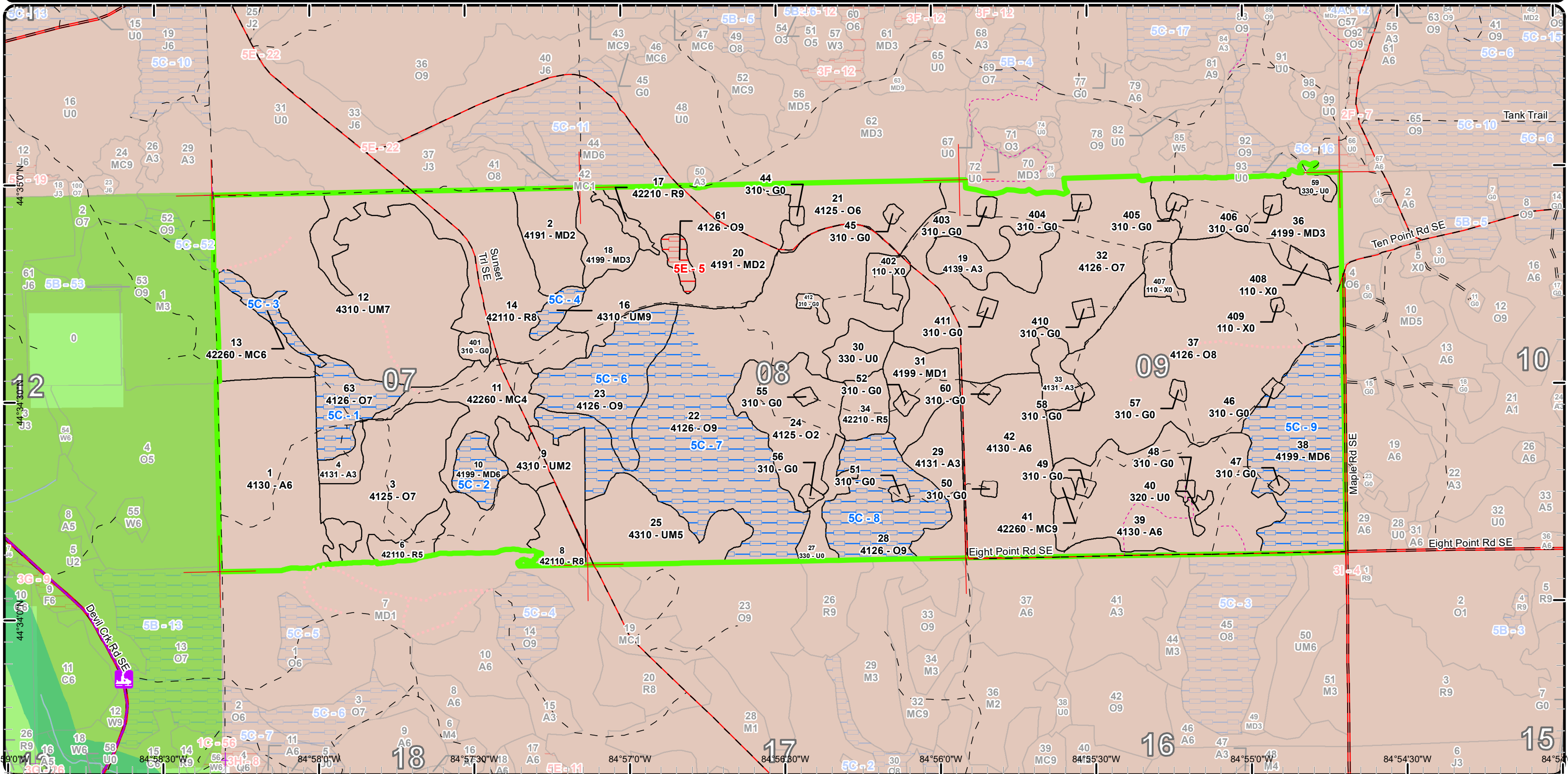


Special Conservation Areas & Site Conditions Map

Compartment: 138
 T25N R05W Sec. 07-09
 County: Kalkaska
 Unit: Traverse City
 Mgmt Area: Manistee River Valley
 YOE: 2018
 Acres: 1889 GIS Calculated
 Examiner: Paul Roell
 Map Revised: 6/2/2016
 Map Phase: Web - Post



