



Compartment Review Presentation

Grayling Forest Management Unit

Compartment 261

Entry Year 2015

Acreage: 1,908

County Crawford

Management Area: Camp Grayling

Revision Date: 07/29/2013

Stand Examiner: Patrick Potter

Legal Description:

T27N, R02W Sections 13, 14 and 15.

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. There is a cooperative agreement between the MDNR and DMA (Habitat Management Plan for the Range 30 Complex) which was established 1986 and is currently being reviewed. There is also the North Camp Grayling Pine Barrens Management Plan. This project represents a cooperative effort between the MDA, MDNR & MNFI to restore a globally and locally rare, pine barrens ecosystem to North Camp Grayling.

Soil and topography:

The topography of this compartment is flat with some rolling terrain in the east and west ends. The soils consist of Grayling and Rubicon Sands.

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

The compartment consists of three sections that are entirely state owned and are under the 1935 long-term lease agreement L-1479 (Act 154 P.A. 1935) with the Michigan National Guard, Department of Military Affairs. The agreement provides for use by the military during their encampment, with no permanent buildings or improvements to be erected. Military needs take precedence over resource management needs on long-term lease lands. The DNR will coordinate all prescribed activities with the National Guard to ensure they are compatible with military training needs.

Unique Natural Features:

There is the potential for rare dry prairie plants and insects to occur in upland grassy openings and pine barrens.

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

Special Management Designations or Considerations:

The compartment is part of the cooperative agreement between the MDNR and DMA (Habitat Management Plan for the Range 30 Complex) and the North Camp Grayling Pine Barrens Management Plan.

Watershed and Fisheries Considerations:

None at this time

Wildlife Habitat Considerations:

The compartment's wide range of cover types – ranging from mixed pine, aspen and oak, upland brush and super-canopy stature pine -- provide habitat for a variety of game and non-game wildlife species.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of ice-contact glacial outwash sand and gravel. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift are the Marshall Sandstone and Coldwater Shale. The Marshall was used as a building stone in the past. The nearest gravel pit is on Bald Hill and potential appears to be good on the upland areas. There has been no drilling and there are no oil and gas leases in this compartment. The closest production is the Conner's Marsh Field five miles to the east. The field produces gas from the Ordovician Prairie du Chien.

Vehicle Access:

Bucks East and West Truck Trail borders the north side of the compartment. North Wakely Bridge Road runs north and south between section 15 and 14 and Bald Hill Road runs through the east half of section 13. The rest of the compartment is surrounded by two tracks or a tank trails. However, there are very few two-tracks that extend into the center of each section. No existing roads need to be closed at this time. All new roads created through management activities are to be closed upon completion.

Survey Needs:

None at this time

Recreational Facilities and Opportunities:

There are no designated trails or facilities located with the compartment. Hunting is the main form of dispersed use.

Fire Protection:

County roads and open two-tracks provide good access to the compartment's dry upland types and in addition there is an existing fuel break along the north side of the compartment. Kyle lake is a good water point.

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

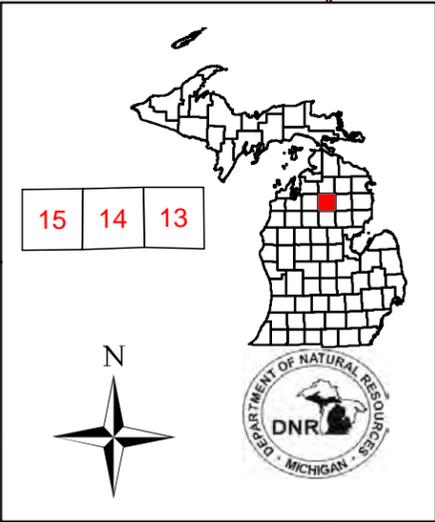
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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: 261
 T27N R02W Sec. 13, 14, 15
 County: Crawford
 Unit: Grayling
 YOE: 2015
 Acres: 1,908 GIS Calculated
 Examiner: Patrick Potter
 Map Revised: 09/03/2013
 Map Phase: Pre-Review



Stand #
 23
 (412)0 - A7
 Level 3 OI
 Level 4 Code
 Cover Type Code

Legend

- ◆ Unclassified Corners
- Miris Corners
- + Remonumented Section Corners
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Directional
- Horizontal (90 deg.)
- Oil
- Natural Gas
- Gas Condensate
- Gas Injection
- Gas Storage
- Liquefied Petroleum Gas Storage
- Gas Production and Brine Disposal
- Brine Disposal
- Dry Hole
- Water Injection
- Other Injection
- Observation
- Other
- Permitted Well Location
- Oil & Gas Wells Plugged Wells
- X Gate
- Berms
- Stream
- Intermittent Stream
- Lakes and Rivers
- State Forest Land

Treatments

- Clearcut (w/Reserves, Patch/Strip)
- Thinning (Crown, Low, Systematic)
- Planting (tree species)
- Prescribed Burn
- Site Preparation

