

# **Compartment Review Presentation**

**Newberry Forest Management Unit** 

Compartment 42030 Entry Year 2018

Acreage: 2,183
County Luce

Management Area: Deer Park

Revision Date: 2016-08-22

Stand Examiner: Matt Payment

**Legal Description:** 

T49N R09W Sections 7 & 18 T49N R10W Sections 1, 10-15

### **Identified Planning Goals:**

Timber management, wildlife habitat, and recreation are the main uses of the compartment. The overriding goal is to maintain or improve the forest health, productivity and diversity of the area to promote and enhance these uses. Treatments prescribed will help ensure the sustainability of the forest resource and continue to enhance the quality of the wildlife habitat. The jack pine stands prescribed for treatment have suffered damage from Jack Pine Budworm outbreaks. Management of these stands should be a high priority before additional decline and mortality occurs. All jack pine stands will be scarified for natural regeneration and followed by planting if necessary. Additional upland timber management (hardwoods and red pine) will continue with the current sustainable level of management, promoting an array of both age class and structural diversity in the cover types. Any timber management adjacent to the Two Hearted River will follow the quidelines set forth in the Two Hearted River natural River Plan.

#### Soil and topography:

The dominant soil type of the compartment is Rubicon sand. The main cover type found on this soil is jack pine, with some areas of red pine and/or white pine. Lesser components of Wallace sand are found in the western portion of the compartment, supporting a cover type of northern hardwoods. Carbondale, Lupton and Tawas muck soils are found within the Two Hearted River corridor. The overall topography of the compartment is level to slightly rolling, with a slight increase in topographical change adjacent to the Two Hearted River.

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

The majority of the compartment is comprised of State land. There are 2 large blocks of private property within the compartment, each of which is subdivided into smaller individual parcels. State land borders the compartment to the south, and east, while a mixture of State land and private land borders to the north and west. Development in and around the compartment is low to moderate due to the large amount of State land in the vicinity. Several small camps are located within and around the compartment boundary. The main types of land use in the area are camping (Reed and Green SF Campground) hunting, fishing, canoeing, ORV and snowmobile riding, and berry picking.

#### **Unique Natural Features:**

NFI lists occurrences of American shore-grass and Moor rush within the compartment. There is the potential for numerous unique plants such as false violet, pine drops, climbing fumitory and Canada rice-grass in the pines, black crow berry, sweet coltsfoot, moor rush, round-leaved orchid and English sundew. Kirtland's warbler, prairie warbler, moose, wolves, eagle, osprey, goshawk and red-shouldered hawk are potential wildlife in the area.

#### Archeological, Historical, and Cultural Features:

None Listed.

### **Special Management Designations or Considerations:**

The Two-Hearted River has been designated as a Natural River, and thus has special management guidelines to follow. The Two Hearted River Natural River Plan is in place and management guidelines have been established for timber management within this zone. Management decisions shall be dictated by the promotion and enhancement of the desired characteristics associated with the natural river zone. Any prescribed treatments that take place near the Two Hearted River will also incorporate BMP guidelines.

#### **Watershed and Fisheries Considerations:**

Fisheries Values: Excellent

Fisheries Concerns: The Two Hearted River borders this compartment. The Two Hearted River, designated as a Natural River, experiences runs of steelhead and Chinook and Coho salmon and contains a resident native Brook Trout population. The Two Hearted River is one of the most popular fisheries in the Eastern Lake Superior watershed. All Natural River Plan best management practices should apply to any treatments considered along the river corridor. The

East Branch Two Hearted River also borders this compartment. The East Branch is a designated trout stream and is assigned a high priority trout stream buffer of 300 feet.

#### Wildlife Habitat Considerations:

Compartment 30 lies in the far northern portion of Luce county and is in the Grand Marais Sandy End Moraine and Outwash ecological sub-subsection. The compartment is part of the Deer Park Management Area and has Kirtland's warbler, piping plover, American marten and red crossbill as featured species with important management concerns. The vegetation is primarily jack pine with a small component of white pine, hardwood and red pine stands scattered throughout the compartment. Diversity of tree species in jack pine stands is relatively low but the remainder of the compartment has fair to good species diversity. Overall, pre-settlement vegetation patterns appear to have been similar to the current landscape of this compartment.

In a predominantly pine forested ecosystem, maintaining a variety of age and size classes and maintaining as much structural diversity as possible in managed stands will be important to achieving wildlife objectives. For example, retaining soft and hard mast producing species where they occur and red and white pine in jack pine final harvests will provide food sources, nest and den trees, and improve stand diversity. Conifer components of hardwood stands are commonly retained during harvest to increase stand diversity and leave trees in final harvests are important as bear refuge trees and as cover for wildlife using the stands. White-tailed deer, black bear, spruce grouse, otter, mink, gray wolves, coyote and fox are noteworthy wildlife species using this compartment.

#### Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of lacustrine sand and gravel. There is insufficient data to determine the glacial drift thickness (>50 feet). The Precambrian Jacobsville Sandstone subcrops below the glacial drift. The Jacobsville was used as a building stone in the past. Sand and gravel pits are not located in the area, but there appears to be some sand potential. There is no economic oil and gas production in the UP and there is no metallic mineral potential in this area.

#### **Vehicle Access:**

The compartment is approximately 25 miles north of Newberry along County Road 410. There is substantial vehicle access to the compartment. County Roads 410 and 414 provide maintained county road access through the compartment. Several forest roads, including High Banks Trail and Harrison Trail, run through the compartment. Several sand two track roads transect the area providing additional access to all parts of the compartment.

#### **Survey Needs:**

For management activities to occur, the following survey needs are required: The ½ corner between sections 11 & 14 need to be reconfirmed (location possibly altered). Confirm the accuracy of the private corner locations for the Center and S1/16 of Section 12. Establish the N1/16 of Section 12. Confirm accuracy of private corner locations for the SW1/16, S1/16 and SE1/16 of Section 14 as well as the S1/16 between Sections 13 and 14.

#### **Recreational Facilities and Opportunities:**

Recreational facilities within the compartment include the Two Heart ORV Trail and the groomed snowmobile trail (Trail #8). There is a canoe livery launch site (Rainbow Lodge) on the western boundary of the compartment. The Reed and Green State Forest Campground is just across the Two Hearted River from the compartment. Other recreational opportunities include hunting, fishing, canoeing, hiking, berry picking and wildlife viewing. There are a few remote "unofficial" camping sites along the Two Hearted River that people use also. A number of hunting camps are located within and around the compartment boundary.

## **Fire Protection:**

This compartment is part of the Two Hearted Zone Dispatch Area. The continuous Pine fuel types and response time could lend to larger fire runs. Private ownership's with structures in this compartment poses wildland urban interface concerns. Generally upland sandy soils will allow normal fire suppression activities.

#### **Additional Compartment Information:**

The following reports from the Inventory are attached:

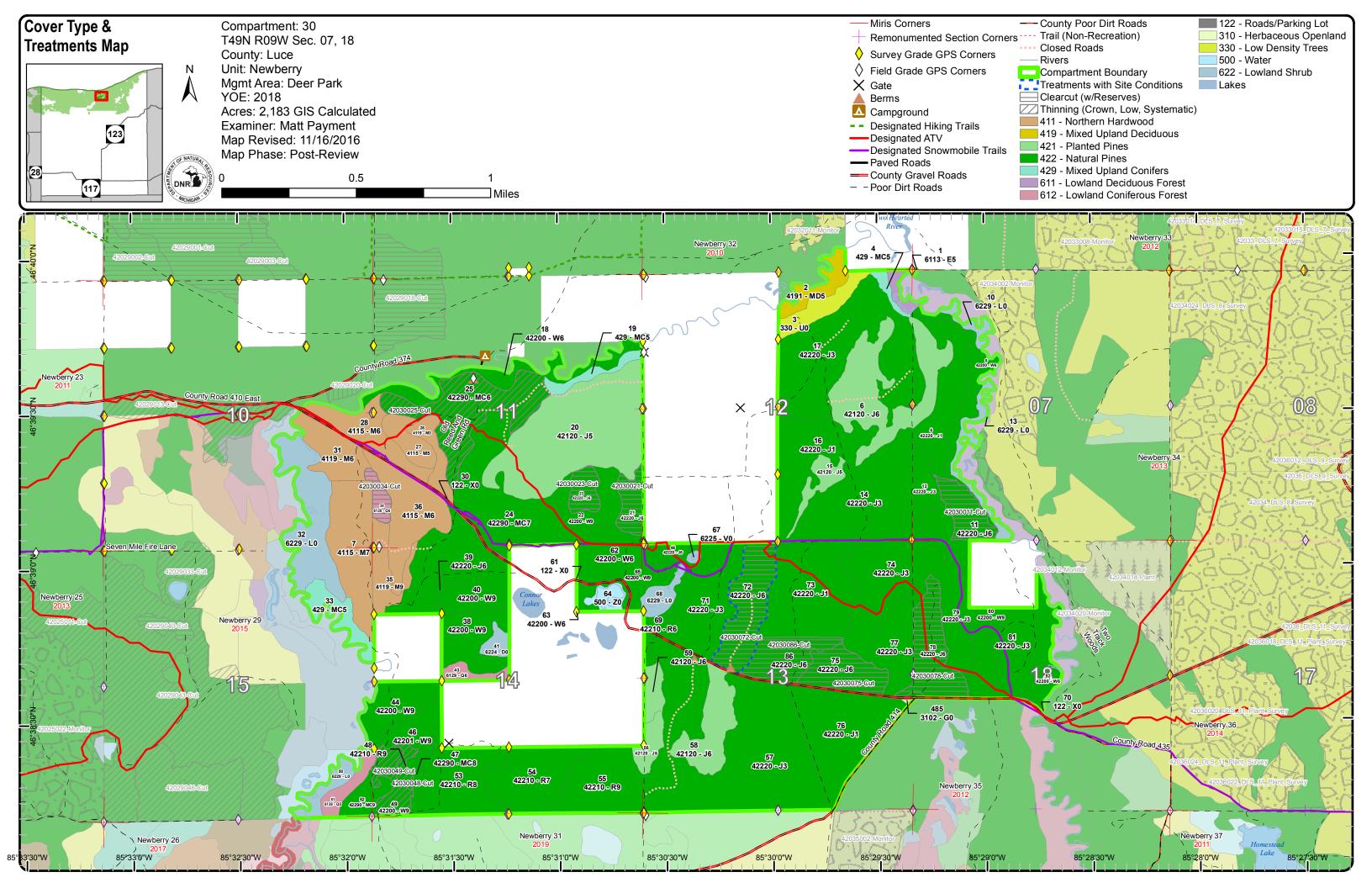
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

