



Compartment Review Presentation

Grayling Forest Management Unit

Compartment 72244

Entry Year 2017

Acreage: 1,873

County Crawford

Management Area: Camp Grayling

Revision Date: 2015-07-29

Stand Examiner: Matthew Foster

Legal Description:

T28N R03W Sections 10,11, and 12.

Identified Planning Goals:

To provide an area that allows for National Guard training while maintaining forest health, productivity, sustainability, species diversification, and structural diversity throughout the compartment.

Soil and topography:

Soils generally consist of Blue Lake and Rubicon sands. Topography is gently rolling with a few areas of moderate slope.

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

There is 40 acres of private property in the SWSW of section 10. The remainder of section 10 is under the 10 year management agreement with the Michigan National Guard. Lands in section 11 & 12 are a mix of military board lands or state land leased to the Michigan National Guard under L-1479 allowing long term military use of the property.

Unique Natural Features:

Stand 412 contains old apple orchard and prairie moonwort along with multiple firing points.

Archeological, Historical, and Cultural Features:

Five archaeological sites are located within this compartment, in stands 7, 25, 34, and 118. These sites have been previously determined to not be significant and do not need to be avoided. We have no concerns.

Special Management Designations or Considerations:

Military training.

Watershed and Fisheries Considerations:

There is a small Kettle hole in section 12 (stand 230). Bull Frog Lake and part of Barnes Lake found on Range 40.

Wildlife Habitat Considerations:

Some old well sites or firing points could be used as maintained openings.

Mineral Resource and Development Concerns and/or Restrictions

Numerous active and abandoned gas wells and pipelines throughout the compartment. Surface sediments consist of ice-contact outwash and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 600 and 1,000 feet. Beneath the glacial drift is the Coldwater Shale. The Coldwater does not have an economic use. The nearest gravel pit may be in Section 4 to the northwest and potential is good on the uplands. The western two-thirds of the compartment is leased and developed for the Antrim Shale.

Vehicle Access:

Vehicle access is good off Sherman and Calker roads. Calker road is not maintained after White road. There are many trail roads throughout and some are well maintained even throughout the winter by oil and gas operations. This area also sees heavy military vehicle use creating numerous roads. No roads were identified for closure.

Survey Needs:

None.

Recreational Facilities and Opportunities:

Hunting opportunities are high due to good access and multiple age and multiple cover types for wildlife.

Fire Protection:

Wildfire is a concern here due to heavy military operations on the air to ground impact range (range 40). Large wildfire potential is minimal due to hardwood cover types. Access is good into this area due to military road systems. There is a

possible water point in section 12 (stand 230).

Additional Compartment Information:

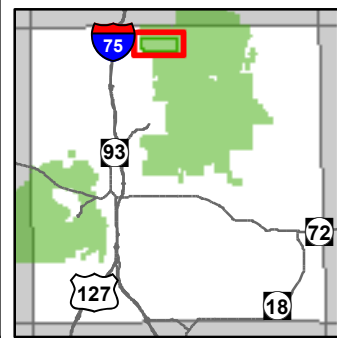
The following reports from the Inventory are attached:

- 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:

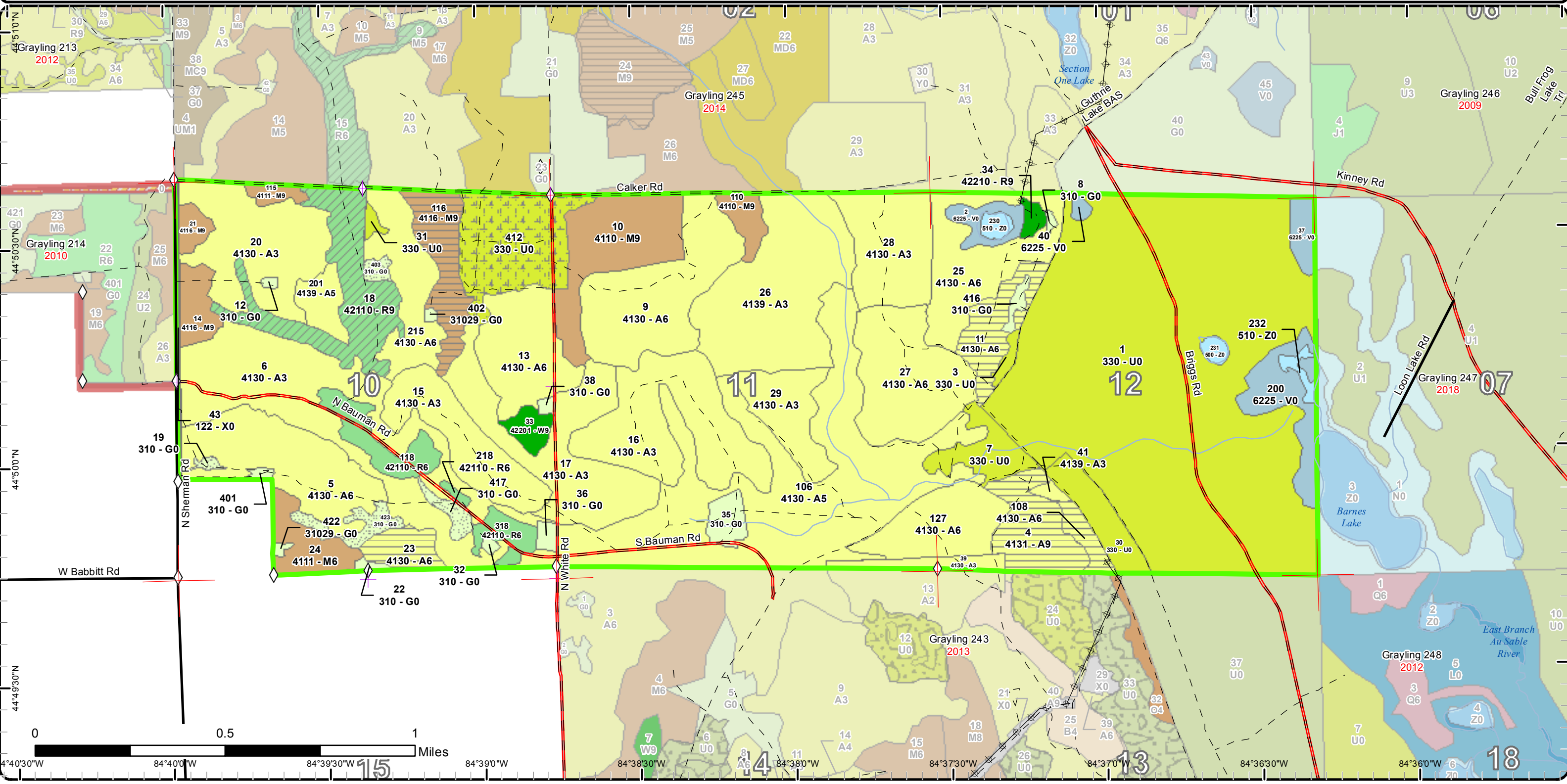
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments



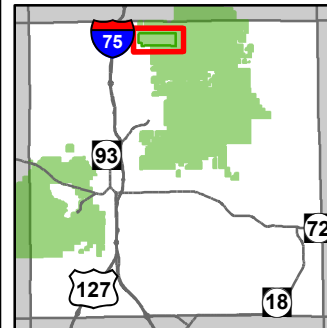
Compartment: 244
 T28N R03W 10-12
 County: Crawford
 Unit: Grayling
 Mgmt Area: Camp Grayling
 YOE: 2017
 Acres: 1873 GIS Calculated
 Examiner: Matthew Foster
 Map Revised: 10/12/2015
 Map Phase: Review

- ✦ Remonumented Section Corners
- ◇ Field Grade GPS Corners
- Miris Corners
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- Rivers
- Lakes
- Powerline
- ▭ Clearcut (w/Reserves)
- ▭ Other Treatment - See Comments
- ▭ Mowing
- ▭ Thinning (Crown, Low, Systematic)
- Forest Coverture
 - ▭ 411 - Northern Hardwood
 - ▭ 413 - Aspen
 - ▭ 421 - Planted Pines
 - ▭ 422 - Natural Pines
- Non-Forest Coverture
 - ▭ 122 - Roads/Parking Lot
- ▭ 310 - Herbaceous Openland
- ▭ 330 - Low Density Trees
- ▭ 500 - Water
- ▭ 622 - Lowland Shrub