Forest Stands

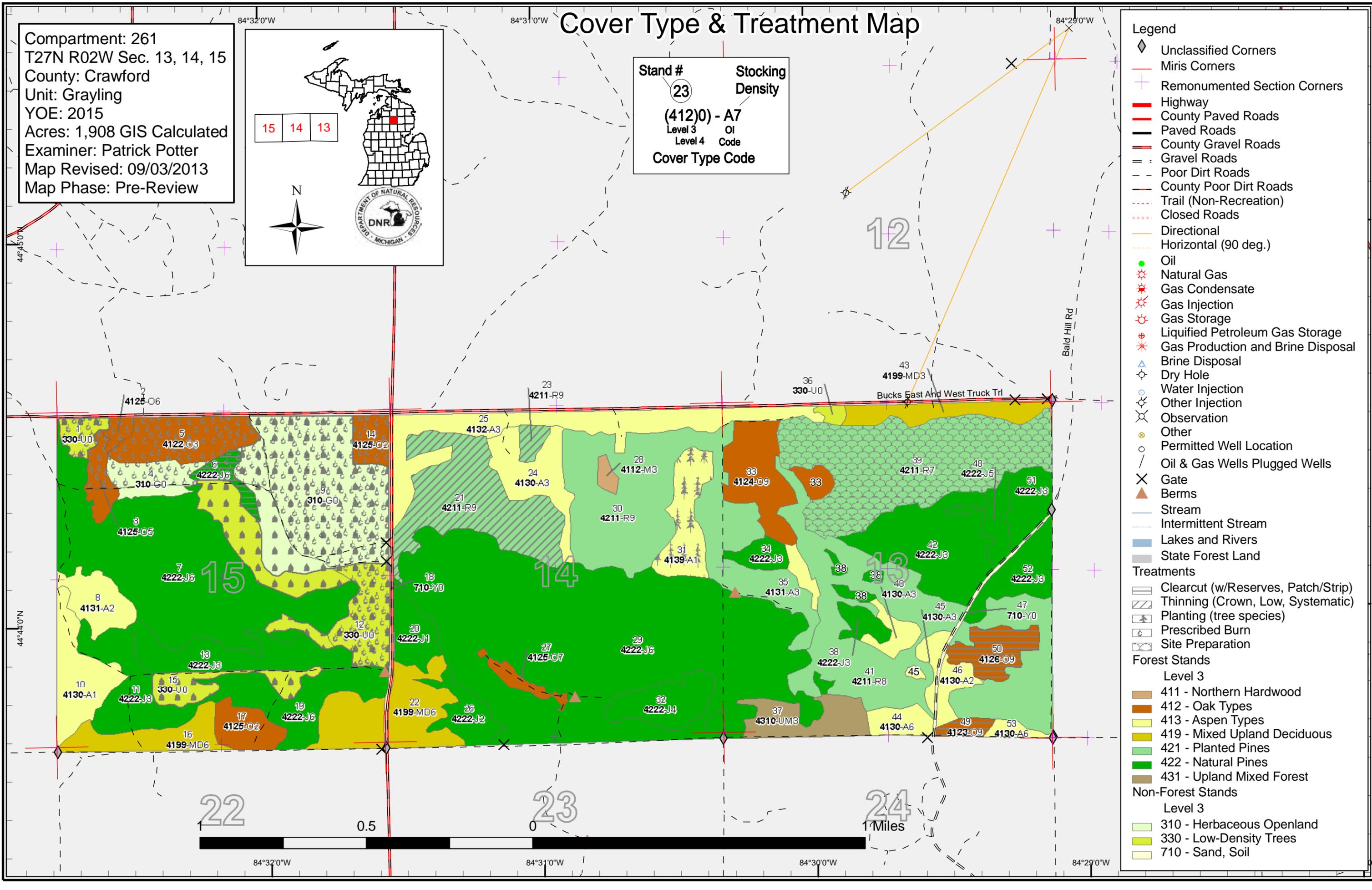
Level 3

- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 431 - Upland Mixed Forest

Non-Forest Stands

Level 3

- 310 - Herbaceous Openland
- 330 - Low-Density Trees
- 710 - Sand, Soil

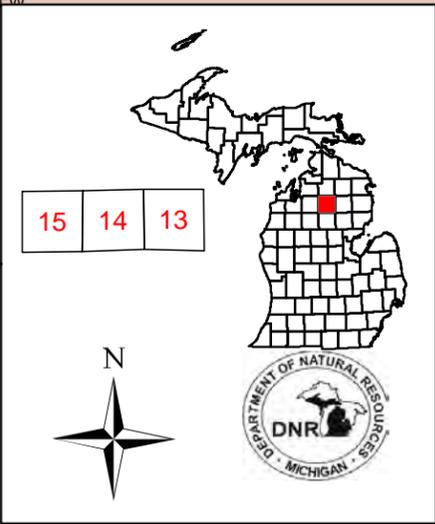


84°32'0"W 84°31'0"W 84°30'0"W 84°29'0"W

Special Conservation Areas & Site Conditions Map

84°28'0"W

Compartment: 261
 T27N R02W Sec. 13, 14, 15
 County: Crawford
 Unit: Grayling
 YOE: 2015
 Acres: 1,908 GIS Calculated
 Examiner: Patrick Potter
 Map Revised: 09/03/2013
 Map Phase: Pre-Review



Stand #
 23
 (412)0 - A7
 Level 3 OI
 Level 4 Code
 Cover Type Code

Legend

- + Remonumented Section Corners
- Miris Corners
- Stand Boundaries
- Site Condition Available
- 5C-002 Available w/ Constraints (Factor - Number)
- Available Factors W/ Constraints
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- Reviewable SCAs
- Proposed SCA
- Dedicated Special Conservation Areas
- Essential Habitat (Kirtland Warbler)
- Research, Development, and Military Lands