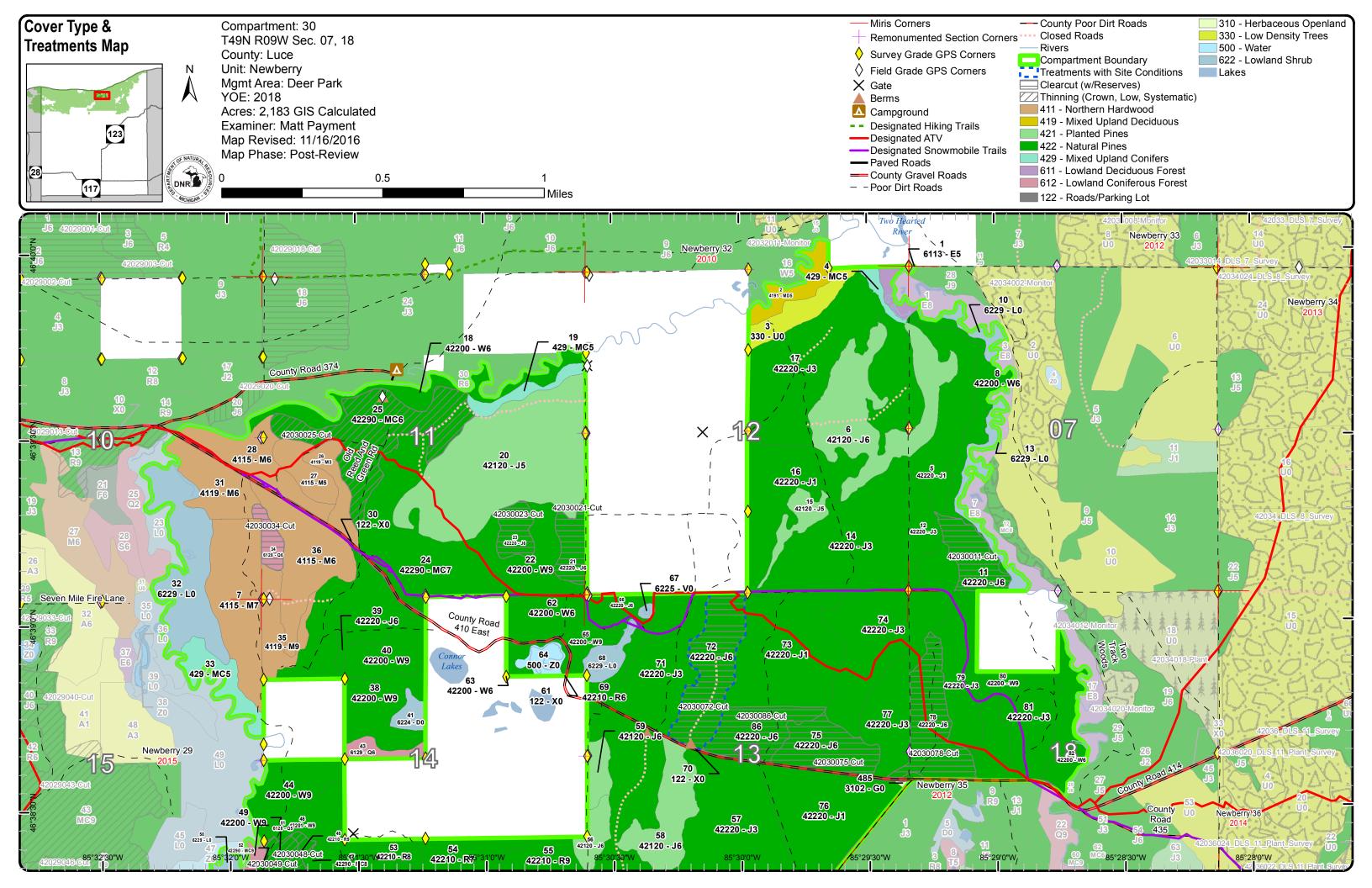
The following information is displayed, where pertinent, on the attached compartment maps:

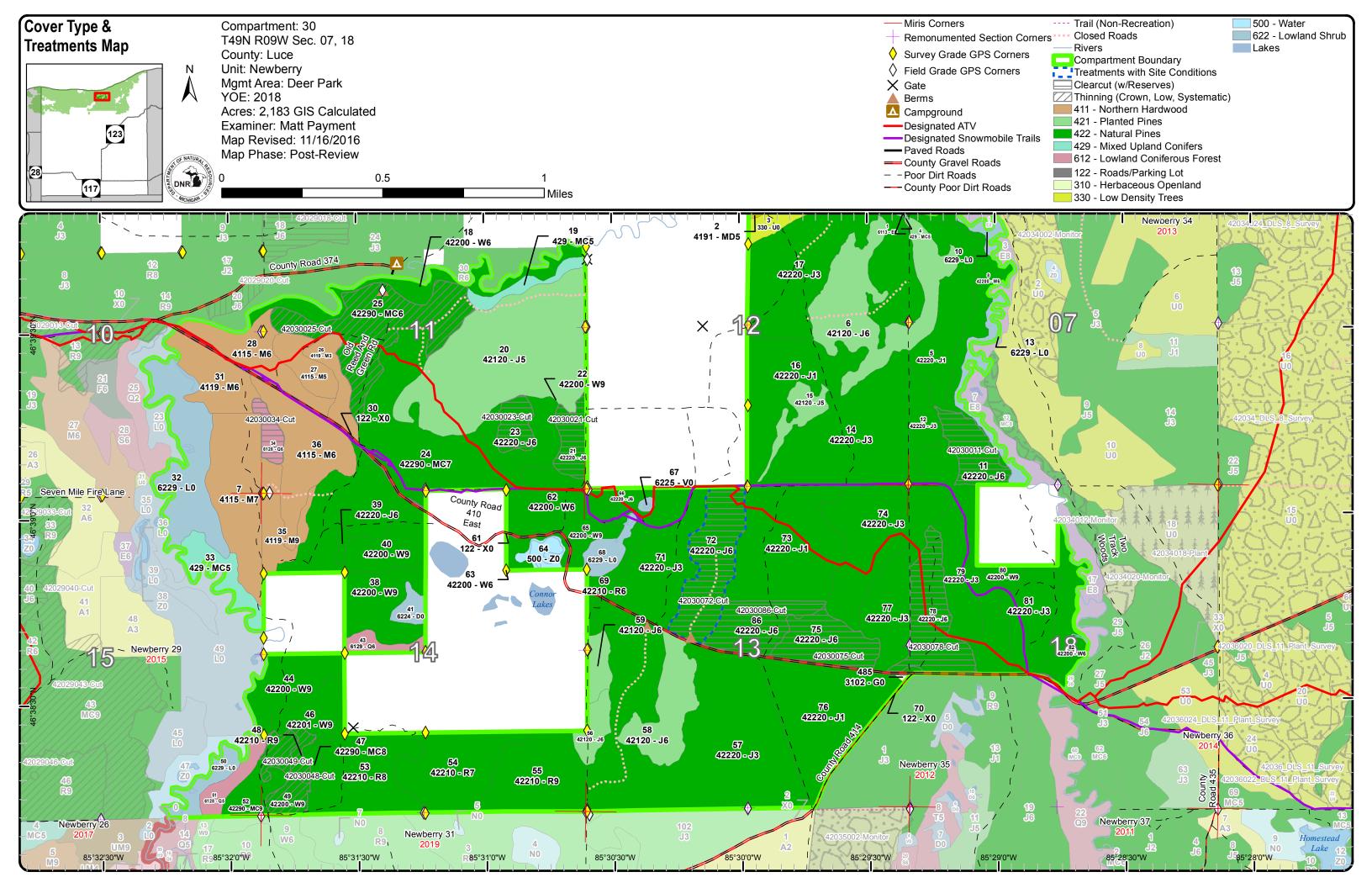
Base feature information, stand boundaries, cover types, and numbers