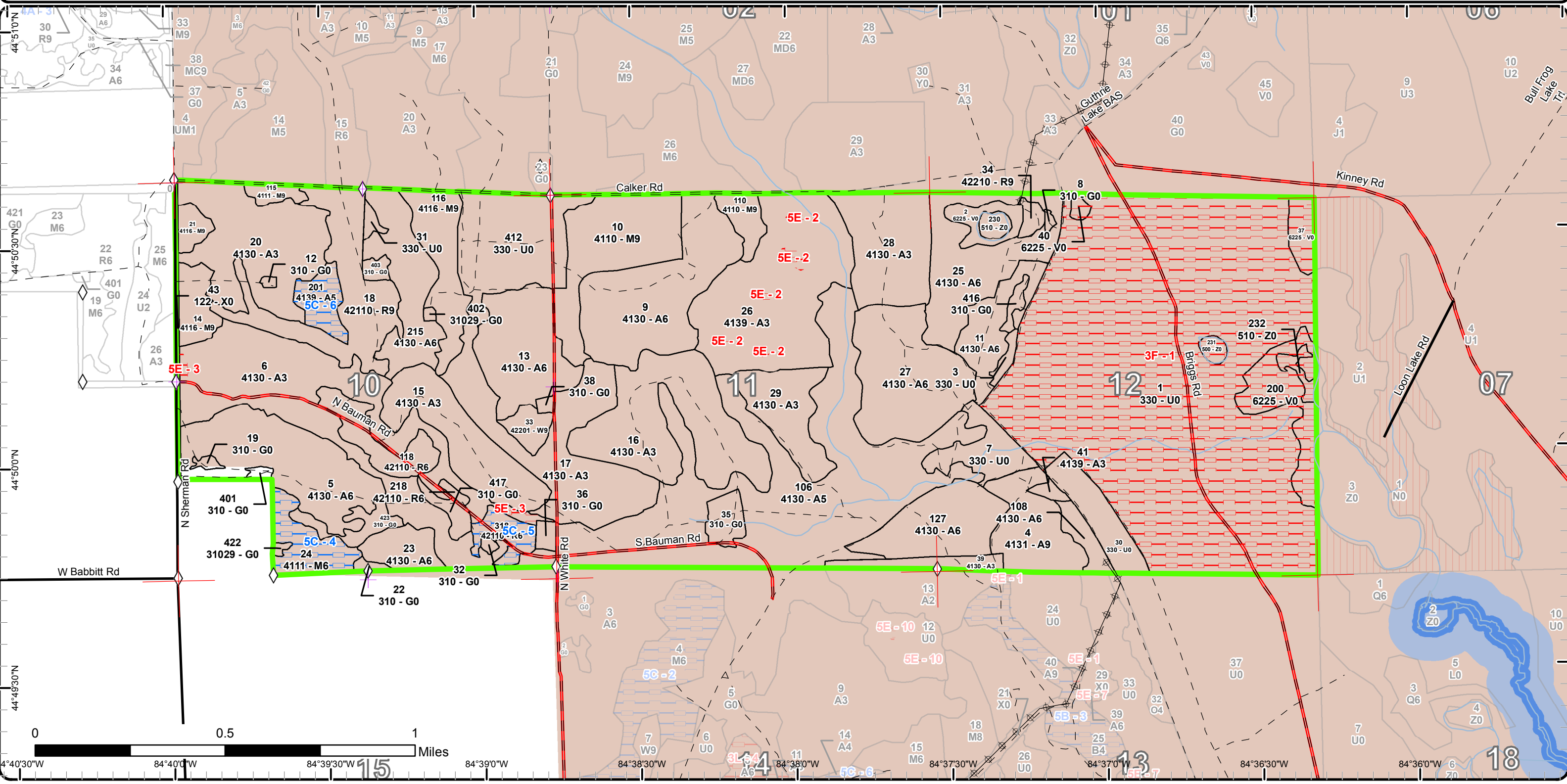


Special Conservation Areas & Site Conditions Map

Compartment: 244
 T28N R03W 10-12
 County: Crawford
 Unit: Grayling
 Mgmt Area: Camp Grayling
 YOE: 2017
 Acres: 1873 GIS Calculated
 Examiner: Matthew Foster
 Map Revised: 8/19/2015
 Map Phase: Review



- ✦ Remonumented Section Corners
- ◇ Field Grade GPS Corners
- Miris Corners
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- Rivers
- ⊕ Powerline
- Stand Boundaries
- Site Condition
- Available w/ Constraints
- Unavailable
- Available Factors W/ Constraints
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- Unavailable Factors
- 3F: Military easement / lease
- 5E: Long-Term Retention
- Special Conservation Areas
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Cold Water Streams
- Research, Development, and Military Lands
- Other SCA (No Category Assigned)