44°45'0"N

44°44'0"N

44°44'0"N

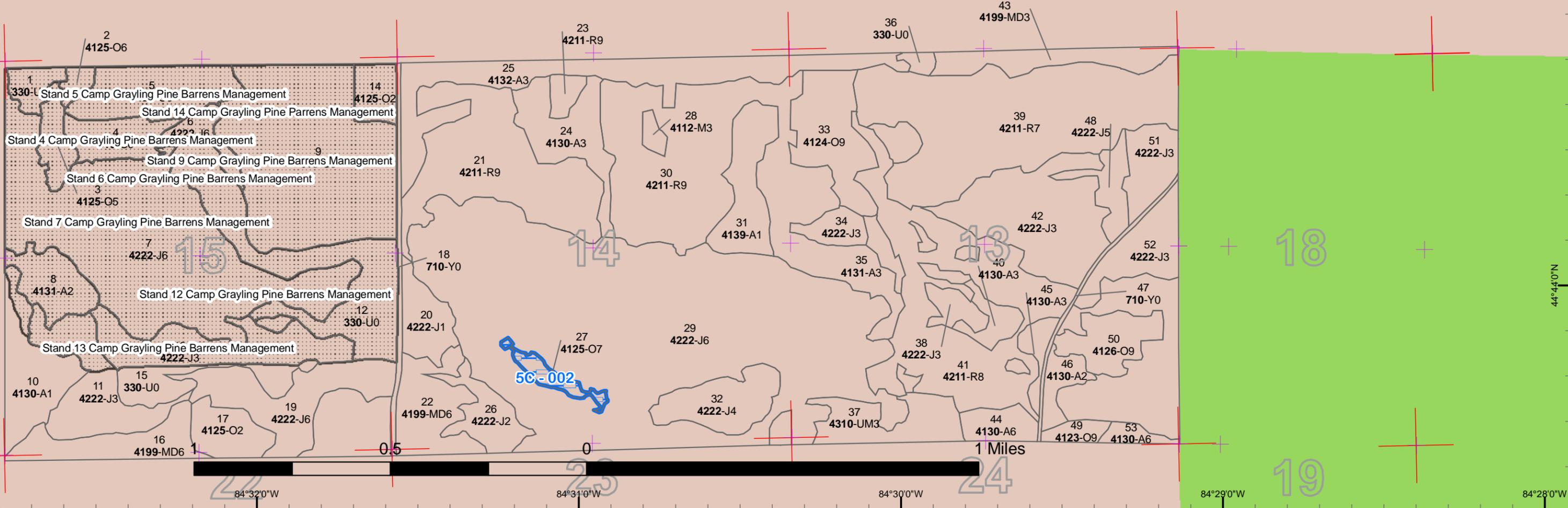
84°32'0"W

84°31'0"W

84°30'0"W

84°29'0"W

84°28'0"W



Report 1 – Total Acres by Cover Type and Age Class



	Age Class													Total	
	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 +		Uneven Age
Aspen	52	63	73	13	0	0	0	0	0	0	0	0	0	0	201
Herbaceous Openland	127	0	0	0	0	0	0	0	0	0	0	0	0	0	127
Jack Pine	0	70	16	672	0	0	8	0	0	0	0	0	0	0	765
Low-Density Trees	85	0	0	0	0	0	0	0	0	0	0	0	0	0	85
Mixed Upland Deciduous	0	0	67	23	0	0	0	0	0	0	0	0	0	0	89
Northern Hardwood	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
Oak	47	10	0	0	14	0	0	38	6	24	0	0	0	0	139
Red Pine	0	0	0	0	0	0	0	462	0	0	0	0	0	0	462
Sand, Soil	12	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Upland Mixed Forest	0	23	0	0	0	0	0	0	0	0	0	0	0	0	23
Total	323	170	155	707	14	0	8	500	6	24	0	0	0	0	1908



Report 2 – Proposed Treatment Summaries

Grayling Mgt. Unit
Year of Entry 2015

Compartment 261
Total Compartment Acres: 1,908

Acres by Treatment Type

Commercial Harvest - 108 Tree Planting - 25 Other - 320
Habitat Cut - 0 Opening Maintenance - 0

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Natural Pines	8	0	0	0	0	0	8
Oak Types	24	0	0	0	0	0	24
Planted Pines	0	0	0	0	76	0	76
Total	32	0	0	0	76	0	108



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
6	72261006- burn prep cut	8.1	42220 - Natural Jack Pine	High Density Pole	67		Harvest	Clearcut	3302 - Low Density Conifer Trees	Cmpt. Review Proposal

Prescription Final harvest if necessary to facilitate prescribed burning for pine barrens restoration.

Specs:

Other

Comments:

Next Burn per the North Camp Grayling Pine Barrens Management Plan.

Steps:

Proposed

Start Date: 10/01/2013

21	72261021-Cut	71.0	42110 - Planted Red Pine	High Density Log	77	141-170	Harvest	Crown Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal
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Prescription Thinned within the last 10 years. Recommending another thinning decrease the BA and to increase the growth and to try to get some natural Red Pine regeneration. Thin to 90 BA and scarify the soil/site as much as possible, but protect residual BA. Use military specifications for this sale.

Specs:

Other

Stand 30 within the compartment was thinned to 90 BA and some what of a blanket of natural Red Pine seedlings started within the understory.

Comments: Want to try to mimic the same results in this stand as with what occurred in stand 30.

Next

If site/soils does not get scarified at the time of harvest due to a winter cut, want an FTP to scarify site/soil with anchor chains or some other method.

Steps:

Proposed

Start Date: 10/01/2014

23	72261023-Cut	5.0	42110 - Planted Red Pine	High Density Log	77	171-200	Harvest	Crown Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal
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Prescription Recommend a thinning to 90 BA and scarify soil/site during the harvest. Protect the residual and use military specification for the timber sale.

Specs: Treat with stand 21.

Other

Trying to mimic what happened within stand 30.

Comments:

Next

If site/soil does not get scarified during harvest due to a winter cut, want FTP for scarification of site with anchor chains or other method.

Steps:

Proposed

Start Date: 10/01/2014

49	72261049-Cut	5.1	4123 - Red Oak	High Density Log	94	111-140	Harvest	Clearcut	4131 - Aspen, Oak	Cmpt. Review Proposal
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Prescription Final harvest with no retention. Treat with stand 53 in compartment 260.