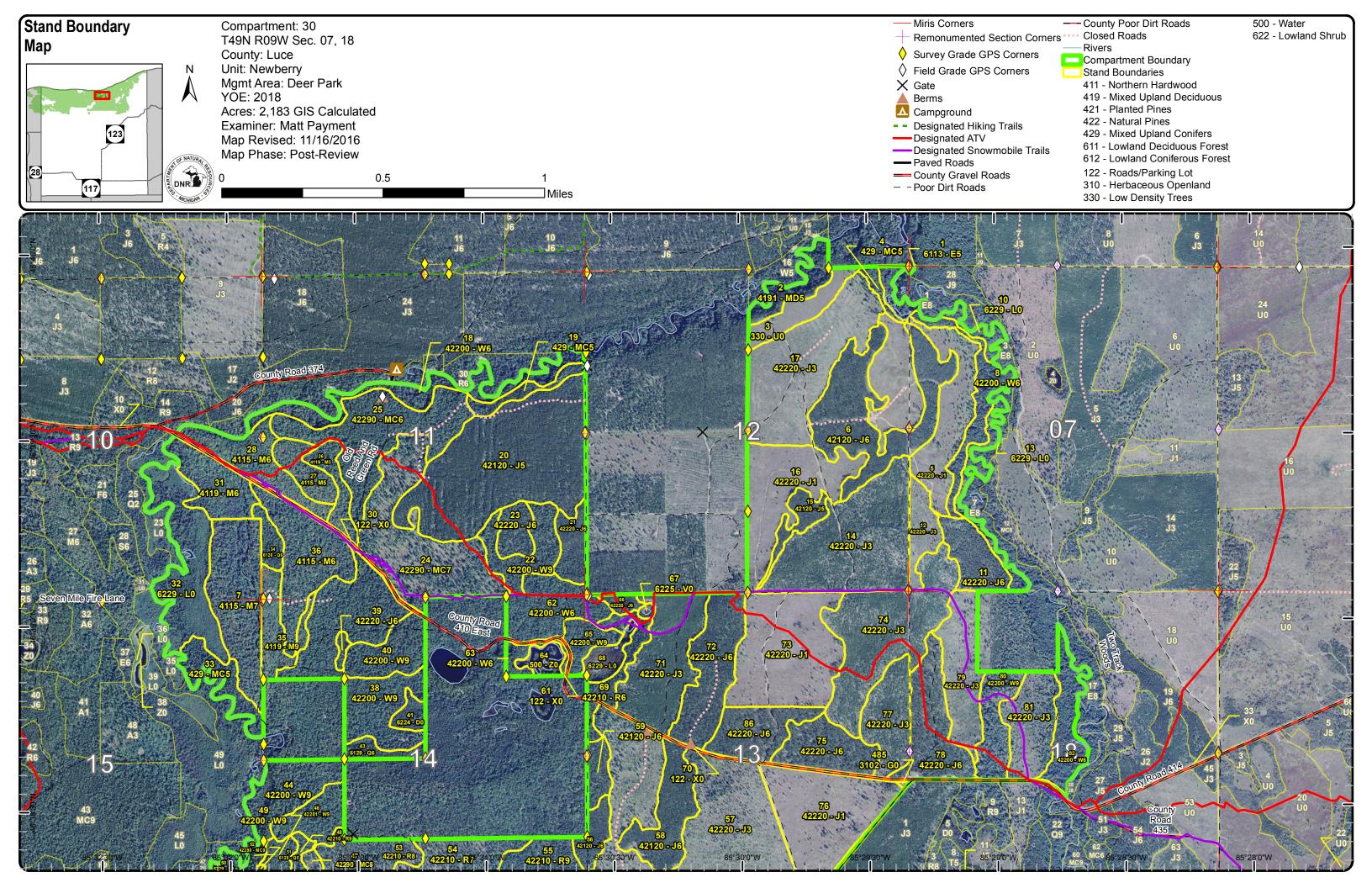
Proposed treatments
Site condition boundaries