Report 1 – Total Acres by Cover Type and Age Class

Grayling Mgt. Unit
Matthew Foster : Examiner

Compartment 244 Year of Entry 2017



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	325	149	215	313	11	41	30	0	0	0	0	0	0	0	0	0	0	1084
Bog	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
Herbaceous Openland	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38
Low-Density Trees	489	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	489
Northern Hardwood	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	106	120
Red Pine	0	0	0	0	0	0	76	0	0	3	0	0	0	0	0	0	0	0	79
Urban	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Water	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
White Pine	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	7
Total	583	325	149	215	313	11	117	30	0	24	0	0	0	0	0	0	0	106	1873



Report 2 – Treatment Summary

Grayling Mgt. Unit

Year of Entry: 2017

Acres of Harvest

Compartment 244

Total Compartment Acres: 1,873

Commercial Harvest - 145
 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	70	0	0	0	0	0	0	0	0	70
Northern Hardwood	27	0	0	0	0	0	0	0	0	27
Red Pine	0	0	0	0	0	48	0	0	0	48
Total	97	0	0	0	0	48	0	0	0	145

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	145	0	0	0	0	0	0	66	0	211
Next Step	0	0	0	0	0	0	97	0	0	97
Total	145	0	0	0	0	0	97	66	0	308



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
4	72244004-Cut	29.5	4131 - Aspen, Oak	Sawtimber Well	65	141-170	Harvest	Clearcut with Retention	4131 - Aspen, Oak	Even-Aged	Proposal

Habitat Cut: No **Site Condition:**

Prescription Final harvest stand, leave retention at north end protecting OP4. Protect all wildlife shrubs. Harvest with adjacent stand 108.

Specs:

Next Step

Treatments:

Acceptable Aspen, aspen/oak mix.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

11	72244011-Cut	20.8	4130 - Aspen	Poletimber Well	55	Unspecified	Harvest	Clearcut	413 - Aspen	Even-Aged	Proposal
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Habitat Cut: No **Site Condition:**

Prescription Final harvest stand, follow standard retention guidelines. Protect adjacent firing points. Add drumming log spec.

Specs:

Next Step

Treatments:

Acceptable Aspen

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

18	72244018-Cut	48.1	42110 - Planted Red Pine	Sawtimber Well	58	201+	Harvest	Crown Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
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Habitat Cut: No **Site Condition:**

Prescription Second entry thinning, mark stand down to 120BA, focus on removing suppressed and poor quality stems.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

19	72244019-NF	1.3	310 - Herbaceous Openland	Nonstocked	0	Unspecified	NonForestMgt	Mowing	310 - Herbaceous Openland		Proposal
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Habitat Cut: No **Site Condition:**

Prescription Periodic opening maintenance, as needed, that may include disking, fertilizing, food plot seeding, no-till prairie grass drill seeding, mowing,

Specs: brushing, burning and herbicide application.

Next Step

Treatments:

Acceptable

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /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
23	72244023-Cut	12.5	4130 - Aspen	Poletimber Well	53	Unspec ified	Harvest	Clearcut	413 - Aspen	Even-Aged	Proposal

Habitat Cut: No **Site Condition:**

Prescription Final harvest stand, leave no retention due to small stand size. Protect all wildlife shrubs. Include drumming log spec for grouse.
Specs:

Next Step
Treatments:

Acceptable Aspen
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

108	72244108-Cut	7.3	4130 - Aspen	Poletimber Well	51	Unspec ified	Harvest	Clearcut	4130 - Aspen	Even-Aged	Proposal
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Habitat Cut: No **Site Condition:**

Prescription Final harvest with no retention due to small stand size.
Specs:

Next Step
Treatments:

Acceptable Aspen or an aspen/oak mix.
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

116	72244116-Cut	26.5	4116 - Mixed N. Hardwood - Aspen	Sawtimber Well	82	51-80	Harvest	Clearcut with Retention	4116 - Mixed N. Hardwood - Aspen	Even-Aged	Proposal
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Habitat Cut: No **Site Condition:**

Prescription Final harvest stand, focus retention around longer lived species (maple). Protect pipeline and adjacent gas well.
Specs:

Next Step
Treatments:

Acceptable aspen/hardwood mix.
Regen:

Other Stand will regenerate to a hardwood/aspen mix. Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

403	72244403-NF	2.5	310 - Herbaceous Openland	Nonstocked		Unspec ified	NonForestMgt	Mowing	3102 - Grass		Proposal
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Habitat Cut: No **Site Condition:**