Specs:

Other

Comments:

Next

Monitor the success of regeneration the next treatment period. Acceptable regeneration would be a mix of Aspen, Conifer, oak, and red maple to meet a fully stocked stand. If natural regeneration is not acceptable do site prep as needed to plant red pine and if need do a herbicide treatment to release after the planting. Should naturally regenerate to and Aspen/Mixed Oak and Red maple stand of moderate to full stocked. Follow up with a regeneration survey. If

Steps:

Proposed

Start Date: 10/17/2013



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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50	72261050-Cut	18.6	4126 - White, Black, N. Pin Oak	High Density Log	94	51-80	Harvest	Clearcut with Reserves	4126 - White, Black, N. Pin Oak	Cmpt. Review Proposal
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Prescription Final harvest with reserves. Harvest all species except for the retention patches. Leave four 1/4-1/2 acre patches scattered throughout the stand. The retention patches should include a component of white oak.

Other Comments:

Next Steps: Monitor the success of regeneration the next treatment period. Acceptable regeneration would be a mix of Aspen, Conifer, oak, and red maple to meet a fully stocked stand. If natural regeneration is not acceptable do site prep as needed and plant red pine and if need do a herbicide treatment to release the red pine.

Proposed Start Date: 10/01/2014

39	72261039-Prep	120.6	42110 - Planted Red Pine	Low Density Log	77	1-50	Site Prep	Scarification		Cmpt. Review Proposal
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Prescription Do Scarification for site prep for natural regeneration for

Other Comments:

Next Steps: Regeneration survey

Proposed Start Date: 10/01/2013

31	72261031-Plant	25.4	4139 - Aspen, Mixed Deciduous	Low Density Sapling	2		Tree Planting	Machine Plant	42110 - Planted Red Pine	Cmpt. Review Proposal
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Prescription Herbicide all or a portion of the stand. Southend of stand not heavy to regeneration of Aspen and Red maple. Following the herbicide treatment, trench and plant to Red Pine.

Other Comments: This option would depend on military approval and upper management.

Next Steps: Trench and Plant to Red Pine following herbicide treatment. Follow up with a regeneration survey for artificial regeneration when required. Planting should be fully stocked at this time.

Proposed Start Date: 10/01/2013

2	72261002-Burn	3.8	4125 - Black, N. Pin Oak	High Density Pole	46	81-110	Prescribed Burn	Unspecified	3301 - Low Density Deciduous Trees	Cmpt. Review Proposal
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Prescription Prescribed burn for pine barrens restoration. Part of Unit 6 of the North Camp Grayling Pine Barrens Management Plan area.

Other Comments:

Next Steps: Periodically burn; refer to the Plan for guidance. Avoid burning during the same year as the adjacent Unit 7.

Proposed Start Date: 10/01/2013



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
3 72261003-Burn	6.1	4125 - Black, N. Pin Oak	Medium Density Pole	46	1-50	Prescribed Burn	Unspecified	3301 - Low Density Deciduous Trees	Cmpt. Review Proposal

Prescription Prescribed burn for pine barrens restoration. Part of Unit 6 of the North Camp Grayling Pine Barrens Management Plan area.

Specs:

Other

Comments:

Next Steps: Periodically burn; refer to the Plan for guidance. Avoid burning during the same year as the adjacent Unit 7.

Proposed

Start Date: 10/01/2013

5 72261005-Burn	38.7	4122 - Oak, Pine	High Density Sapling	4		Prescribed Burn	Unspecified	3301 - Low Density Deciduous Trees	Cmpt. Review Proposal
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Prescription Prescribed burn for pine barrens restoration. Part of Unit 6 of the North Camp Grayling Pine Barrens Management Plan area.

Specs:

Other

Comments:

Next Steps: Periodically burn; refer to the Plan for guidance. Avoid burning during the same year as the adjacent Unit 7.

Proposed

Start Date: 10/01/2013

6 72261006-burn	5.6	42220 - Natural Jack Pine	High Density Pole	67		Prescribed Burn	Unspecified	3302 - Low Density Conifer Trees	Cmpt. Review Proposal
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Prescription Prescribed burn for pine barrens restoration. Part of Unit 6 of the North Camp Grayling Pine Barrens Management Plan area.

Specs:

Other Comments: This is standing Jack Pine. Check with the fire specialist for burning. Stand small and small in volume for sale.

Next Steps: Periodically burn; refer to the Plan for guidance. Avoid burning during the same year as the adjacent Unit 7.

Proposed

Start Date: 10/01/2013

14 72261014-Burn	10.2	4125 - Black, N. Pin Oak	Medium Density Sapling	17		Prescribed Burn	Unspecified	3303 - Mixed Low Density Trees	Cmpt. Review Proposal
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Prescription Prescribed burn for dry sand prairie/pine barrens restoration. Part of Unit 7 of the North Camp Grayling Pine Barrens Management Plan area.

Specs:

Other

Comments:

Next Steps: Periodically burn; refer to the Plan for guidance. Avoid burning during the same year as the adjacent Unit 6.