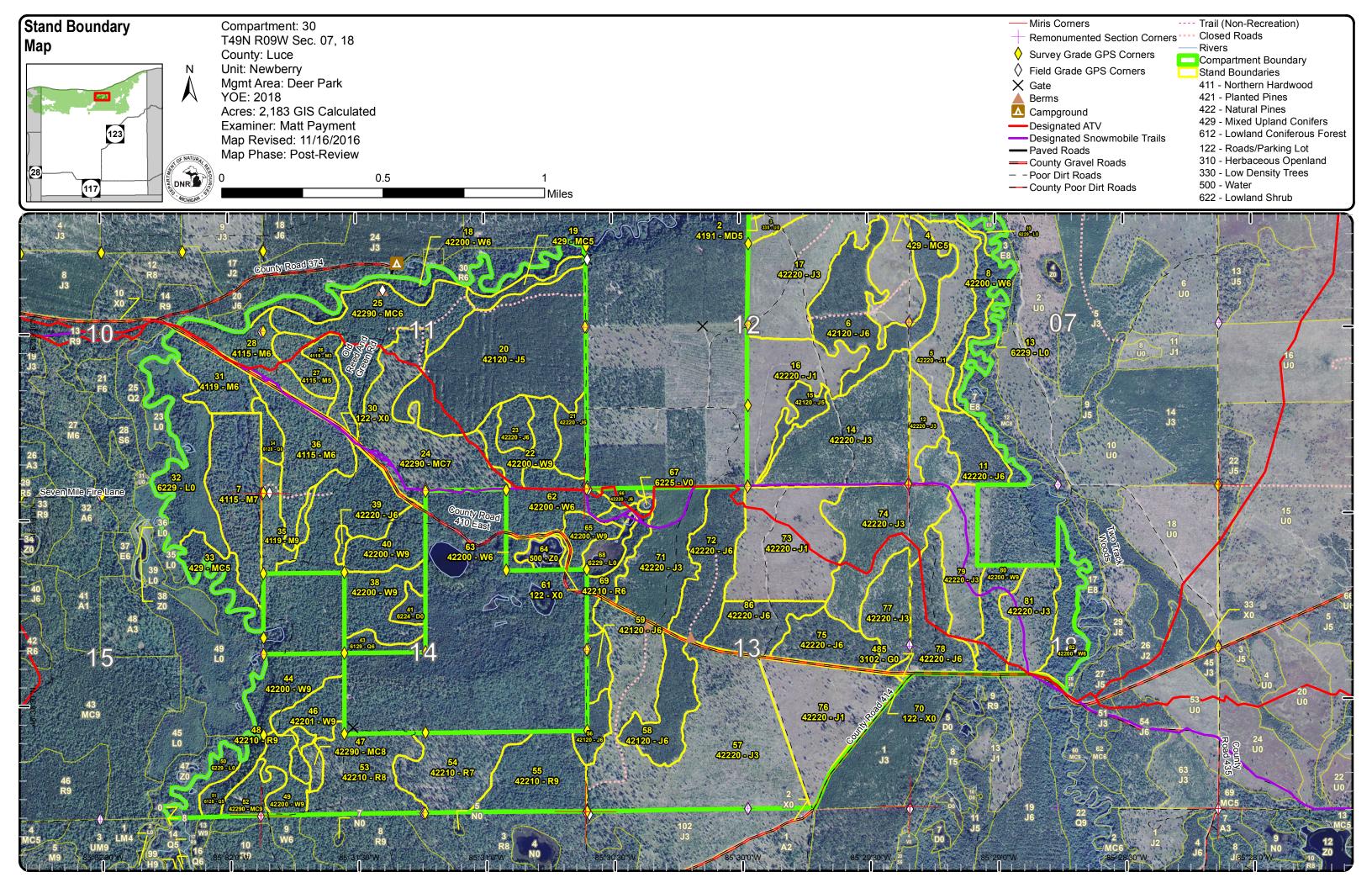
Details on the road access system

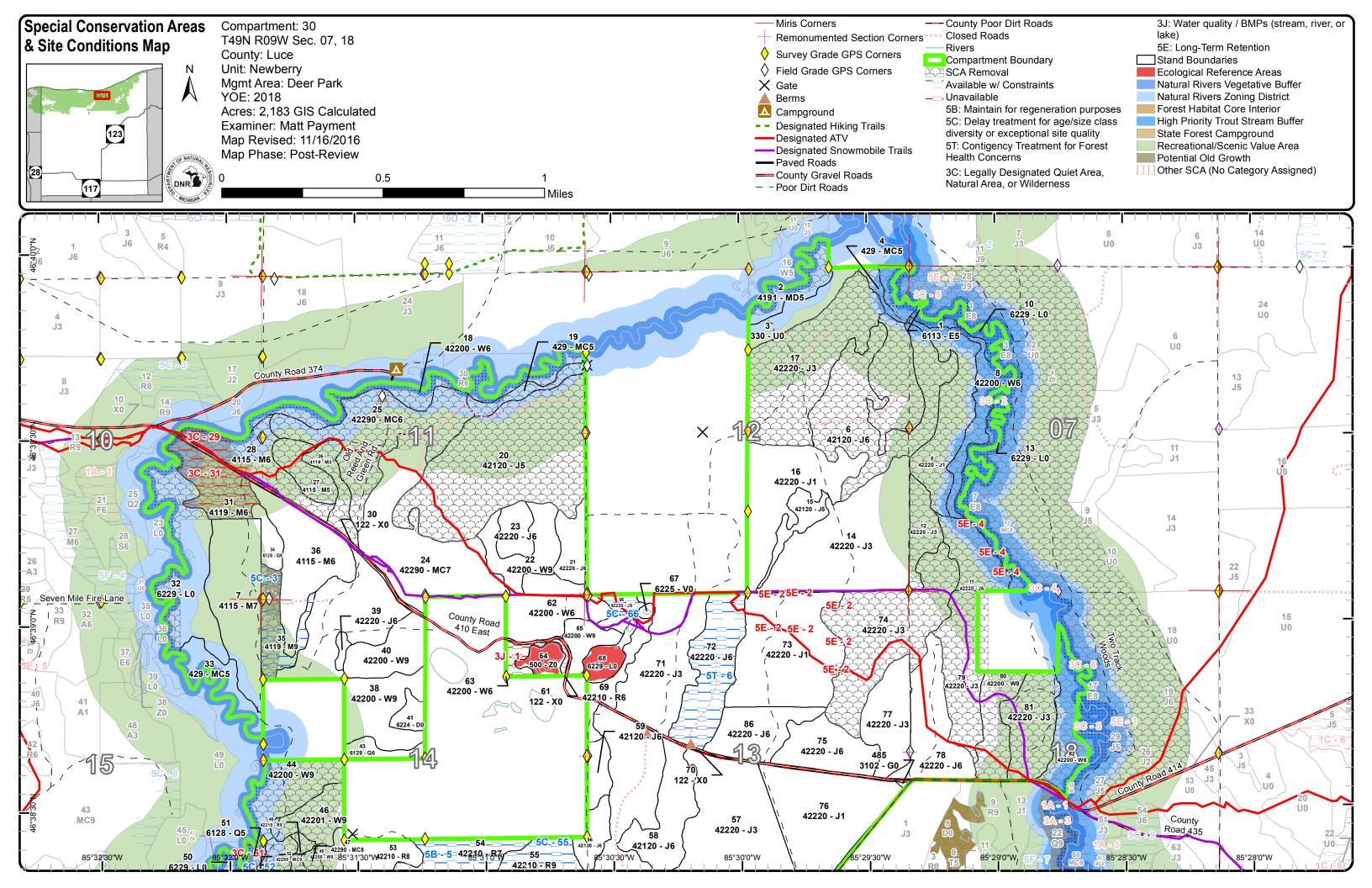


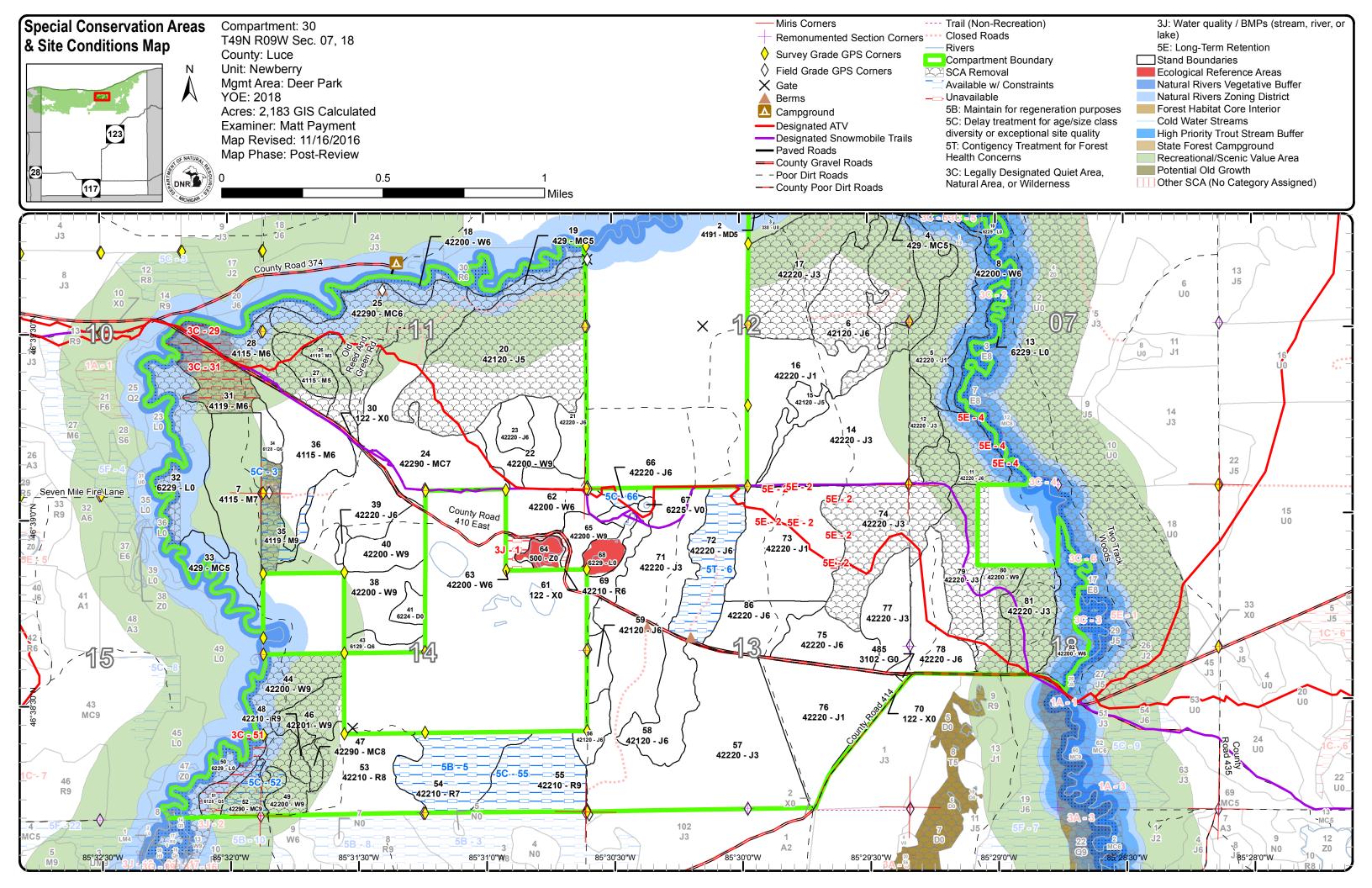












Compartment 30

Year of Entry 2018

Newberry Mgt. Unit
Matt Payment: Examiner



#### Age Class

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Bog	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Herbaceous Openland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jack Pine	0	245	310	221	0	229	9	11	102	61	0	0	0	0	0	0	0	0	1187
Low-Density Trees	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Lowland Conifers	0	0	0	0	0	0	0	7	0	7	11	0	0	0	0	0	0	0	24
Lowland Deciduous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6
Lowland Shrub	89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	89
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	15
Natural Mixed Pines	0	0	0	0	0	0	0	0	0	68	4	0	12	0	0	0	0	59	143
Northern Hardwood	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	171	182
Red Pine	0	0	0	0	0	0	0	0	61	42	0	47	0	0	0	0	0	0	150
Treed Bog	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Upland Conifers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	28
Urban	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Water	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
White Pine	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0	297	312
<b>Total</b>	135	245	310	221	12	229	9	18	163	178	15	62	12	0	0	0	0	576	2182



# **Report 2 – Treatment Summary**

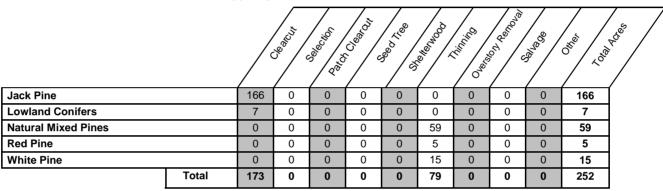
## Newberry Mgt. Unit Year of Entry: 2018

#### **Acres of Harvest**

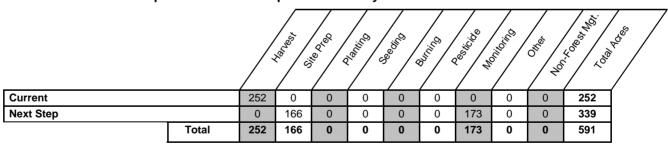
Compartment 30
Total Compartment Acres: 2,183

Commercial Harvest - 212 Harvests with Site Condition - 39 Next Step Harvest - 0 Habitat Cut - 0

## **Cover Type by Harvest Method**



### **Proposed and Next Step Treatments by Method**



Compartment: 30

Year of Entry: 2018

S t a

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
11	42030011-Cut	18.9	42220 - Natural Jack Pine	Poletimber Well	89	111- 140	Harvest	Clearcut with Retention	4222 - Natural Jack Pine	Even-Aged	Draft Field Boundary

Habitat Cut: No Site Condition:

<u>Prescription</u> Remove all Jack pine. Leave all other species present to regenerate for potential KW habitat. Follow Two Hearted Natural River Plan. Buffer Specs: river according to topography.

Scarify stand if possible. Trench and plant if scarification fails. Acreage may change in stand due to topography.

SitePrep, Scarification; Monitoring, Natural Regen (Intermediate)

Next Step Treatments:

Acceptable Jack pine, or minor red and white pine.

Regen:

Other Comment:

\_\_\_\_\_

Proposed Start Date: 10/01/2017

42030021-Cut 12.9 42220 - Natural Poletimber 83 111-Harvest Clearcut with 4222 - Natural Even-Aged Draft Field Jack Pine Jack Pine Well 140 Retention Boundary

Habitat Cut: No Site Condition:

Prescription Clear cut stand removing all species. Scarify stand. If scarification fails, trench and plant to jack pine.

<u>Specs:</u> Leave some large red pine throughout the stand.

Next Step SitePrep, Scarification; Monitoring, Natural Regen (Intermediate)

**Treatments:** 

Acceptable jack pine.

Regen:
Other
Comment:

Proposed Start Date: 10/01/2017

23 42030023-Cut 10.5 42220 - Natural Poletimber 69 141- Harvest Clearcut 4222 - Natural Even-Aged Draft Field Jack Pine Well 170 Jack Pine Boundary

Habitat Cut: No Site Condition:

Prescription Clear cut stand removing all species. Scarify stand. Trench and plant to jack pine if scarification fails.

Specs:

Due to small acreage don't leave retention.

<u>Next Step</u> SitePrep, Scarification; Monitoring, Natural Regen (Intermediate)

Treatments:

Acceptable jack pine with minor component of white or red pine.

Regen:

Other Comment:

Proposed Start Date: 10/01/2017

25 42030025-Cut 58.7 42290 - Natural Poletimber 94 141- Harvest Crown Thinning 429 - Mixed Two-Aged Draft Field Mixed Pine Well 170 Upland Conifers Boundary

Habitat Cut: No Site Condition:

<u>Prescription</u> Thin stand to 100BA. Focus mainly on larger diameter trees. Follow Two Hearted Natural River Plan. Leave all oak for mast production for <u>Specs</u>: wildlife species and retain some large diameter trees for bear refuge trees. ORV trail runs through stand, follow standard trail protection.

Next Step
Treatments:

Acceptable Mixed conifer species.

Regen:

Other Comment:

Proposed Start Date: 10/01/2017

Treatments:

Regen:

Other

Draft Field 72 42030072-Cut 39.4 42220 - Natural Poletimber 76 4222 - Natural 111-Harvest Clearcut with Even-Aged Jack Pine Well Retention Jack Pine Boundary

**Habitat Cut: No** Site Condition: Contingency Treatment

Prescription Remove all species. Leaving all oak and leaving 1 red or white pine per acre.

Specs:

Scarify stand. Trench and plant if scarification fails.

ORV trail runs through northeastern part of the stand.

SitePrep, Scarification; Monitoring, Natural Regen (Intermediate) Next Step

**Treatments:** 

Acceptable Jack pine with minor red or white pine and oak.

Regen:

Other Comment:

Proposed Start Date: 10/01/2017 Newberry Mgt. Unit

Report 3 -- Treatments

Compartment: 30 Year of Entry: 2018

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
75	42030075-Cut	25.2	42220 - Natural Jack Pine	Poletimber Well	r 76	81-110	Harvest	Clearcut with Retention	4222 - Natural Jack Pine	Even-Aged	Draft Field Boundary

**Habitat Cut: No Site Condition:** 

Prescription Remove all species. Leaving all oak for mast production for wildlife species benefit and leaving 1 red or white pine per acre for Red Crossbill Specs:

food source.

Scarify stand. Trench and plant if scarification fails.

Next Step SitePrep, Scarification; Monitoring, Natural Regen (Intermediate)

Treatments:

Acceptable Jack pine with some minor red or white pine and oak

Regen:

S

Other Comment:

Proposed Start Date: 10/01/2017

78 42030078-Cut 34.2 42220 - Natural Poletimber 111-Harvest Clearcut with 4222 - Natural Even-Aged Draft Field Jack Pine Jack Pine Well 140 Retention Boundary

**Habitat Cut: No Site Condition:** 

Prescription Remove all species. Leaving all oak if present and leaving 1 red or white pine per acre.