Prescription Periodic opening maintenance, as needed, that may include disking, fertilizing, food plot seeding, no-till prairie grass drill seeding, mowing, brushing, burning and herbicide application.
Specs:

Next Step
Treatments:

Acceptable
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /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
412	72244412-NF	49.3	330 - Low-Density Trees	Nonstocked		Unspec ified	NonForestMgt	Pruning	222 - Orchards/Vineya rds/Nursery		Proposal

Habitat Cut: No

Site Condition:

Prescription Periodic opening maintenance, as needed, that may include disking, fertilizing, food plot seeding, no-till prairie grass drill seeding, mowing,
Specs: brushing, burning and herbicide application. Wildlife would like to prune the existing apple trees and possibly plant new ones.

Next Step
Treatments:

Acceptable
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

417	72244417-NF	4.8	310 - Herbaceous Openland	Nonstocked		Unspec ified	NonForestMgt	Mowing	3102 - Grass		Proposal
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Habitat Cut: No

Site Condition:

Prescription Periodic opening maintenance, as needed, that may include disking, fertilizing, food plot seeding, no-till prairie grass drill seeding, mowing,
Specs: brushing, burning and herbicide application.

Next Step
Treatments:

Acceptable
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

423	72244423-NF	8.3	310 - Herbaceous Openland	Nonstocked		Unspec ified	NonForestMgt	Mowing	310 - Herbaceous Openland		Proposal
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Habitat Cut: No

Site Condition:

Prescription Periodic opening maintenance, as needed, that may include disking, fertilizing, food plot seeding, no-till prairie grass drill seeding, mowing,
Specs: brushing, burning and herbicide application.

Next Step
Treatments:

Acceptable
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

**Total Treatment
 Acreage Proposed: 210.9**

Report 5 – Site Conditions

Grayling Mgt. Unit
Matthew Foster : Examiner

Compartment: 244
Year of Entry: 2017

Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	5C	3F	5E
		With Condition	Not Available				
1083	1065	11	8	Aspen	11		8
43	8	0	35	Bog		35	
38	38	0	0	Herbaceous Openland			
489	89	0	400	Low-Density Trees		400	
120	102	18	0	Northern Hardwood	18		
79	70	9	0	Red Pine	9		
4	4	0	0	Urban			
9	3	0	6	Water		6	
7	7	0	0	White Pine			
1,873	1,386	38	449	Total Forested Acres	38	441	8
	74%	2%	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	Dominant Site Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	3F: Military easement / lease	441	Unspecified	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Fenced area inside Range 40.								
2	Unavailable	5E: Long-Term Retention	5	Unspecified	Unspecified	Unspecified	Unspecified	Unspecified
Comments:								
3	Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified	Unspecified
Comments:								

Report 5 – Site Conditions

Grayling Mgt. Unit

Matthew Foster : Examiner

Compartment: 244

Year of Entry: 2017

4	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	18	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	11	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Mgt. Unit

Compartment: #Type!

Year of Entry:



Report 6 – PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

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

SCA Name	SCA Category	Detail Type	Recommendation	Acres
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Comments