Proposed

Start Date: 10/01/2013



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
1	NF_72261001- Burn	7.9	3303 - Mixed Low Density Trees				Prescribed Burn	Unspecified	3303 - Mixed Low Density Trees	Cmpt. Review Proposal
<p><u>Prescription</u> Prescribed burn for pine barrens restoration. Part of Unit 6 of the North Camp Grayling Pine Barrens Management Plan area.</p> <p><u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> Periodically burn; refer to the Plan for guidance. Avoid burning during the same year as the adjacent Unit 7.</p> <p><u>Proposed Start Date:</u> 10/01/2013</p>										
4	NF_72261004- Burn	12.1	3105 - Mixed Upland Herbaceous				Prescribed Burn	Unspecified	3105 - Mixed Upland Herbaceous	Cmpt. Review Proposal
<p><u>Prescription</u> Prescribed burn for pine barrens restoration. Part of Unit 6 of the North Camp Grayling Pine Barrens Management Plan area.</p> <p><u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> Periodically burn; refer to the Plan for guidance. Avoid burning during the same year as the adjacent Unit 7.</p> <p><u>Proposed Start Date:</u> 10/01/2013</p>										
9	NF_72261009- Burn	87.9	3105 - Mixed Upland Herbaceous				Prescribed Burn	Unspecified	3105 - Mixed Upland Herbaceous	Cmpt. Review Proposal
<p><u>Prescription</u> Prescribed burn for dry sand prairie/pine barrens restoration. Part of Unit 7 of the North Camp Grayling Pine Barrens Management Plan area.</p> <p><u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> Periodically burn; refer to the Plan for guidance. Avoid burning during the same year as the adjacent Unit 6.</p> <p><u>Proposed Start Date:</u> 10/01/2013</p>										
12	NF_72261012- Burn	26.4	3302 - Low Density Conifer Trees				Prescribed Burn	Unspecified	3302 - Low Density Conifer Trees	Cmpt. Review Proposal
<p><u>Prescription</u> Prescribed burn for pine barrens restoration. Part of Unit 6 of the North Camp Grayling Pine Barrens Management Plan area.</p> <p><u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u></p> <p><u>Proposed Start Date:</u> Unspecified</p>										
12	NF_72261012- Burn	26.4	3302 - Low Density Conifer Trees				Prescribed Burn	Unspecified	3302 - Low Density Conifer Trees	Cmpt. Review Proposal
<p><u>Prescription</u> Prescribed burn for pine barrens restoration. Part of Unit 6 of the North Camp Grayling Pine Barrens Management Plan area.</p> <p><u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> Periodically burn; refer to the Plan for guidance. Avoid burning during the same year as the adjacent Unit 7.</p> <p><u>Proposed Start Date:</u> 10/01/2013</p>										



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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Total Treatment
Acreage Proposed: 479.0



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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#Type! #Type!

Prescription
Specs:

Other
Comment:

Next
Steps:

Proposed
Start Date: #Type!

Limiting Factor

Total Treatment
Acreage Proposed: 0.0

Report 5 – Site Conditions

Grayling Mgt. Unit
Patrick Potter : Examiner

Compartment 261
Year of Entry 2015

Availability for Management

Total Acres			Dominant Site Conditions		
Acres Available	Acres Not Available		No	5C	
201	201		Aspen	201	
771	771		Jack Pine	771	
89	89		Mixed Upland Deciduous	89	
3	3		Northern Hardwood	3	
139	139		Oak	133	6
462	462		Red Pine	462	
23	23		Upland Mixed Forest	23	
1,689	1,689		Total Forested Acres	1,683	6
	100%		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
002	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6				
Comments:							



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
Stand 10 sm Camp Grayling Pine Barrens Management	Habitat Areas or Corridors	Other Habitat Area	SCA	3.5
Comments	Part of the stand that is north of two-track is part of block 6 of the Grayling Pine Barrens Management Area			
Stand 2 Camp Grayling Pine Barrens Management	Habitat Areas or Corridors	Other Habitat Area	SCA	3.8
Comments	Prescribe Burn for Pine Berrains management. Part of Unit 6 of the Military Pine Berrains Plan.			
Stand 1 Camp Grayling Pine Barrens Management	Habitat Areas or Corridors	Other Habitat Area	SCA	7.9
Comments	Prescribe burn for Pine Berrains. Part of Unit 6 of the Military Pine Berrains plan.			
Stand 6 Camp Grayling Pine Barrens Management	Habitat Areas or Corridors	Other Habitat Area	SCA	8.1
Comments				
Stand 14 Camp Grayling Pine Parrens Management	Habitat Areas or Corridors	Other Habitat Area	SCA	10.2
Comments	Prescribe Burn for Pine Berrains management. Part of Unit 7 of the Military Pine Berrains Plan.			
Stand 3 Camp Grayling Pine Barrens Management	Habitat Areas or Corridors	Other Habitat Area	SCA	10.4
Comments	Prescribe Burn for Pine Berrains management. Part of Unit 6 of the Military Pine Berrains Plan.			
Stand 11 sm Camp Grayling Pine Barrens Management	Habitat Areas or Corridors	Other Habitat Area	SCA	12.2
Comments	Portion of the stand that is north of the two-track is part of the Grayling Pine Barrens Area.			
Stand 4 Camp Grayling Pine Barrens Management	Habitat Areas or Corridors	Other Habitat Area	SCA	16.4
Comments	Prescribe Burn for Pine Berrains management. Part of Unit 6 of the Military Pine Berrains Plan.			



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
Stand 8 Camp Grayling Pine Barrens Management	Habitat Areas or Corridors	Other Habitat Area	SCA	18.2
Comments Stand is part of block 6 in the Camp Grayling Pine Barrens Management Plan.				
Stand 5 Camp Grayling Pine Barrens Management	Habitat Areas or Corridors	Other Habitat Area	SCA	31.7
Comments Prescribe Burn for Pine Berrains Management. Part of Unit 6 of the Military Pine Berrains Plan.				
Stand 13 Camp Grayling Pine Barrens Management	Habitat Areas or Corridors	Other Habitat Area	SCA	36.3
Comments Stand is part of block 6 of the Camp Grayling Pine Barrens Management Plan.				
Stand 12 Camp Grayling Pine Barrens Management	Habitat Areas or Corridors	Other Habitat Area	SCA	58.1
Comments Prescribe Burn for Pine Berrains Management. Part of Unit 6 of the Military Pine Berrains Plan.				
Stand 9 Camp Grayling Pine Barrens Management	Habitat Areas or Corridors	Other Habitat Area	SCA	110.2
Comments Prescribe Burn for Sand Prairie management. Unit 7 of the Military Pine Berrains Plan.				
Stand 7 Camp Grayling Pine Barrens Management	Habitat Areas or Corridors	Other Habitat Area	SCA	151.1
Comments Stand is part block 6 of Camp Grayling Pines Barrens Management Plan				