Specs:

Scarify stand. Trench and plant if scarification fails.

ORV trail run through stand.

SitePrep, Scarification; Monitoring, Natural Regen (Intermediate) Next Step

Treatments:

Acceptable Jack pine with minor red or white pine and oak.

Regen:

Other Comment:

Proposed Start Date: 10/01/2017

86 42030086-Cut 25.0 42220 - Natural Poletimber 111-Harvest Clearcut with 4222 - Natural Even-Aged Draft Field Jack Pine Well 140 Retention Jack Pine Boundary

**Habitat Cut:** No **Site Condition:** 

Prescription Remove all species. Leaving all oak for mast production for wildlife species benefit if any is present and leave 1 red or white pine per acre for

Red Crossbill food source. Specs:

Scarify stand. Trench and plant if scarification fails.

Next Step SitePrep, Scarification; Monitoring, Natural Regen (Intermediate)

Treatments:

Acceptable jack pine with minor red and white pine or oak.

Regen:

Other Comment:

**Proposed Start Date:** 10/01/2017

**Total Treatment** 251.6 Acreage Proposed:

Compartment: 30

Newberry Mgt. Unit

Matt Payment : Examiner Year of Entry: 2018

Availa	ability for	Managemer	nt								
Total	Acres	Acres Avail	Acres		Domina	nt Site	e Con	dition	S		
Acres	Available	With Condition	Not Available		5B	5C	5F	5T	3C	3J	5E
1	1	0	0	Bog							
0	0	0	0	Herbaceous Openland							
1187	1141	43	3	Jack Pine		4		39			3
15	15	0	0	Low-Density Trees							
24	14	0	10	Lowland Conifers					10		
6	6	0	0	Lowland Deciduous							0
89	89	0	0	Lowland Shrub							
15	0	0	15	Mixed Upland Deciduous						15	
143	131	12	0	Natural Mixed Pines		12					
181	113	36	32	Northern Hardwood		18	18		32		
151	66	85	0	Red Pine	42	42					
6	6	0	0	Treed Bog							
28	4	0	25	Upland Conifers						25	
17	17	0	0	Urban							
7	7	0	0	Water							
312	306	0	6	White Pine						6	
2,183	1,916	176	91	Total Forested Acres	42	76	18	39	43	45	3
	88%	8%	4%	Relative Percent							

\*Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	6	3D: Recreational / Scenic values	Unspecified	Unspecified	Unspecified
	Comments: Unique stand surrou	nding one of the Connor Lake	es. Aestl	netic and scenic values ald	ong county road 410.		
2	Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						

# Report 4 – Site Conditions

Newberry Mgt. Unit

Compartment: 30 Year of Entry: 2018 **Matt Payment: Examiner** 

Available	5C: Delay treatment for age/size class diversity or exceptional site quality	18	Unspecified	Unspecified	Unspecified	Unspecified
		state p	ourchased it. Also the stand fa	alls on a ridge that runs n	orth and south. Falls withi	n Two Hearted River
Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Parts of stand 11 th	at are in the 100' buffer for the	Natura	ll River Plan. Pieces can be	put into long term retentic	on.	
Available	5B: Maintain for regeneration purposes	42	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Retain for regenera	tion coming in under overstory	after th	ne last harvest. Assess next	entry.		
Available	5T: Contigency Treatment for Forest Health Concerns	39	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Hold for 10 years u	nless Jack Pine budworm prese	ents its	elf in the stand.			
Unavailable	3J: Water quality / BMPs (stream, river, or lake)	15	5F: Evaluated for Forest Health Considerations	Unspecified	Unspecified	Unspecified
Comments: Evaluated for SBW						
Unavailable	3J: Water quality / BMPs (stream, river, or lake)	8	5F: Evaluated for Forest Health Considerations	Unspecified	Unspecified	Unspecified
Comments: Evaluated for SBW						
	Comments: Stand to the west we Natural River Zone/ Unavailable Comments: Parts of stand 11 the Available  Comments: Retain for regeneral Available  Comments: Hold for 10 years und Unavailable  Comments: Evaluated for SBW  Unavailable  Comments:	Comments: Stand to the west was harvested heavy before the Natural River Zone/Plan.  Unavailable 5E: Long-Term Retention  Comments: Parts of stand 11 that are in the 100' buffer for the  Available 5B: Maintain for regeneration purposes  Comments: Retain for regeneration coming in under overstory  Available 5T: Contigency Treatment for Forest Health Concerns  Comments: Hold for 10 years unless Jack Pine budworm presentation of the standard process of the stan	age/size class diversity or exceptional site quality  Comments: Stand to the west was harvested heavy before the state patternal River Zone/Plan.  Unavailable 5E: Long-Term Retention 1  Comments: Parts of stand 11 that are in the 100' buffer for the Natural Available 5B: Maintain for regeneration purposes  Comments: Retain for regeneration coming in under overstory after the Available 5T: Contigency Treatment for Forest Health Concerns  Comments: Hold for 10 years unless Jack Pine budworm presents its  Unavailable 3J: Water quality / BMPs (stream, river, or lake)  Comments: Evaluated for SBW.  Unavailable 3J: Water quality / BMPs 8 (stream, river, or lake)  Comments:	age/size class diversity or exceptional site quality  Comments: Stand to the west was harvested heavy before the state purchased it. Also the stand for Natural River Zone/Plan.  Unavailable 5E: Long-Term Retention 1 Unspecified  Comments: Parts of stand 11 that are in the 100' buffer for the Natural River Plan. Pieces can be a variable as a stand 11 that are in the 100' buffer for the Natural River Plan. Pieces can be a variable as a stand 11 that are in the 100' buffer for the Natural River Plan. Pieces can be a variable as a v	Comments: Stand to the west was harvested heavy before the state purchased it. Also the stand falls on a ridge that runs in Natural River Zone/Plan.  Unavailable 5E: Long-Term Retention 1 Unspecified Unspecified  Comments: Parts of stand 11 that are in the 100' buffer for the Natural River Plan. Pieces can be put into long term retented.  Available 5B: Maintain for regeneration purposes  Comments: Retain for regeneration coming in under overstory after the last harvest. Assess next entry.  Available 5T: Contigency Treatment for Forest Health Concerns  Comments: Hold for 10 years unless Jack Pine budworm presents itself in the stand.  Unavailable 3J: Water quality / BMPs (stream, river, or lake)  15 5F: Evaluated for Forest Unspecified  Comments: Evaluated for SBW.  Unavailable 3J: Water quality / BMPs (stream, river, or lake)  8 5F: Evaluated for Forest Health Considerations  Unspecified  Unspecified	age/size class diversity or exceptional site quality  Comments: Stand to the west was harvested heavy before the state purchased it. Also the stand falls on a ridge that runs north and south. Falls within Natural River Zone/Plan.  Unavailable 5E: Long-Term Retention 1 Unspecified Unspecified Unspecified  Comments: Parts of stand 11 that are in the 100' buffer for the Natural River Plan. Pieces can be put into long term retention.  Available 5B: Maintain for regeneration purposes  Comments: Retain for regeneration coming in under overstory after the last harvest. Assess next entry.  Available 5T: Contigency Treatment for Forest Health Concerns  Comments: Hold for 10 years unless Jack Pine budworm presents itself in the stand.  Unavailable 3J: Water quality / BMPs (stream, river, or lake)  SF: Evaluated for Forest Health Considerations  Comments: Evaluated for SBW.  Unavailable 3J: Water quality / BMPs (stream, river, or lake)  8 5F: Evaluated for Forest Health Considerations  Unspecified

# **Report 4 – Site Conditions**

Newberry Mgt. Unit
Matt Payment: Examiner

Compartment: 30 Year of Entry: 2018

9	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	17	5F: Evaluated for Forest Health Considerations	Unspecified	Unspecified	Unspecified
	Comments: Evaluated for SBW.						
10	Available	5F: Evaluated for Forest Health Considerations	18	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Evaluated for SBW.						
29	Unavailable	3C: Legally Designated Quiet Area, Natural Area, or Wilderness	9	3D: Recreational / Scenic values	3G: Other Influence zones - See comments	5F: Evaluated for Forest Health Considerations	Unspecified
	Comments: Evaluated for SBW.						
31	Unavailable	3C: Legally Designated Quiet Area, Natural Area, or Wilderness	24	3D: Recreational / Scenic values	3G: Other Influence zones - See comments	Unspecified	Unspecified
	Comments:						
51	Unavailable	3C: Legally Designated Quiet Area, Natural Area, or Wilderness	11	2G: Too wet (sensitive soils, does not include access issues)	2F: Too steep	Unspecified	Unspecified
	Comments:						
52	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	12	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Hold for 10 years du	ue to adjacent stand being harv	ested.				

# **Report 4 – Site Conditions**

Compartment: 30

Newberry Mgt. Unit

Matt Payment : Examiner Year of Entry: 2018

55	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	42	Unspecified	Unspecified	Unspecified	Unspecified
Co	omments:						
66	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	4	Unspecified	Unspecified	Unspecified	Unspecified
Co	omments:						

Compartment: 030 Year of Entry: 2018



## 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
	Potential Old Growth		SCA Removal	4
<b>Comments</b> Already a HCVA - Nat	tural River.			
	Potential Old Growth		SCA Removal	4
<b>Comments</b> Already a HCVA - Nat	tural River			
	Other SCA		SCA Removal	13
<b>Comments</b> Already a SCA - Two-	Hearted buffer.			
	Other SCA		SCA Removal	32
<b>Comments</b> Already a SCA - Two-	Hearted buffer.			
	Other SCA		SCA Removal	89
<b>Comments</b> Already a HCVA - Nat	tural River.			
	Other SCA		SCA Removal	242
<b>Comments</b> Already a SCA - Two-	Hearted buffer.			
	Other SCA		SCA Removal	426
<b>Comments</b> Already a SCA - Two-	Hearted buffer.			
Unspecified	Potential Old Growth		SCA Removal	9
	River Natural River Zone. "overmature" ha aries from an M6 to an M9. Well establishe			e, and
 Unspecified	Other SCA		SCA Removal	10
Comments HCVA + Two Hearted Hearted Natural River	River Natural River Zone. Lowland brush Zone	with scattered trees along the	Γwo Hearted River. Within the <sup>-</sup>	Гwо
Unspecified	Potential Old Growth		SCA Removal	24
	River Natural River Zone. "overmature" ha aries from an M6 to an M9. Well establishe			e, and

Newberry Mgt. Unit Compartment: 30
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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.