Report 7 – EXISTING SPECIAL CONSERVATION AREA DETAILS

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

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



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
4	4131 - Aspen, Oak	Sawtimber Well	29.5	65	141-170	Red oak and aspen mix, nice quality oak. Some wind throw occurring at south end of the stand due to adjacent harvest. Aspen is fully mature and stand is ready to be harvested. OP 4 is at the north end of the stand.
5	4130 - Aspen	Poletimber Well	57.6	27	Unspecified	Stand was cut in 1988 under contract #72-009-88-01. Mixed aspen stand with a few maple and beech saplings throughout. This stand is just reaching pole size, south edge along private and two track has more smaller diameter hardwoods, the rest of the stand is aspen dominated.
6	4130 - Aspen	Sapling Well	104.4	3	1-50	Stand was harvested in 2012 under Baumann Aspen (72-614-11-01). Good aspen regeneration, a few bigger white pine left from harvest. A large slash pile was left at the west end of the stand from the harvest.
9	4130 - Aspen	Poletimber Well	63.9	35	Unspecified	Good aspen site, a lot of hard maple regeneration is in the understory. Might be able to harvest next YOE.
10	4110 - Sugar Maple Association	Sawtimber Well	45.4	82	81-110	Stand thinned in 1998 under F.P. 315 Thin Block (72-025-97-01). A lot of beech and ironwood throughout understory with pockets of ash and sugar maple regeneration. Nice quality maple stand. Average BA = 102, hold another 10 years and then look to thin.
11	4130 - Aspen	Poletimber Well	20.8	55	Unspecified	New stand added from stand 25. Most of this stand looks like it was not harvested at the same time as stand 25. Mixed aspen stand with pockets of over mature aspen, some aspen filling in the open areas. Stand should be final harvested.
13	4130 - Aspen	Poletimber Well	41.1	27	Immature	Stand cut in 1988 under contract 72-012-88-01. Thick aspen stand, just reached pole size class.
14	4116 - Mixed N. Hardwood - Aspen	Sawtimber Well	11.7	80	81-110	Fair to poor quality hardwoods mixed with pockets of bigtooth aspen. Very little hard maple regen or recruitment. Most maple is multi stemmed stump sprout origin and has low branching. Most regen is ironwood. Beech Bark Disease is just starting on a few beech trees, beech is a small component of this stand.
15	4130 - Aspen	Sapling Well	39.4	17	Immature	Stand was cut in 1998 under contract #72-030-97-01. Dense aspen dominated stand with witch hazel and hawthorn found throughout the understory.
16	4130 - Aspen	Sapling Well	68.3	17	Unspecified	Cut in 1998 under contract #72-030-97-01. Thick aspen stand with a couple of open areas at the north end, will be close to pole sized next YOE.
17	4130 - Aspen	Sapling Well	63.2	6	Immature	Stand was harvested in 2009 under contract #72-615-07-01. White pine and red pine were left from previous harvest, pockets of the white pine have blown over or have the tops snapped off. Most of the red pine left is in the southeast corner of the stand. The aspen is regenerating very well, witch hazel and hawthorn shrubs were protected well during harvest and are present throughout the stand.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
18	42110 - Planted Red Pine	Sawtimber Well	48.1	58	201+	Stand was third row thinned in 1998 under contract #72-043-97-01. Nice red pine stand, this stand is growing much better than red pine to the south. Beech and red maple thick in some spots in the understory. Average BA = 210.
20	4130 - Aspen	Sapling Well	58.7	4	Immature	Stand was harvested in 2011 under contract #72-616-07-01. Good regeneration, a couple of scattered maple left from harvest. Some maple regeneration is mixed in with the aspen.
21	4116 - Mixed N. Hardwood - Aspen	Sawtimber Well	5.5	80	81-110	Stand consists of mostly sugar maple and bigtooth aspen. Most of the trees are log sized, aspen is at maturity. There are a few sugar maple saplings in the understory, everything around the stand has recently been clearcut.
23	4130 - Aspen	Poletimber Well	12.5	53	Unspecified	Mature aspen stand, good amount of hawthorn in the understory. Some blowdown occurring especially in the southeast corner of the stand.
24	4111 - S.Maple, Hard Mast Association	Poletimber Well	17.9	70	111-140	Appears to be stump sprout origin(multi-stemmed) hard maple stand. Regen is mostly beech and ironwood. Hardwood quality is not great, beech bark disease is found on the beech, heavy on some trees. Quality is not good enough to warrant thinning, hold for diversity. Decision was made to allow beech to die out of this stand, not enough to warrant a salvage operation.