Report 7 – DEDICATED CONSERVATION AREA DETAILS

* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

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

Conservation Area	Type	Description
SCA	Archaeological Site	An aquatic or terrestrial area of the State that contains physical remains of human occupation. These are sites of cultural and historical significance that may occur upon terrestrial areas and Great Lakes bottomlands. They include thousands of Native American settlements and burial sites, as well as French and British outposts, nineteenth century logging camps, mines and homesteads. Beneath the waters of the Great Lakes, there are shipwrecks and other remains documenting the maritime trade. Such sites may be identified by Natural heritage data from the State Historic Preservation Office. Proposed treatments in this compartment will be implemented in such a manner as to maintain the integrity of these sites. Due to the sensitive nature of this information, no further detail about location is available.
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.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	4125 - Black, N. Pin Oak	High Density Pole	3.8	46	81-110	Small poor quality Oak stand(pole/log). Stand under long term military lease and the northside borders Bucks East/West seasonal Rd. SI=46. Some scattered Jack pine and BT aspen throughout stand. Stand located on ridge and slopes.
3	4125 - Black, N. Pin Oak	Medium Density Pole	10.4	46	1-50	Sparse Oak/Jack pine stand located on ridge and slopes. Scattered Oak/Jack pine sapling/seedlings in understory. Stand is under long term military lease and has old signs of military use by tracked vehicles.
5	4122 - Oak, Pine	High Density Sapling	31.7	4		Natural Oak/Jack pine sapling/seedling stand with some scattered BA left after harvest(trees less than 4" left and now 4"). Stand was harvested under contract 720430501, 5 Finger Jack in 2008. Stand is under long term military lease and part of the military's pine barrens plan. Medium stocked natural Jack pine seedlings in understory.
6	42220 - Natural Jack Pine	High Density Pole	8.1	67		Natural Jack pine stand(pole/log size) and of different ages within stand. Stand is under long term military lease. Stand is part of block 6 of the Camp Grayling Pine Barrens Management area. Follow the Pine Barrens plan.
7	42220 - Natural Jack Pine	High Density Pole	151.1	37	81-110	Large Jack pine pole stand with some pockets of mixed deciduous trees throughout stand. Example: 4 acre Quaking Aspen stand in the northwest corner(pole size). Stand is under long term military lease and posted as Kirtland warbler habitat under an agreement with military (See Range 30 Complex management plan). Stand is also part of block 6 of the Camp Grayling Pine Barrens Management area healthy.. New as well as old military use exists in and in the nearby stand 9. Stand is past the age for KW. No treatment recommended.
8	4131 - Aspen, Oak	Medium Density	18.2	4	1-50	Oak/Aspen regen with scattered Oak pole timber. Approximately 10 to 20 BA of Oak timber was left after harvest in 2008 under contract 720440501. This was in the previous prescription. A couple of pockets exist of more denser Oak within std . Stand is part of block 6 of the Camp Grayling Pine Barrens Management area. Follow the Pine Barrens plan.
10	4130 - Aspen	Low Density Sapling	29.0	16		
11	42221 - Natural Jack Pine, Mixed Deciduous	High Density Sapling	33.7	16		New stand added. Jack pine std mixed with deciduous species. Mostly Jack pine of different age classes (sapling-small pole size) mixed with Quaking Aspen and Oaks. Some larger pole size Jack pine in the south. Two track traverses along the south edge and through the std. Stand is under long term military lease.
13	42220 - Natural Jack Pine	High Density Sapling	36.3	16		Young natural regenerating std of Jack pine. Some small single and patches of Jack pine pole timber scattered throughout std. This pole timber was small Jack pine that was left after the harvest in 1996 (Wakeley West Jack). Stand is under long term military lease.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
14	4125 - Black, N. Pin Oak	Medium Density	10.2	17		Small Oak stand (sapling/pole) located on the west side of N. Wakeley Bridge Rd at the intersection of Bucks East/West. Stand is under military lease. Mostly regenerating from stump sprouts. Some aspen and Jack pine scattered throughout stand.
16	4199 - Other Mixed Upland Deciduous	High Density Pole	22.7	34	81-110	Young pole size Oak/Aspen stand with scattered Red Pine. Oak is mostly of stump sprouts (2-5 in clumps and some single stems) Aspen scattered throughout stand and in pockets. Aspen of the same age and older. Same goes for the Red pine. South side borders tank trail. Stand is under long term military lease.
17	4125 - Black, N. Pin Oak	Medium Density	15.1	4		Immature Oak stand mixed with some pine. Stand is regenerating by stump sprouts and connected roots. Stand meets acceptable regeneration standards. Some existing advanced regen in small pole size (both Oak/pine-approx 5 to 10 BA). Stand is under long term military lease. Two track traverses through stand.
19	42220 - Natural Jack Pine	High Density Pole	37.4	37	51-80	Jack pine stand with scattered Oak throughout the north side of stand. Oak is of saw and pole size and somewhat poor quality. Jack pine is of mutple ages throughout. Stand is located on side slope and valley bottom. Stand is under long term military lease. Recommend no treatment.
20	42220 - Natural Jack Pine	Low Density Sapling	15.5	37		Jack pine stand mixed with other deciduous species. (25-30% crown closure). Small patches of Quaking aspen. Open grown Jack pine of poor quality Scattered patches of cherry brush. Stand is under long term military lease. Old tank trail on west side of stand between stand and N. Wakeley Bridge Rd.