Conservation	on Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen cond stocked trout populations and those of other coldwater fish speci year to year. Coldwater streams in Michigan typically provide the contributions of groundwater to their stream flows. Such streams designated as trout resources by Fisheries Order 210.	es (e.g., slimy sculpin) to persist from se conditions due to substantial
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in influences the aquatic ecosystem and vice-versa. Because of the streams and open water wetlands, riparian areas harbor a high of communities are ecologically and socially significant in their effect as aesthetics, habitat, bank stability, timber production, and their	e unique conditions adjacent to lakes, liversity of plants and wildlife. Riparian cts on water quality and quantity, as well
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from sp approved distance from the river centerlines. The Natural Rivers most Natural Rivers. The Vegetative Buffer ranges from 25 to 10 and Vegetative Buffers for each Natural River see the table locat folder.	S Zoning District is a 400 foot buffer for 00 feet. To view specific Zoning Districts
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of identified as Element Occurrences (EOs) by the Michigan Natura context of their natural community classification system. Element (Excellent) or B (Good) and a Global (G) or State (S) element (ra threatened (2), or rare (3) serve as an initial base of ERAs. They the State. The system is comprised of individual or associations managed for restoration and maintenance of natural ecological p submit recommendations for lands as ERAs using the DNR Constitutions.	al Features Inventory (MNFI) within the toccurrences with viability ranks of A urity) ranking of endangered (1), may be located upon any ownership in of natural community types that are processes and values. The public may

S t	Newberry	/ Mgt. Unit		Report 7	– Forested	Stands Compartment: 30 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6113 - Lowland Maple	Poletimber Medium	6.1	80	51-80	Two Hearted River - Natural River Zone. Multiple stem, clumps of red maple with thick balsam fir. Heavy tag alder in places. Low quality. Borders the East Branch of the Two Hearted River.
2	4191 - Mixed Upland Deciduous with Conifer	Poletimber Medium	14.8	85	51-80	Two Hearted River Zone - Two Hearted Natural River Plan. Stand is on the steep slope dropping down to the flat before the river. Stand is within floodplain of the river. Mainly balsam, red maple, and some larger scattered white pine.
4	429 - Mixed Upland Conifers	Poletimber Medium	3.6	53	51-80	Two Hearted River - Natural River Zone. Transition zone dropping off down into the two hearted river floodplain. Mainly balsam fir with red maple clumps and some scattered larger white pine throughout the stand.
5	42220 - Natural Jack Pine	Sapling Poor	65.9	4	Immature	Two Hearted River Natural River Zone - norther portion of the stand. Access to the area is recommended via old abandoned road from the west through stands 6 and 17. North/south fire lane is too steep and sandy. Management objective is jack pine. Follow guidelines for Two Hearted River Plan when harvested.
						Scarified September 2009. Regen check in 2013.
						Stand harvested via final harvest as sale #013-08-01, Merging Rivers Jack Pine. Completed 10/07/10.
						Regen 2013: Jack pine 1233 TPA.
6	42120 - Planted Jack Pine	Poletimber Well	63.8	47	111-140	Two Hearted River Natural River Plan - Planted in 1970. Nice healthy jack pine, east - west rows. High BA, some smaller sub merchantable jack pine throughout still. No signs of budworm yet.
7	4115 - Y.Birch, Hemlock NH	Sawtimber Poor	47.5	81	81-110	Stand was recently acquired by the state. Stand was harvested heavily around 2014. Heavy harvesting in this stand lead to more open canopy and an abundant amount of raspberry and other plants to flush in the understory slowing the growth of hardwood regeneration. Access into the stand is from the north. Stand falls in the Two Hearted River Natural River Zone. Follow management of the plan in this stand in the future.
8	42200 - Natural White Pine	Poletimber Well	20.1	95	111-140	Two Hearted River - Natural River Zone. Transition zone into the river. Mainly white pine with some red pine and jack pine. Lower ground. Borders the East Branch of the Two Hearted River. Open areas with white pine, jack pine and a few white spruce. Two Hearted Natural River Plan.
11	42220 - Natural Jack Pine	Poletimber Well	19.7	89	111-140	Two Hearted River Natural River Zone - east portion of the stand. Slightly larger diameters in the southern portion of the stand. Scattered red pine and white pine. Budworm damage is present. Stand falls within the Two Hearted Natural River zone. Follow the plan guidelines with any management activities.

S t	Newberr	y Mgt. Unit		Report 7	<ul><li>Forested</li></ul>	Stands Compartment: 30 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
12	42220 - Natural Jack Pine	Sapling Well	14.0	15	1-50	Two Hearted River Natural River Zone. Stand mainly jack pine few scattered large red and white pine. Jack pine appears health.
						Stand was harvested as sale #003-99-01 "East Branch Pine". Cutting completed 7/11/01. FTP #42-494 for scarification of the site completed 10/2001.
14	Pine					Jack pine regeneration is now 15-25 ft tall. Some open areas.  Nice regeneration. Small openings.  Old skid roads seeded in well. 2016
						Stand was harvested in 1989-1990. Sale #005-88-01. Scarified on FTP #42-253, completed 11/1990.
15	42120 - Planted Jack Pine	Poletimber Medium	10.0	47	81-110	Planted in 1970. High BA, some patchy sub merchantable places in the stand. East-west rows. Nice, healthy jack pine.
16	42220 - Natural Jack Pine	Sapling Poor	48.7	7	Immature	Private corners along west side of the stand need to be confirmed by DNR surveyors.  Regen check 2016 -
						Stand harvested via final harvest as sale #013-08-01, Merging Rivers Jack Pine. Completed 10/07/10.
17	42220 - Natural Jack Pine	Sapling Well	71.5	14	Immature	Two Hearted River Natural River Zone -
						Stand harvested as sale #013-98-01. Cutting completed 8/17/01. FTP #42-434 (site scarification) completed 8/15/2002. Substantial red headed pine sawfly damage within the stand-summer 2006. Widespread throughout the area. Very heavy in this stand. Rubicon sand. ***Notes from pest scouts 2006 - sawfly damage on 75% of trees, actually killing the trees (1-2 ft tall).
18	42200 - Natural White Pine	Poletimber Well	28.6	97	81-110	Two Hearted River Natural River Zone. White pine stand providing the corridor for the Two Hearted River. Stand comprises the slope and the low ground along the river. Mainly white pine and some associated species with a lowland understory. Components of white birch, oak, spruce and balsam. Stand lies within the Two Hearted Natural River Zone.
19	429 - Mixed Upland Conifers	Poletimber Medium	7.8	56	51-80	Two Hearted River - Natural River Zone. Mainly balsam, spruce mix with red maple clumps and larger scattered white pine throughout the stand. Stand transitions down into the floodplain of the Two Hearted river.
20	42120 - Planted Jack Pine	Poletimber Medium	114.8	47	81-110	Two Hearted River Natural River Zone - northern portion of the stand. Stand was strip cut somewhere in the early 1960's. The 1964 photos show very recent north/south cut strips. Stand was cut again in 1970. The remaining strips were harvested. Many trees just below merchantable dbh. Semi open areas throughout the stand in a north south "row" appearance. Planted in 1970. Scattered young white pine.

S t	Newberry	/ Mgt. Unit		Report 7	– Forested	Stands Compartment: 30 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
21	42220 - Natural Jack Pine	Poletimber Well	12.9	83	111-140	Nice tall jack pine. Some blow down and mortality within the eastern portion of the stand. No budworm damage. Healthy full crowns. Scattered red pine and white pine. Lots of white pine in the understory. Private land adjacent to the east.
22	42200 - Natural White Pine	Sawtimber Well	21.7	102	141-170	Large diameter white pine with red pine. Good jack pine component in spots. Open understory, much more open appearance than the adjacent jack pine stands. Pockets of W6. Lots of 18-36 inch white pine. Hold for 10 years then shelterwood stand.
23	42220 - Natural Jack Pine	Poletimber Well	10.5	69	141-170	Jack pine with areas of high white pine component. Jack pine is mature. Most of white pine is limby, pulp quality. Light mortality, some evidence of recent budworm damage. Pockets of higher mortality. Pockets of thicker white pine.
24	42290 - Natural Mixed Pine	Sawtimber Poor	68.4	89	1-50	Stand was shelterwood cut and had all the jack pine removed. White and red pine were left with a mix of other minor species. Stand has some regeneration coming in moderately. Hold for 10 years and remove overstory from the stand to release the regeneration. 2016
						Very north end (north 1/3) of the stand falls within the Two Hearted River Natural River Zone (440 ft to 1/4 mile zone). Manage this portion of the stand according to the guidelines in the plan. Old notes (1994?) state that the stand was cut over in the early 1960's. ***Stand harvested as "Connor Lakes Jack Pine", sale #028-08-01. Complete 5/4/09. Scarification completed August 2009. Regeneration check needed in 2013.
						Regen 2013: White pine 107 TPA and red pine 214 TPA.
25	42290 - Natural Mixed Pine	Poletimber Well	58.7	94	141-170	Two Hearted River Natural River Zone. White pine stand with red pine and jack pine. Also components of white birch, oak, spruce and balsam. Portions of the stand are a mixed stand of red pine, white pine and jack pine. Pockets of W9. Understory is a mix of WP, RP, balsam, spruce, W birch and some red maple. High basal area with variable size classes.
26	4119 - Mixed Northern Hardwoods	Sapling Well	11.7	38	51-80	Two Hearted River Natural River Zone - northern portion of the stand. M3 - mix of white birch, red maple, white pine, balsam, sugar maple. Scattered residual overstory of red maple, white pine, oak, and a few hemlock. More white birch near Co Rd 410. Stand has small immature sapling poles of varying species coming in. Larger overstory species were left from the last harvest. Very mixed stand.
27	4115 - Y.Birch, Hemlock NH	Poletimber Medium	13.5	64	51-80	Two Hearted River Natural River Zone. Stand is smaller diameter mixed hardwoods with some larger white pine in the overstory. Moving from a M5 -M6 stand. Slightly more conifer than stand 28 to the south.
28	4115 - Y.Birch, Hemlock NH	Poletimber Well	26.5	71	81-110	Two Hearted River Natural River Zone. Northern hardwoods with advanced understory. Pockets of hemlock. Areas with large diameter yellow birch and red maple. Low quality overstory with thick understory. Manage for the understory, better quality than the overstory. Check in 10-20 years. North end of the stand is within the Two Hearted Natural River Zone.