25	4130 - Aspen	Poletimber Well	44.8	37	1-50	Stand harvested in 1978 under contract #1-77A. Most areas just reaching pole timber size. Better site on hill tops with more BTA. Some scattered stump sprout oak.
26	4139 - Aspen, Mixed Deciduous	Sapling Well	87.4	8	Immature	Stand was cut in 2007 under contract #72-614-07-01. Old comment states "FTP for burn submitted #C72-578- FTP cancelled in 2/4/08 as it did not make burn priority list in 2008 so would not be completed- will rely on natural regeneration." Stand is now an aspen and red maple mix. Five small retention islands were left scattered throughout the stand. Stand is more aspen dominated at the north end and more red maple is found at the south end. Witch hazel and hawthorn is found throughout.
27	4130 - Aspen	Poletimber Well	55.3	28	Unspecified	Stand harvested in 1987 under contract 72-031-87-01. Mostly bigtooth aspen on ridge tops and quaking on lower elevations. Some red maple and white birch mixed in throughout the stand.
28	4130 - Aspen	Sapling Well	41.1	17	Unspecified	Stand was cut in 1998 under contract #72-030-97-01. Mostly a mix of aspen, red maple and some oak. Steep ridges run through the stand.
29	4130 - Aspen	Sapling Well	26.4	28	Immature	Stand harvested in 1987 under contract 72-031-87-01. Pockets of aspen doing well and approaching pole size mixed with areas of red maple stump sprouts. South end of stand is more open with oak/cherry/red maple mix.
33	42201 - Natural White Pine, Mixed Deciduous	Sawtimber Well	6.8	80	111-140	White pine stand with old aspen mixed throughout. Mostly red maple and beech understory. Some blowdown has occurred at the southern end of the stand. Leave stand for species diversity.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
34	42210 - Natural Red Pine	Sawtimber Well	3.1	85	51-80	Small stand of red pine on east end of small pond. Some areas may have been planted, some red pine and red maple in the understory.
39	4130 - Aspen	Sapling Well	9.0	9	Immature	Stand cut in 2006 under Range 40 Aspen (72-015-03-01). This stand is on a north facing slope, very good aspen regeneration. Stand was cut and should be managed with stand 13 to the south.
41	4139 - Aspen, Mixed Deciduous	Sapling Well	2.0	5	Immature	Trees were shear cut in 2010 to view the range from OP 4. Aspen mixed with red maple and oak stump sprouts.
106	4130 - Aspen	Poletimber Medium	170.2	38	Unspecified	Poor quality quaking aspen stand that spreads across most of the compartment. Contains a lot of black canker. Scattered large burnt white pine stumps. A few scattered white pine seedlings and poles. Open areas are filling in with aspen saplings.
108	4130 - Aspen	Poletimber Well	7.3	51	Unspecified	Aspen stand with a few older oaks present. Some areas have great advanced oak regeneration. Poor quality aspen, harvest with adjacent stand.
110	4110 - Sugar Maple Association	Sawtimber Well	8.5	82	51-80	Stand thinned in 1998 under contract #72-025-97-01. Beech and ironwood regeneration in the understory. Avg BA = 77. OPIC - FMD: Mostly beech and ironwood regen. Thinned last entry.
115	4111 - S.Maple, Hard Mast Association	Sawtimber Well	4.3	81	1-50	Small stand of hardwoods, mostly hard maple mixed with a couple pockets of aspen. Beech bark disease present on some of the beech trees. Mostly beech & ironwood regeneration.
116	4116 - Mixed N. Hardwood - Aspen	Sawtimber Well	26.5	82	51-80	Mixed stand with maple, beech, and pockets of aspen. Beech Bark disease found in the stand, hardwood quality is not great, low branching. Aspen is at maturity. It might be best to restart this stand. Understory consists of mostly beech and ironwood.
118	42110 - Planted Red Pine	Poletimber Well	17.3	58	141-170	Stand was third row thinned in 1998 under Calker Rd Red Pine (72-043-97-01). Average BA = 170. Not as quality of a site as stand to the north. Looks like it was thinned too early, still has low limbs in spots and crowns still have room to grow. Let grow another 10 years and then look to thin.
127	4130 - Aspen	Poletimber Well	34.5	28	Immature	Stand harvested in 1987 under contract 72-031-87-01. Stand is just reaching pole size class, diameters become larger as you go up the slope.
201	4139 - Aspen, Mixed Deciduous	Poletimber Medium	11.1	48	Unspecified	A couple of aspen pockets surrounded by open areas. Open areas consist of red maple and cherry. Some red pine is seeding in along the adjacent red pine stand. Leave stand for species diversity until adjacent stands are harvested.