21	42110 - Planted Red Pine	High Density Log	71.0	77	141-170	Planted Red pine stand. Age 77 with SI=64. Rows not distinguishable. Stand was thinned in 2006/2008, under contract 720050501. Std was to be thinned to 120 BA. (BA swings 100,120,160 and 200). Skid trails, landings and road regenerating to Red pine (1-5" seedlings). Std is under long term military lease. Oak saplings in understory.
22	4199 - Other Mixed Upland Deciduous	High Density Pole	47.0	26	1-50	Young Oak stand mixed with some Red maple, Aspen, Jack pine and a trace amount of Red pine. Stand last harvested in 1986. Stand under long term military lease. N. Wakeley Bridge RD traverses north/south through the std. Oak and other spices mostly of stump sprout origin. Recommend no treatment.
23	42110 - Planted Red Pine	High Density Log	5.0	77	171-200	Red pine stand planted. Small acreage. Stand is under long term military lease. Understory is Red maple Oak saplings.
24	4130 - Aspen	High Density Sapling	27.0	16		Young Aspen stand mixed with other deciduous spices. Some pine as well. (Red maple/Oak/Red and Jack pine). Finak harvested in 1996 with an SI=61. Stand is under long term military lease.
25	4132 - Aspen, Jack Pine	High Density Sapling	58.3	24		Long narrow strip last harvested in 1988 along the south side of Bucks East/West. Sapling/pole size throughout of Jack pine/Aspen/Oak mixed and unmixed (To small of acreage to type out as separate stds). Stand is under long term military lease. Some Red pine sapling/pole mixed throughout std. Stand should be small pole size in the next ten years.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
26	42221 - Natural Jack Pine, Mixed Deciduous	Medium Density	15.6	26		Young Jack pine stand mixed with Oak and some Aspen. Std last harvested in 1986. Oak is mostly of stump sprouts. Stand is under long term military lease. Recom
27	4125 - Black, N. Pin Oak	Low Density Log	6.3	83	1-50	Long narrow stand of mixed mature Oak with Oak and Jack pine seedling/saplings in the understory. Stand is under long term military lease. Two track trail traverses through stand. Stand was treated with a shelterwood cut in 1996. Firewood cutters have picked it over.
28	4112 - Maple, Beech, Cherry Association	High Density Sapling	3.1	16		Immature Red maple/Aspen/Oak sapling stand. Small acreage and dominant to Red maple. Some Red pine saplings and seedlings in understory. Last harvested in 1996. SI=61 aspen.
29	42220 - Natural Jack Pine	High Density Pole	316.7	37		Large immature Jack pine stand with some Aspen/Oak scattered throughout it. Stand is under long term military lease and there is an agreement to manage stand for Kirtlands Warbler. Stand is the result of fire (Bald Hill fire 1975). Recommend no treatment at this time.
30	42110 - Planted Red Pine	High Density Log	127.4	77	81-110	Planted Red pine stand. Stand thinned under contract 726070501, Bucks E/W Red Pine. Thinned to 90 BA, cut in early winter 2010. Little snow that year and some soil scarification occurred. Advanced Oak regen exist and Red maple regen coming in after harvest in understory. Lots of Red pine seedlings and some Jack pine in understory(1-5"). Stand under long term military lease. Recommend no treatment this entry year. Allow Red pine regen to establish more and than remove overstory. SI=67
31	4139 - Aspen, Mixed Deciduous	Low Density Sapling	25.4	2		Previously R9 stand final harvested in 2010 under contract 726070501, Bucks E/W Red Pine. FTP proposed to burn and has not been burned. Management objective is Red pine, but stand is regenerating to Aspen/Red maple. Recommend change management objective to Aspen/mixed deciduous and let regenerate to this cover type. Stand is under long term military lease.
32	42220 - Natural Jack Pine	Low Density Pole	25.7	37	1-50	Jack pine stand. Last harvested in 1996. All Jack pine that was not merchantable was left. Jack pine is now young pole size with an undersory of Jack pine, Oak and Aspen. Stand is under long term military lease.
33	4124 - Red with White Oak	High Density Log	37.7	77	81-110	Mixed std of Red pine and Oak. Std was thinned under contract 720090501. Previous a mature Oak std with Red pine scattered throughout stand. Thinned to 60-70 BA. Red pine is like super canopy over Oak. Red pine smaller crown dia. than Oak. Oak is showing up as the most dominant overstory even though it is shorter than Red pine. Std is under long term military lease. Red maple in under story a long with some Oak regen. Trace amount of Red pine seedlings as well.
34	42220 - Natural Jack Pine	High Density Sapling	8.3	37		Small pocket of Jack pine sapling/pole size within Red pine std created by the 1975 Bald Hill fire. Stand is under long term military lease.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
35	4131 - Aspen, Oak	High Density Sapling	5.0	37		Small pole/sapling stand of Oak and Aspen established due to 1975 Bald Hill fire. Scattered supercanopy Red pine in overstory that escaped fire. Std under long term military lease.
37	4310 - Pine, Oak Mix	High Density Sapling	23.2	16		Jack pine sapling std with pockets of Oak and Aspen. Some Oak and Aspen overtopping Jack pine, but all of the same age. Std is under long term military lease. Also some Red pine saplings scattered throughout the std.
38	42220 - Natural Jack Pine	High Density Sapling	12.1	37		Scattered pocket of Jack pine within an Red pine std. Jack pine is sapling/pole size. Created as a result of the Bald Hill fire in 1975. Stand/stands are under long trem military lease.
39	42110 - Planted Red Pine	Low Density Log	120.6	77	1-50	Mature Red pine stand with an understory regenerating to an Aspen/Red maple/Oak (sapling). Stand was Seed tree cut, leaving 30-50 BA in clumps every 100 ft, under contract 726180801 Bucks E/W Seed Tree. Completed in Feb 2010. Late summer harvest was not done to scarify soil. Understory consists of advanced Oak regen and Red maple that has took off and resprouted after harvest. Some 1-5 inch Red pine seedlings scattered throughout the stand. .