- Miris Corners
- + Remonumented Section Corners
- Snowmobile Trails
- Designated ORV Route
- Designated Snowmobile Trails
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Rivers
- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 5E: Long-Term Retention
- Stand Boundaries
- Special Conservation Areas
- Kirtland Warbler Habitat
- Cold Water Streams
- High Priority Trout Stream Buffer
- Research, Development, and Military Lands



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	0	43	116	88	73	0	0	0	0	0	0	0	0	0	0	0	0	320
Herbaceous Openland	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
Low-Density Trees	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29
Mixed Upland Deciduous	0	87	41	73	0	0	0	0	0	86	0	0	0	0	0	0	0	0	287
Natural Mixed Pines	0	0	0	0	0	32	0	0	0	8	0	0	0	0	0	0	0	2	42
Oak	0	0	43	0	0	0	0	0	150	81	514	0	0	0	0	0	0	0	788
Red Pine	0	0	0	0	0	0	13	23	83	0	0	0	0	0	0	0	0	0	119
Upland Mixed Forest	0	24	0	0	0	0	0	0	6	43	173	0	0	0	0	0	0	0	246
Upland Shrub	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Urban	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Total	83	111	127	189	88	105	0	13	23	239	218	687	0	0	0	0	0	2	1885



Report 2 – Treatment Summary

Traverse City Mgt. Unit
Year of Entry:

Acres of Harvest

Compartment 138
Total Compartment Acres: 1,889

Commercial Harvest - 727
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
Oak	256	0	0	0	0	0	255	0	0	511
Upland Mixed Forest	0	0	0	0	0	0	216	0	0	216
Total	256	0	0	0	0	0	471	0	0	727

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	727	11	0	0	32	0	0	0	46	816
Next Step	0	302	157	0	32	157	895	0	0	1542
Total	727	313	157	0	64	157	895	0	46	2358



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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
3 61138003-Cut	82.2	4125 - Black, N. Pin Oak	Sawtimber Poor	108	1-50	Harvest	Overstory Removal	4191 - Mixed Upland Deciduous with Conifer	Even-Aged	Proposal

Habitat Cut: No

Site Condition:

Prescription Clear Cut all trees 4 inches and larger in diameter. Follow minimal area retention guide lines. Do not allow whole tree skidding to protect established regeneration.
Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Regen: the current understory is the acceptable regeneration, a mix of oak, aspen, red maple, red pine and white pine.

Other Comment: Low volume and large acreage sale. Established regeneration needs to be released and protected as much as possible during the harvest.

Proposed Start Date: 10/01/2017

11 61138011-Burn	31.8	42260 - Natural Pine, Mixed Deciduous	Poletimber Poor	40	1-50	Burn	Opening	310 - Herbaceous Openland		Proposal
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Habitat Cut: No

Site Condition:

Prescription The goal of prescribed burning is to restore and/or maintain a grassland/barrens ecosystem. The timing and frequency of the burns will be based on current needs of restoration such as reducing woody encroachment or promoting grasses versus forbs. Remove exotics as needed by herbiciding or other methods. Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.
Specs:

Next Step Burn, Opening

Treatments:

Acceptable Regen:

Other Comment: Work with FRD to hopefully have some of the JP harvested prior to burning. This treatment was forwarded from the last inventory cycle and the delineated stand was slightly smaller in acreage. Could plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. Fertilize plantings and protect with wire cages or tubex.

Proposed Start Date: 10/01/2017

12 61138012-Cut	173.0	4310 - Pine, Oak Mix	Sawtimber Poor	105	1-50	Harvest	Overstory Removal	4191 - Mixed Upland Deciduous with Conifer	Even-Aged	Proposal
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Habitat Cut: No

Site Condition:

Prescription Cut all trees 4 inches and larger in diameter.
Specs: Follow minimal area retention guide lines. Do not allow whole tree skidding to protect established regeneration.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Regen: the current understory is the acceptable regeneration, oak, aspen, red maple, red pine and white pine.

Other Comment: Low volume and large acreage sale. Established regeneration needs to be released and protected as much as possible during the harvest.