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Grayling Mgt. Unit

Report 8 – Forested Stands

Compartment: 244
Year of Entry: 2017

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
215	4130 - Aspen	Poletimber Well	34.4	38	Unspecified	Mixed aspen stand, some areas have a good amount of hardwood regeneration in the understory. Let stand grow another 10 years and then look to harvest. .
218	42110 - Planted Red Pine	Poletimber Well	1.3	58	201+	Poor quality, low branching, was never thinned. A lot of two stemmed trees.
318	42110 - Planted Red Pine	Poletimber Well	9.5	58	171-200	Still short and limby, poor site. BA average = 200. Old comment: Short limby poor site red pine plantation. Stand is not self pruning. A few scattered quaking aspen, no understory. Too small acreage to 3rd row thin or treat another way.



Stand	Cover Type	Acres	Managed Site	General Comments:
1	330 - Low-Density Trees	400.0	No	Stand is inside Range 40 fenced in area. Some areas are A3 while others are open grassland, heavy Military activity throughout. A few scattered mature aspen are still standing but most have blown over.
2	6225 - Bog	8.0	No	Leatherleaf bog surrounding a small pond. A few small spruce, white pine and tamarack on east end of bog.
3	330 - Low-Density Trees	2.6	No	Scattered aspen, cherry, red maple and oak. Most trees are saplings and poles. Stand includes FP 512.
7	330 - Low-Density Trees	17.0	No	Scattered cherry trees with some small aspen pockets and a couple of large red pine. Stand includes Firing Point 513 and 514.
8	310 - Herbaceous Openland	0.8	No	Small opening with aspen filling in on the edges, stand includes Military Firing Point 510.
12	310 - Herbaceous Openland	0.7	No	Opening with two gas wells, State Maple Forest A2-10 and B1-10. Filling in with aspen from adjacent harvest.
19	310 - Herbaceous Openland	1.3	No	An opening with a few scattered cherry and aspen trees, also some hawthorn. May have been an old landing for surrounding stand.
22	310 - Herbaceous Openland	1.6	No	Small grassy opening with scattered hawthorn and cherry. Aspen is creeping in around the edges.
30	330 - Low-Density Trees	18.3	No	Open stand with scattered cherry and oak saplings. Stand is just outside Range 40 fence and has heavy military activity. Firing point 515 is at the north end.
31	330 - Low-Density Trees	2.0	No	Grassy opening with scattered aspen, cherry, and a few red maple poles. A few red pine seeding in from adjacent stand.
32	310 - Herbaceous Openland	1.0	No	Grassy Opening with a gas well, State Maple Forest D4-10.
35	310 - Herbaceous Openland	7.8	No	Grassy opening with a couple of cherry sprouts scattered throughout. This stand includes Military Firing Point 323.
36	310 - Herbaceous Openland	2.6	No	Grassy opening with two gas wells, State Maple Forest D4-11HD1 and State Maple Forest C3-11HD1.
37	6225 - Bog	8.0	No	Stand looks to be a bog, inside Range 40 fenced in area.
38	310 - Herbaceous Openland	1.2	No	Grassy opening with gas well, State Maple Forest C4-10.



Stand	Cover Type	Acres	Managed Site	General Comments:
40	6225 - Bog	1.8	No	Leatherleaf bog with a small island of jack pine growing in the middle. This stand is inside the Range 40 fenced in area.
43	122 - Road/Parking Lot	4.4	No	Sherman Road and adjacent powerline right of way.
200	6225 - Bog	25.4	No	Lowland bog around barnes lake, inside Range 40 fenced in area.
230	510- Water (OI)	3.2	No	Small pond surrounded by leatherleaf bog. "Lews Pond"
231	500 - Water	2.6	No	Old comments indicate this is Bull Frog Lake, inside Range 40 fenced in area.
232	510- Water (OI)	3.5	No	Part of barnes lake when water is high, inside Range 40 fenced in area.
401	310 - Herbaceous Openland	1.3	No	Grassy opening with some sumac on the southern edge, includes two gas wells State Maple Forest C2-10 and State Maple Forest D1-10.
402	31029 - Grass (OI)	0.7	No	Grassy opening with gas well, State Maple Forest B3-10.
403	310 - Herbaceous Openland	2.5	No	Grassy opening with a few cherry and aspen saplings filling in. It looks like this was an old military firing point that is no longer being used.
412	330 - Low-Density Trees	49.3	No	Looks like it may have been an old apple orchard, a few scattered apple trees throughout stand. Cherry, hawthorn, and a couple of aspen pockets included. Stand includes a gas well, State Maple Forest A4-10. Small endangered species signs found throughout the stand.
416	310 - Herbaceous Openland	2.6	No	Open stand with a few scattered cherry, includes Firing Point 511.
417	310 - Herbaceous Openland	4.8	No	Grassy opening with scattered cherry trees, aspen is filling in around the edges. It looks like this used to be an old firing point. There is a large slash pile left from adjacent harvest in stand 6.
422	31029 - Grass (OI)	0.8	No	Small grassy opening with a couple of cherry trees. Some beech seedlings filling in around the edges.
423	310 - Herbaceous Openland	8.3	No	Grassy opening with a few cherry trees and some aspen. This stand has a gas well within it, State Maple Forest D2-10.