40	4130 - Aspen	High Density Sapling	7.9	37		Stand is a Aspen over Jack stand. Some Oak. All the same age and a result of the 1975 Bald Hill fire. Stand is under long term military lease.
41	42110 - Planted Red Pine	Medium Density Log	138.4	77	51-80	Mature planted Red Pine stand. Harvested under contract 720000001 in 2000. Stand was shelterwood cut. Some scattered Oak was left throughout stand. East side of stand borders two track and a portion of the south. (approx. 5-10 BA of Oak, especially on soth end).
42	42220 - Natural Jack Pine	High Density Sapling	56.1	37		Dence Jack pine sapling pole standd as a result of the 1975 Bald Hill fire. Pockets or vorties left by fire throughout std. Mainly of Red pine but some Jack pine. 70 to 90 BA with a Jack pine sapling understory. Stand is under long term military lease. Stand is also under a agreement between military and DNR for KW management.
43	4199 - Other Mixed Upland Deciduous	High Density Sapling	19.7	24		Mixed std of Oak/Aspen and some Jack pine scattered and in pockets. Harvested in 1988. Recommend no treatment. Stand is under long term military lease. Mostly of sapling size with some pole timber mixed in.
44	4130 - Aspen	High Density Pole	10.0	26		Young Aspen pole stand (Big-tooth). Recommend no treatment at this time. When treated, treat with adjacent stand in compartment 260 to the south. Two track traverses east/west on southside of stand. East side also borders Bald Hill Rd. Stand is under long term military lease. West side of std is Quaking Aspen
45	4130 - Aspen	High Density Sapling	7.3	16		Young healthy aspen stand.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
46	4130 - Aspen	Medium Density	8.7	2		Immature Aspen stand mixed with Red maple and some Oak West side of stand borders Bald Hill Rd. Final harvested under contract 720000001 in 2000. In the process of regenerating. Stand meets regen standards for Aspen mixed with other deciduous species.
48	42220 - Natural Jack Pine	Medium Density Pole	11.6	37		
49	4123 - Red Oak	High Density Log	5.1	94	111-140	Small mature mixed Oak stand has some other deciduous species mixed along with some Red pine. South side borders two track.
50	4126 - White, Black, N. Pin Oak	High Density Log	18.6	94	51-80	Oak/Aspen std. 3-4 acre patch of Aspen pole timber in the west portion of the stand. Heavy understory of Oak and Red maple. Located on the east side of Bald Hill Rd. Red pine that was not treated with adjacent Red pine sale.
51	42220 - Natural Jack Pine	High Density Sapling	16.1	37	1-50	Immature Jack pine stand as a result of a Bald Hill fire. Some Aspen/Mixed Oak in the north and east side of stand. Stand also has some scattered Red pine of sawlog size throughout it that escaped the fire. (40-150 BA) Stand is approaching small pole size and will reach this status before the next inventory barring no natural site change causes. Stand is under military lease. South side of stand borders Bald Hill Rd. Some damage (broken tops) due to late winter snow/ice storm 2012.
52	42220 - Natural Jack Pine	High Density Sapling	21.2	37	1-50	Natural immature Jack pine stand mixed with some Aspen/Oak. Also, stand has a pocket of Red pine in the southeast portion of the stand. (40-150 BA). Stand is a result of a Bald Hill fire. Stand is approaching small pole size. Some damage (broken tops) due to a late winter snow/ice storm 2012
53	4130 - Aspen	High Density Pole	4.5	26		New stand added. Small young stand of Aspen mixed with Red maple. South side borders two track. Recommend no treatment at this time.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	3303 - Mixed Low Density Trees	7.9	Natural Regen	Jack Pine	Stand swapped from Forested to Non-Forested. Std final harvested in 2008. Kind of a frost pocket. Some Oak and Jack pine seedling and small saplings around perimeter mostly. Std is under long term military lease. Needs more time to regenerate.
4	3105 - Mixed Upland Herbaceous	16.4	Yes	Low	
9	3105 - Mixed Upland Herbaceous	110.2	Natural Regen	Medium	Large upland herbaceous opening. Old military parachute drop zone. Still used extensively by military for training. Stand is under long term military lease. East side of stand borders N Wakely Bridge Rd and north side Bucks East West. Stand has expanded some since previous inventory. Stand has been recommended for prescribe burn for pine berrains management..
12	3302 - Low Density Conifer Trees	58.1	Natural Regen	Jack Pine	Stand swapped from Forested to Non-Forested. Std was harvested in 2008 under contract 720430501. Stand was not replanted due to military training and lease. Old note says std will be burned within the next 10 years for military pine berrian mgt. A low to medium stocking of natural regen exist throughout the std, but mostly seedling size. A few scattered clump or single Jack pine trees exist throughout std tha were unmercantable were left when std was harvested. Recommend no treatment.
15	3303 - Mixed Low Density Trees	16.8	Natural Regen	Jack Pine	New stand added. Std is a mix of low density trees of Oak/Jack pine and Quaking Aspen. Open grown of different ages. Std is dominantly open with grasses and sedges, blueberry and cherry brush. No recommendation. Std is under long term military lease. Trees are sapling to log size.
18	710 - Sand, Soil	7.7	No	Unspecified	North Wakeley Bridge Road (County Rd - seasonal at times and closed off for military training at times also).
36	3303 - Mixed Low Density Trees	2.6	No	Unspecified	Small opening (herbaceous) with Jack pine and Oaks on perimeter. Some Jack pine seedling throughout stand. Stand was a possible logging landing site in a frost pocket. Northside borders Bucks East West. Stand is under long term military lease.
47	710 - Sand, Soil	4.3	No	Unspecified	Bald Hill Road (county rd).