Proposed Start Date: 10/01/2017



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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
20 61138020-Prep	11.5	4191 - Mixed Upland Deciduous with Conifer	Sapling Medium	7	Immature	SitePrep	Roller Chopping	42110 - Planted Red Pine	Even-Aged	Proposal

Habitat Cut: No

Site Condition:

Prescription Roller chop to prepare the site to be trenched and planted

Specs:

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

Acceptable a fully stocked stand of red pine
Regen:

Other
Comment:

Proposed Start Date: 10/01/2017

21 61138021-Cut	34.5	4125 - Black, N. Pin Oak	Poletimber Well	91	141-170	Harvest	Clearcut with Retention	4199 - Other Mixed Upland Deciduous	Even-Aged	Proposal
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Habitat Cut: No

Site Condition:

Prescription Final Harvest all trees two inches and larger. Require tops to be chipped and low stumps in case stand needs to be planted. Minimal area retention.

Specs:

Next Step Monitoring, Natural Regen (Intermediate)
Treatments:

Acceptable a fully stocked stand of oak, aspen and red maple.
Regen: If areas of the stand fail to regenerate trench and plant red pine.

Other
Comment:

Proposed Start Date: 10/01/2017

22 61138022-Cut	76.5	4126 - White, Black, N. Pin Oak	Sawtimber Well	100	111-140	Harvest	Clearcut with Retention	4199 - Other Mixed Upland Deciduous	Even-Aged	Proposal
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Habitat Cut: No

Site Condition:

Prescription Final harvest all trees 2 inches or larger, require chipping and low stumps. Leave minimal retention along the edge of the stand.

Specs:

Next Step Monitoring, Natural Regen (Intermediate)
Treatments:

Acceptable A Fully stocked stand of oak, aspen, and a minor component of red maple.
Regen: There is a chance this stand will fail to regenerate in that case trench and plant red pine

Other
Comment:

Proposed Start Date: 10/01/2017

25 61138025-Cut	42.7	4310 - Pine, Oak Mix	Poletimber Medium	91	51-80	Harvest	Overstory Removal	4191 - Mixed Upland Deciduous with Conifer	Even-Aged	Proposal
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Habitat Cut: No

Site Condition:

Prescription Clear Cut all trees 4 inches and larger in diameter. Follow minimal area retention guide lines. Green tree mark a few large white pine and red pine.

Specs: Do not allow whole tree skidding to protect established regeneration.

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

Acceptable the current understory is the expectable regeneration, a mix of, oak, aspen, red maple, red pine and white pine.
Regen:

Other Low volume and large acreage sale. Established regeneration needs to be released and protected as much as possible during the harvest
Comment:

Proposed Start Date: 10/01/2017



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
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27	61138027-NF	11.4	330 - Low-Density Trees	Nonstocked		Unspecified	NonForestMgt	Brush Cutting	320 - Upland Shrub		Proposal
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Habitat Cut: No

Site Condition:

Prescription Brush hog (or hand fell) around select leave trees and/or patches . Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover.
Specs: Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.

Next Step
Treatments:

Acceptable
Regen:

Other Could plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. Fertilize plantings and protect with wire cages or tubex.
Comment:

Proposed Start Date: 10/01/2017

31	61138031-NF	23.3	4199 - Other Mixed Upland Deciduous	Sapling Poor	26	Immature	NonForestMgt	Other - Specify	320 - Upland Shrub		Proposal
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Habitat Cut: No

Site Condition:

Prescription Brush hog (or hand fell) around select leave trees and/or patches . Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover.
Specs: Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.

Next Step
Treatments:

Acceptable
Regen:

Other This stand originally had a burn prescription prior to the installation of the well head. Ideally should still burn but mechanically treatment is most feasible. But if conditions/logistics work, this stand should be burned at least once per entry cycle.
Comment: Could plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. Fertilize plantings and protect with wire cages or tubex.

Proposed Start Date: 10/01/2017

32	61138032-Cut	145.2	4126 - White, Black, N. Pin Oak	Sawtimber Poor	87	1-50	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Proposal
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Habitat Cut: No

Site Condition:

Prescription Cut all trees 2 inches and larger in diameter leave all white pine. Leave a couple minimal retention areas that have regeneration and some overstory oaks.
Specs: Require chipping and low stumps to facilitate planting options.