S t	Newberry	Newberry Mgt. Unit			– Forested	Stands Compartment: 30 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
31	4119 - Mixed Northern Hardwoods	Poletimber Well	23.9	91	111-140	Two Hearted River Natural River Zone. "overmature" hardwoods stand. Lots of large diameter hard maple, red maple, and yellow birch. Stand varies from an M6 to an M9. Lots of "old growth" characteristics (large dbh, old stumps, big wolfy tops, large rotting logs, etc). Large old rotten white pine and hemlock stumps and logs. The majority of the stand falls within the Two Hearted Natural River Zone. No reason to manage due to the unique characteristics and the proximity to the natural river corridor.
33	429 - Mixed Upland Conifers	Poletimber Medium	16.9	59	81-110	Stand came under state ownership in 2015. Drops off into the Two Hearted River, part of the Two Hearted River Zone and Plan. Some dead and dying trees throughout the stand. Balsam, white and red pine, with some spruce and occasional paper birch throughout the stand. Access from the north through the hardwoods. Blocked by private to the east.
34	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	6.9	87	51-80	Low wet area with red maple white pine with lowland species of cedar, yellow birch, black spruce, and some hemlock. Could be accessed through stand to west. Winter cut or extremely dry summer. Stand just falls outside the Two Hearted Natural River Plan Zone.
35	4119 - Mixed Northern Hardwoods	Sawtimber Well	17.8	103	111-140	Southern 2/3 of the stand fall within the Two Hearted River Natural River Zone. "overmature" hardwoods stand. Lots of large diameter hard maple, red maple, and yellow birch. Stand varies from an M6 to an M9. Well established 35 ft tall understory of mainly maple. Lots of "old growth" characteristics (large dbh, old stumps, big wolfy tops, large rotting logs, etc). Large old rotten white pine and hemlock stumps and logs. Beech is dying some regeneration thick in patches. Unique stand. Unique characteristics and the proximity to the natural river corridor. Eastern portion or finger of the stand is slightly smaller diameter but falls out of River Zone. Stand should be held until stand 36 is entered again. Stand to the west was cut rather hard by previous land owner so holding this stand would be beneficial for the future.
36	4115 - Y.Birch, Hemlock NH	Poletimber Well	40.3	79	51-80	Upland hardwoods stand. Lots of variability in the size classes throughout the stand. Some larger mature trees were left after last harvest. Regeneration is coming in thick throughout the stand. Pockets of M6 pole size timber and also areas of large diameter, over mature maple and yellow birch. Clumps of hemlock. Management objective of northern hardwoods.  Stand thinned as sale #026-08-01, "High Banks Hardwoods". Completed 12/28/11.
38	42200 - Natural White Pine	Sawtimber Well	74.3	81	111-140	Multiple aged white pine stand. Pockets of W9. Most of the white pine is limby. Understory of F2 (spruce and balsam). Variability in the BA throughout the stand. Scattered large diameter white pine (>24 inches) throughout the stand. Some white pine with dead tops. West portion has more aspen and oak mixed in. Lots of structural diversity within the stand. Rubicon sand.
39	42220 - Natural Jack Pine	Poletimber Well	2.1	76	81-110	Small pocket of jack pine surrounded by white pine stand. Small diameters, healthy. F3/W2 understory 15-20 ft tall. Edge tree are more limby than trees interior. Transitions to a W6-W9 with a jack pine component along all sides. Possibly hold until surrounding stand 38 is managed.

S t	Newberry	Mgt. Unit		Report 7	– Forested	Stands Compartment: 30 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
40	42200 - Natural White Pine	Sawtimber Well	21.2	116	111-140	Beautiful, tall white pine with red pine. Large diameters. Very tall, very large diameters. Stand was thinned in the past (old stumps). Open canopy. High BA is due to large diameters. 18-24" trees. Some dieback in a few of the white pine.
43	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	7.0	65	111-140	Small diameter cedar and black spruce with slightly larger white pine. White birch, red maple and hemlock along stand edges.  Bordered by private to the east and south.
44	42200 - Natural White Pine	Sawtimber Well	26.6	99	111-140	Two Hearted River Natural River Zone. Large diameter white pine with red pine. Component of white birch, red maple and oak. Understory of spruce, red maple and balsam. Multiple age stand. Within the Two Hearted Natural River zone.
46	42201 - Natural White Pine, Mixed Deciduous	Sawtimber Well	16.4	103	111-140	Two Hearted River Natural River Zone. Really mixed stand. Large diameter, tall white pine and a few large red pine. White birch, red maple, oak, beech, spruce and balsam. Lots of mortality in the white birch. Nice oak throughout. Dominant in the stand is the large diameter white pine. Fairly thick, lots of species and structural diversity. Scattered hemlock and some spruce as you transition towards the river.
47	42290 - Natural Mixed Pine	Sawtimber Medium	4.1	91	Unspecified	Two Hearted River Natural River Zone. Stand had all the jack pine removed and larger red and white pine were left. No regeneration of jack pine is coming in per regen check in 2016.  Stand harvested as sale #038-08-01, "Elevated Stand Pine".
						Complete 09/29/11. Regeneration work yet to be done as of 11/28/11. Regeneration check needed in 2015.  Regen 2016: No jack pine found within sample. 1563 TPA of red oak, 333 TPA of white pine, and 368 TPA of red maple. Residual BA of 30. TPA is average of stand 47 and stand 54.
48	42210 - Natural Red Pine	Sawtimber Well	5.0	101	111-140	Two Hearted River Natural River Zone. Red and white pine - averaging 16 inch dbh. Good regeneration of a mix of species (jack pine, red pine, white pine, red maple and spruce). Stand was harvested in the past, prior to 1964 (shows on 64 photos).
						Check stand
49	42200 - Natural White Pine	Sawtimber Well	14.9	104	111-140	Two Hearted River Natural River Zone. Mixed pine stand of mainly white pine and red pine. Many areas are more of a red pine stand (pockets). North part of the stand is within the Two Hearted River Natural River Zone. Paper birch scattered throughout.
51	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Medium	10.5	93	51-80	Two Hearted River Natural River Zone. Lowland conifer stand with white pine, paper birch, white spruce and some balsam fir throughout the stand. Stand transitions into the lowland stand near the river. Follow the Natural River plan.
52	42290 - Natural Mixed Pine	Sawtimber Well	12.3	112	141-170	Two Hearted River Natural River Zone. Mixed stand. Red and white pine stand with a white birch and oak component. Large sand cut or washout in the south end. Hold for 10 years and reassess potential to harvest.

S t	Newberr	y Mgt. Unit		Report 7	<ul><li>Forested</li></ul>	Stands Compartment: 30 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
53	42210 - Natural Red Pine	Sawtimber Medium	46.3	77	51-80	Nice, good quality red pine with a good white pine component.  Healthy red pine. Some mortality in the white pin. Open areas with advanced W2 understory 10-20 ft tall. Scattered red pine regeneration. Lots of oak seedlings 1-4 ft tall. Alternative management objective of red pine mixed with white pine and some oak. Private property to the north.
						Stand harvested as sale #038-08-01, "Elevated Stand Pine". Complete 09/29/11. Stand fully stocked with red pine white pine and oak.
						Regen 2015: Red oak 1109 TPA, white pine 465 TPA, red maple 397 TPA.
54	42210 - Natural Red Pine	Sawtimber Poor	42.4	87	51-80	red pine, white pine and some oak and aspen. Scattered white birch. Understory of M/R/W/O is variable.
						followed by scarification for natural jack pine regeneration. If scarification fails, plant to jack pine. Management objective is jack pine. Cut all trees except for oak and 10 BA of red pine/white pine for residual (diversity). Rubicon sand. Two illegal blinds and illegal ORV trail from private property to the north.
						Stand harvested as sale #038-08-01, "Elevated Stand Pine". Complete 09/29/11.
						Regen 2016: No jack pine regen found within sample. 1563 TPA of red oak, 333 TPA of white pine, and 368 TPA of red maple. Residual BA around 50, pretty variable. TPA is average of stand 47 and stand 54.
55	42210 - Natural Red Pine	Sawtimber Well	42.3	103	111-140	Large diameter red pine stand. Mainly red pine and white pine. Oak throughout. Understory of white pine. Pockets of aspen. Variable heights, variable diameters, multiple ages. Pockets of R6. Pockets of nice oak. Private to the south and the north.
56	42120 - Planted Jack Pine	Poletimber Well	9.8	47	51-80	Transitioning from a J3 to a J6. Planted in 1970. Scattered red and white pine. Borders private property on west side. Jack pine looks health no bug damage noticed.
57	42220 - Natural Jack Pine	Sapling Well	163.9	15	Immature	Jack pine is growing well in the the stand. Mixed with red and white pine with some maple and oak throughout the stand. Jack pine looks healthy. Jack pine 4-8 ft tall, patchy. Red maple stump sprouts 8-12 ft tall. Some red pine residual. NW corner residual oak. 2016
						Stand harvested as sale #008-98-01. Cutting completed 2000. Scarified on FTP #42-433, completed 8/2001. Regen check in May 2005 - 756 trees/acre - mixed regen of jack pine, red pine, white pine, red maple and oak.
58	42120 - Planted Jack Pine	Poletimber Well	29.9	47	51-80	Healthy looking jack pine with some scattered red and white pine. Transitioning to a J6. Planted in 1970.
59	42120 - Planted Jack Pine	Poletimber Well	8.8	55	81-110	Healthy looking jack pine stand that was planted in 1962. Scattered large diameter red pine and white pine throughout.