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

Acceptable a fully stocked stand of planted red pine.
Regen:

Other low volume over story removal
Comment:

Proposed Start Date: 10/01/2017

37	61138037-Cut	173.0	4126 - White, Black, N. Pin Oak	Sawtimber Medium	100	1-50	Harvest	Overstory Removal	4191 - Mixed Upland Deciduous with Conifer	Even-Aged	Proposal
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Habitat Cut: No

Site Condition:

Prescription Clear Cut all trees 4 inches and larger in diameter. Follow minimal area retention guide lines. Do not allow whole tree skidding to protect established regeneration.
Specs:

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

Acceptable the current understory is the acceptable regeneration, a mix of, oak, aspen, red maple, red pine and white pine
Regen:

Other Low volume and large acreage sale. Established regeneration needs to be released and protected as much as possible during the harvest.
Comment:

Proposed Start Date: 10/01/2017



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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
40 61138040-NF	2.4	320 - Upland Shrub	Nonstocked		Unspecified	NonForestMgt	Brush Cutting	320 - Upland Shrub		Proposal

Habitat Cut: No **Site Condition:**

Prescription Brush hog (or hand fell) around select leave trees and/or patches . Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover.
Specs: Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.

Next Step
Treatments:

Acceptable
Regen:

Other Could plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. Fertilize plantings and protect with wire cages or tubex.
Comment:

Proposed Start Date: 10/01/2017

59 61138059-NF	4.9	330 - Low-Density Trees	Nonstocked	0	Unspecified	NonForestMgt	Brush Cutting	320 - Upland Shrub		Proposal
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Habitat Cut: No **Site Condition:** **Age-Class or Site Quality**

Prescription Brush hog (or hand fell) around select leave trees and/or patches . Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover.
Specs: Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.

Next Step
Treatments:

Acceptable
Regen:

Other Could plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. Fertilize plantings and protect with wire cages or tubex.
Comment:

Proposed Start Date: 10/01/2017

401 61138401-NF	4.0	310 - Herbaceous Openland	Nonstocked		Unspecified	NonForestMgt	Herbaceous/Crop/ Grass Planting	310 - Herbaceous Openland		Proposal
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Habitat Cut: No **Site Condition:**

Prescription Remove exotics as needed by herbiciding, or other methods. Seed in annual crop for soil building for several years then convert to appropriate native mix 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).
Specs:

Next Step
Treatments:

Acceptable
Regen:

Other Maintain as needed with mowing, seeding of native grasses and forbs, fertilizing, burning, or removal of woody encroachment.
Comment: Could plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. Fertilize plantings and protect with wire cages or tubex.

Proposed Start Date: 10/01/2017

Total Treatment Acreage Proposed: 816.2

Report 4 – Site Conditions

Traverse City Mgt. Unit

Paul Roell : Examiner

Compartment: 138

Year of Entry: 2018

Availability for Management

Total Acres	Acres Available	Acres Available		Dominant Site Conditions	5C	5E
		With Condition	Not Available			
321	321	0	0	Aspen		
32	32	0	0	Herbaceous Openland		
29	29	1	0	Low-Density Trees	1	
287	202	86	0	Mixed Upland Deciduous	86	
42	34	8	0	Natural Mixed Pines	8	
790	555	230	5	Oak	230	5
119	119	0	0	Red Pine		
246	240	6	0	Upland Mixed Forest	6	
2	2	0	0	Upland Shrub		
20	20	0	0	Urban		
1,889	1,553	331	5	Total Forested Acres	331	5
	82%	18%	0%	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	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	23	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
2	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	12	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Traverse City Mgt. Unit

Paul Roell : Examiner

Compartment: 138

Year of Entry: 2018

3	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Unavailable	5E: Long-Term Retention	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	45	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	115	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
8	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	47	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Traverse City Mgt. Unit

Paul Roell : Examiner

Compartment: 138

Year of Entry: 2018

9	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	73	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Mgt. Unit

Compartment: #Type!

Year of Entry:



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

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

SCA Name	SCA Category	Detail Type	Recommendation	Acres
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Comments				
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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	Research and Military Areas	These areas provide facilities and lands specifically dedicated for research, or other purposes. They include the 5,847 acre Forest Fire Experiment Station, the 12,000 acre Houghton Lake Wildlife Research Area, the Beaver Islands Archipelago Wildlife Research Area (that includes most of Garden Island, all of High and Hog Islands, all state owned land on Beaver, South Fox and North Fox Islands), the Cusino Wildlife Research Area, the 3,000 acre Hunt Creek Fisheries Research Station, the 125 acre Wyman Nursery, and over 144,000 acres of Military Lands.
HCVA	Designated Critical Habitat	Critical habitat areas are established via a consultative and cooperative process between the DNR and the U.S. Fish and Wildlife service for the recovery of threatened and endangered species, as governed by Part 365, Endangered Species Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, and the Federal Endangered Species Act of 1973. This is an active program, with proposed species plans in various stages of review. As of now only two exist, Kirtland Warbler Habitat and Piping Plover Habitat.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4130 - Aspen	Poletimber Well	87.5	36	51-80	This stand was clearcut in 1980.
2	4191 - Mixed Upland Deciduous with Conifer	Sapling Medium	25.5	15	51-80	Stand was cut in 2001 the "Different Opinion" sale which called to cut all trees 4 inches and up leave all red pine. Sale also included stand 18.
3	4125 - Black, N. Pin Oak	Sawtimber Poor	82.2	108	1-50	Stand was last treated with the Sunset Mix Sale #023-08 which was completed in 2012. Thinned in 2001, sale #023-99-01, "Spike-Horn" sale, 100 acres.
4	4131 - Aspen, Oak	Sapling Well	11.5	16	Immature	This stand was clearcut in 2000.
6	42110 - Planted Red Pine	Poletimber Medium	9.6	77	1-50	Last timber sale was Sunset Mix #023-08.
8	42110 - Planted Red Pine	Sawtimber Medium	13.3	77	51-80	Last timber sale was Sunset Mix #023-08.
9	4310 - Pine, Oak Mix	Sapling Medium	24.4	5	Immature	Last timber sale was Sunset Mix #023-08.
10	4199 - Other Mixed Upland Deciduous	Poletimber Well	12.3	95	51-80	Stand was treated there are areas of thick regeneration mixed with areas of oak overstory.
11	42260 - Natural Pine, Mixed Deciduous	Poletimber Poor	31.8	40	1-50	
12	4310 - Pine, Oak Mix	Sawtimber Poor	173.0	105	1-50	Stand has been harvested twice in the last 20 years both sales named Sunset Trail.
13	42260 - Natural Pine, Mixed Deciduous	Poletimber Well	8.5	92	111-140	
14	42110 - Planted Red Pine	Sawtimber Medium	79.4	82	51-80	Stand was last treated with the Sunset Trail Sale #024-08 timber sale.
16	4310 - Pine, Oak Mix	Sawtimber Well	5.9	82	81-110	
17	42210 - Natural Red Pine	Sawtimber Well	4.3	84	1-50	
18	4199 - Other Mixed Upland Deciduous	Sapling Well	15.9	15	Immature	Stand was cut in 2001 the "Different Opinion" sale which called to cut all trees 4 inches and up leave all red pine. Sale also included stand 2. There are a few widely scattered Red Pine sawlog size trees remaining as residual from the 2001 cut.
19	4139 - Aspen, Mixed Deciduous	Sapling Well	20.9	15	Immature	



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
20	4191 - Mixed Upland Deciduous with Conifer	Sapling Medium	87.4	7	Immature	
21	4125 - Black, N. Pin Oak	Poletimber Well	34.5	91	141-170	Stand was prescribed for cutting ten years ago and the marking was started but not completed. Timber quality is low to fair.
22	4126 - White, Black, N. Pin Oak	Sawtimber Well	191.2	100	111-140	Terrain is rolling.
23	4126 - White, Black, N. Pin Oak	Sawtimber Well	45.2	100	81-110	Very dense understory of white pine
24	4125 - Black, N. Pin Oak	Sapling Medium	43.4	15	Immature	Stand was clearcut in 2001. There are a few widely scattered Red Pine sawlog size trees remaining as residual from the 2001 cut. Some scattered residual oak was left during the harvest. Terrain is rolling.
25	4310 - Pine, Oak Mix	Poletimber Medium	42.7	91	51-80	Stand was last treated with the Sunset Mix Sale #023-08 which was completed in early 2012.
28	4126 - White, Black, N. Pin Oak	Sawtimber Well	46.9	94	111-140	
29	4131 - Aspen, Oak	Sapling Well	25.8	26	Immature	Stand was clearcut in 1990.
31	4199 - Other Mixed Upland Deciduous	Sapling Poor	23.3	26	Immature	Traces of white pine and jack pine.
32	4126 - White, Black, N. Pin Oak	Sawtimber Poor	145.2	87	1-50	
33	4131 - Aspen, Oak	Sapling Well	10.8	15	Immature	Sale #021-99-01, "Eight Point Sale." Cutting occurred in September of 2000.
34	42210 - Natural Red Pine	Poletimber Medium	12.5	61	1-50	
36	4199 - Other Mixed Upland Deciduous	Sapling Well	49.7	26	Immature	Stand clearcut in 1990. Regeneration in the form of stump sprouted red maple and oak make up the bulk of the stand. The terrain is slightly rolling.
37	4126 - White, Black, N. Pin Oak	Sawtimber Medium	173.0	100	1-50	Stand had a shelter wood harvest done in 2011 10 Point Maple Sale #61-019-08. Much of the oak is experiencing top dieback and some of the oak has died. There is fully stocked stand of regenerated red maple, oak, and aspen from the previous harvest.
38	4199 - Other Mixed Upland Deciduous	Poletimber Well	73.3	90	111-140	Two permanent Gypsy Moth plots (John Witter) are located within this stand with numbered trees. There is a trace of large diameter red pine scattered throughout the stand.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
39	4130 - Aspen	Poletimber Well	90.5	28	51-80	Stand was clearcut in 1988. Stand is healthy, dense and needs no treatment at this time. It is just converting from sapling to pole sized one stick trees. There are a few log sized red oak trees within the stand and a trace of regenerating paper birch. Terrain is flat and upland.
41	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	2.1	105	111-140	Pocket of natural White Pine with a mix of Red Pine and hardwoods. Unique pocket of timber - should just leave it for diversity.
42	4130 - Aspen	Poletimber Well	73.5	44	81-110	This stand was clearcut in 1980. Some pockets of older timber in the stand. Some rolling terrain. Big diameter red and white pines scattered throughout the stand.
61	4126 - White, Black, N. Pin Oak	Sawtimber Well	5.0	87	81-110	
63	4126 - White, Black, N. Pin Oak	Sawtimber Poor	23.2	103	81-110	Stand thinned in winter/spring of 2002. Part of the Sunset Trail sale #157-98-01.