S t	Newberry	y Mgt. Unit		Report 7	<ul><li>Forested</li></ul>	Stands Compartment: 30 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
62	42200 - Natural White Pine	Poletimber Well	29.5	109	111-140	All age white pine stand with red pine and jack pine. Scattered red maple, white birch and oak. Portion of the stand north of snowmobile trail has smaller diameter white pine. Hold for 10 years then thin stand.
63	42200 - Natural White Pine	Poletimber Well	5.6	111	111-140	Stand is mainly white pine with some red and jack pine mixed in. Stand surrounds a unique water feature in the area which is seasonally dependent on rain and snowfall but offers a place which holds amphibians, waterfowl, and provides uses for other wildlife. Stand should be retained for uniqueness and location next to County road 410 for aesthetics.
65	42200 - Natural White Pine	Sawtimber Well	10.3	116	141-170	Large diameter white pine and red pine over smaller red maple, balsam, spruce and mixed jack, red, and white pine. Subcanopy consists of spruce, balsam, red maple, and white pine.
66	42220 - Natural Jack Pine	Poletimber Well	3.7	88	81-110	Mature jack pine, fairly healthy. No budworm problems. White pine and red pine throughout. Scattered merchantable red maple. Small acres prescribe 10 yearsr when surrounding stands are put up or if bug out break occurs. ORV trail runs through the stand. Buffer stand 67 accordingly.
69	42210 - Natural Red Pine	Poletimber Well	14.9	75	111-140	Mixed pine stand. Jack pine within the stand are healthy. Red pine and white pine are pole/logs but larger diameter in the southern part of the stand. Multiple ages throughout the stand. Treat the stand in 10-20 years, manage for red pine.
71	42220 - Natural Jack Pine	Sapling Well	48.0	25	Immature	Stand was cut as sale #018-88-01. Sale completed 9/12/1991. Scarified on FTP, completed 05/1992. Jack pine is very thick and looks healthy. A few scattered red and white pine. 2016
72	42220 - Natural Jack Pine	Poletimber Well	39.4	76	111-140	Jack pine stand looks healthy. Has a component of red and white pine within. Was held for 10 years and is ready to be harvested now that surrounding areas jack pine stands have regenerated well. Harvest with stands 86 and 75.
73	42220 - Natural Jack Pine	Sapling Poor	68.6	6	Immature	Management objective of jack pine. Left red pine as residual when harvested, very scattered. Some long term retention pockets in the stand. Regeneration looks good. Few places where it is lacking but over time it should fill in.
						Stand harvested as sale #012-08-01, "414/410 Jack Pine". Completed 07/22/11. FTP #42-712 completed 8/15/2011.
						Regen 2015: Jack pine 375 TPA, red maple 168 TPA. Surveyed with stand 76.
74	42220 - Natural Jack Pine	Sapling Well	69.8	23	Immature	Two Hearted River Natural River Zone - very northeastern corner of the stand. Stand is in good shape and looks healthy. Some scattered openings throughout the stand which are slowly filling in.
						Stand cut as sale #044-93-01 "September Salvage Sale". Sale completed in 8/1994. Cut as a budworm damage salvage sale. Scarified on FTP #42-235, completed 11/1990.

S t	Newberry	y Mgt. Unit		Report 7	<ul><li>Forested</li></ul>	Stands Compartment: 30 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
75	42220 - Natural Jack Pine	Poletimber Well	25.2	76	81-110	Mature jack pine, averaging 3 sticks with some 4 stick trees. Lower quality than surrounding stands. Stand is more open grown in the western half of the stand. Some budworm damage, but lighter than adjacent stands. Was held for 10 years for visual concerns along the Co Rd 410 and also for diversity in the jack pine within the area. Harvest stand with 86 and 72.
76	42220 - Natural Jack Pine	Sapling Poor	62.0	6	Immature	Jack pine is filling in the stand nicely. Some scattered large red pine throughout the stand. Keep an eye on the stand if jack pine doesn't fill in, the stand will need to be planted in areas with no regeneration.
						Stand harvested as sale #012-08-01, "414/410 Jack Pine". Completed 07/22/11. FTP #42-712 completed 8/15/2011.
						Regen 2015: Jack pine 375 TPA, red maple 168 TPA. Surveyed with stand 73.
77	42220 - Natural Jack Pine	Sapling Well	26.6	25	Immature	Healthy jack pine stand with some red and white pine mixed in. Also some red maple coming in as well. Stand cut as sale #009-88-01. Sale completed 6/23/1989. Site scarified on FTP #42-235. Completed 11/1990.
78	42220 - Natural Jack Pine	Poletimber Well	34.8	75	111-140	Mature jack pine, open grown in areas. Primarily 3-4 stick, limby jack pine. Scattered oak, clumps of red pine in the southern half of the stand. Pockets of mortality. Slight to moderate budworm damage. Stand was held for 10 years for visual concerns along the County Roads due to the amount of harvesting prescribed along with helping to increase the age class diversity of the jack pine resource in the area. Stand should be harvested this entry.
79	42220 - Natural Jack Pine	Sapling Well	33.0	15	Immature	Good regeneration throughout. Scattered residual red maple, white pine and oak. Snowmobile trail and ORV trail run through the stand. Two Hearted River Natural River Zone - very northeastern portion of the stand. Some signs of sawfly damage.
						Stand cut as sale #003-99-01. Sale was completed on 8/17/2001. Stand was scarified on FTP #42-494, completed 10/6/2001. Regen survey in May 2005 - 959 trees/acre.
80	42200 - Natural White Pine	Sawtimber Well	20.0	113	81-110	Two Hearted River Natural River Zone. Stand cut as sale #003- 99-01. Completed 8/17/2001. Large diameter white pine stand with some red pine. Understory of W2 throughout most of the stand with more A3 near Co Rd 414.
81	42220 - Natural Jack Pine	Sapling Well	28.4	15	Immature	Good jack pine regeneration throughout the stand. Scattered large red and white pine throughout the stand. Two Hearted River Natural River Zone. Stand cut as sale #003-99-01. Completed 7/11/01. Stand was scarified on FTP #42-494, completed 10/2001. Regen check in May 2005 - 651 trees/acre.
82	42200 - Natural White Pine	Poletimber Well	22.4	109	111-140	Two Hearted River Natural River Zone. Multiple aged white pine stand. Mainly white pine with red pine, spruce, balsam, and some red maple. Areas are more of a W9 (pockets). More jack pine and red pine along the western edge of the stand with smaller diameter white pine. Lots of wildlife activity and trails through the stand. 2016

S t a n d	Newberry Mgt. Unit			Report 7	– Forested	Year of Entry: 2018	NR PATURAL AREA OURCES
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	MICHIGAN .
86	42220 - Natural Jack Pine	Poletimber Well	25.0	83	111-140	Nice, tall jack pine. Some light budworm damage througher Thick stand, high BA. Slight mortality. This is the souther portion of stand 73 that was held for 10 years for visual concerns along Co Rd 410 and also for diversity purposes in jack pine resource in the area. Harvest with stand 72 and Some scattered oak in the stand.	ern I n the

Compartment: 30 Year of Entry: 2018



Cover Type	Acres	Managed Site	General Comments:
330 - Low-Density Trees	15.2		Two Hearted River - Natural River Zone. Level topography. If scarification fails, plant to jack pine. Follow the guidelines of the Two Hearted Natural River Plan. Use care to avoid exposed steep banks along the river (50 ft minimum buffer?).
			Stand harvested via final harvest as sale #013-08-01, Merging Rivers Jack Pine.  Completed 10/07/10. Stand scarified in 2010 by Holli.
6229 - Mixed lowland shrub	5.8	No	Two Hearted River Natural River Zone. Lowland brush along the East Branch of the Two Hearted River. Two Hearted Natural River Plan.
6229 - Mixed lowland shrub	12.8	No	Two Hearted River Natural River Zone. Lowland brush along the East Branch of the Two Hearted River. Two Hearted Natural River Plan. Some red maple and larger white pine scattered through the stand. Stand has understory of tag alder close to the river.
122 - Road/Parking Lot	6.4	No	County Road 410 and 414 right of ways. Gravel portion and cleared Right-of-way.
6229 - Mixed lowland shrub	50.2	No	Two Hearted River Natural River Zone. Lowland brush with scattered trees along the Two Hearted River. Within the Two Hearted Natural River Zone
6224 - Treed Bog	5.6	No	Low wet boggy area that runs east into private property.
6229 - Mixed lowland shrub	11.3	No	Two Hearted Natural River Zone
122 - Road/Parking Lot	1.6	No	County Road 410 and 414 right of ways. Gravel portion and cleared Right-of-way.
500 - Water	7.0	No	Small pond, Seasonal. One of "Connor Lakes".
6225 - Bog	1.2	No	Floating bog mat with leatherleaf, Labrador tea. Some water in the middle.
6229 - Mixed lowland shrub	9.0	No	Low wet stand with small water holes seasonally.
122 - Road/Parking Lot	8.9	No	County Road 410 and 414 right of ways. Gravel portion and cleared Right-of-way.
3102 - Grass	0.3	No	small grass opening at the intersection of Co Rds 410 and 414.
	330 - Low-Density Trees  6229 - Mixed lowland shrub  122 - Road/Parking Lot  6229 - Mixed lowland shrub  6224 - Treed Bog  6229 - Mixed lowland shrub  122 - Road/Parking Lot  500 - Water  6225 - Bog  6229 - Mixed lowland shrub  122 - Road/Parking Lot	330 - Low-Density Trees 15.2  6229 - Mixed lowland shrub 5.8  6229 - Mixed lowland shrub 12.8  122 - Road/Parking Lot 6.4  6229 - Mixed lowland shrub 50.2  6224 - Treed Bog 5.6  6229 - Mixed lowland shrub 11.3  122 - Road/Parking Lot 1.6  500 - Water 7.0  6225 - Bog 1.2  6229 - Mixed lowland shrub 9.0  122 - Road/Parking Lot 8.9	Cover Type       Acres       Site         330 - Low-Density Trees       15.2         6229 - Mixed lowland shrub       5.8       No         6229 - Mixed lowland shrub       12.8       No         122 - Road/Parking Lot       6.4       No         6229 - Mixed lowland shrub       50.2       No         6224 - Treed Bog       5.6       No         6229 - Mixed lowland shrub       11.3       No         122 - Road/Parking Lot       1.6       No         500 - Water       7.0       No         6225 - Bog       1.2       No         6229 - Mixed lowland shrub       9.0       No         6229 - Mixed lowland shrub       9.0       No         122 - Road/Parking Lot       8.9       No