Stand	Cover Type	Acres	Managed Site	General Comments:
27	330 - Low-Density Trees	11.4	Yes	Very open stand jack pine starting to fill in the southern portion of it. Some cherry, oak, aspen, red maple and white pine present with in the stand.
30	330 - Low-Density Trees	12.9		Some red pine and oak overstory trees left from past harvest. Some oak and jack pine seeding in.
40	320 - Upland Shrub	2.4	No	Mostly Pin Cherry & Shrubs.
44	310 - Herbaceous Openland	1.2	No	Active well site
45	310 - Herbaceous Openland	1.1	No	Active well site
46	310 - Herbaceous Openland	1.2	No	Active well site
47	310 - Herbaceous Openland	1.1	No	There wasn't any equipment here but this is an opening for a well site.
48	310 - Herbaceous Openland	1.4	No	Active well site
49	310 - Herbaceous Openland	1.3	No	Active well site
50	310 - Herbaceous Openland	1.1	No	Active well site
51	310 - Herbaceous Openland	1.2	No	Active well site
52	310 - Herbaceous Openland	1.6	No	Active well site
55	310 - Herbaceous Openland	1.2	No	Active well site
56	310 - Herbaceous Openland	1.5	No	Active well site
57	310 - Herbaceous Openland	1.3	No	Active well site
58	310 - Herbaceous Openland	1.2	No	Active well site
59	330 - Low-Density Trees	4.9	No	
60	310 - Herbaceous Openland	1.2	No	Active well site



Stand	Cover Type	Acres	Managed Site	General Comments:
401	310 - Herbaceous Openland	4.0	No	
402	110 - Low Intensity Urban	8.0	No	Open area that is being used as a facility relative to gas/oil operation in the area. Several processing devices and buildings on the site. Pipelines lead to the site from several directions.
403	310 - Herbaceous Openland	1.7	No	Active well site
404	310 - Herbaceous Openland	1.3	No	Active well site
405	310 - Herbaceous Openland	1.2	No	Active oil/gas well. Knapweed present.
406	310 - Herbaceous Openland	1.5	No	Active oil/gas well.
407	110 - Low Intensity Urban	7.6	No	Open area that is being used as a facility relative to gas/oil operation in the area. Several processing devices and buildings on the site. Pipelines lead to the site from several directions. Knapweed and sweetfern occupy portions of the site.
408	110 - Low Intensity Urban	3.3	No	Open area that contains a working well. Knapweed and sweetfern occupy portions of the site.
409	110 - Low Intensity Urban	0.7	No	Oil/gas facility.
410	310 - Herbaceous Openland	1.5	No	Active well site
411	310 - Herbaceous Openland	1.4	No	Active well site
412	310 - Herbaceous Openland	2.2	No	Oil or gas facility.