Compartment Review Presentation

Gwinn Forest Management Unit

Compartment 32095
Entry Year 2016
Acreage: 1047.41170000
County Alger
Management Area: Chatham/Autrain Moraines

Revision Date: 2014-09-22

Stand Examiner: Ben Travis

Legal Description:

T44N, R21W, Sections 2,3,10,11 and 14.

Identified Planning Goals:

Planning will focus on timber management, forest recreation, fisheries management and wildlife habitat management. Public access, forest road maintenance, trespass incidents, forest regeneration, forest health, forest fire control, watershed considerations and resource damage are critical assessments considered during the forest mapping and inventory process. Overall forest management strives to provide for a diverse, healthy and productive forest through planning and implementation of sustainable, proper forest/habitat treatments.

Soil and topography:

Lowland soils include: Carbondale, Lupton and Tawas soils; Nahma-Ruse complex; and Cathro-Ensley mucks. Upland soils include: Shoepac-Ensley complex, Shoepac-Trenary silt loams, Chatham fine sandy loam, Trenary silt loam, Kiva fine sandy loam, Kalkaska-Cusino complex, Traunik cobbly fine sandy loam, Summerville fine sandy loam and Charlevoix-Ensley complex. Terrain ranges from gently rolling hills and low, long ridges to level swamps.

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

This compartment is comprised of one main block of state acreage, and two isolated, smaller parcels. The large block is bordered by additional state land on the north and east sides and small private parcels to the west and south. Plum Creek lands and small private parcels surround the two isolated, smaller parcels. Many of the small private parcels have rustic camps located on them. Hunting is the primary recreational use of these small holdings while the Plum Creek land is intensively managed for timber. A large farm is found to the southwest of this compartment. The AuTrain Waterfowl Refuge and sharecrop fields are located along the north edge of this compartment.

Unique Natural Features:

Canadian milk-vetch (Astragalus canadensis) to se.
Potential for goshawk, osprey, red-shouldered hawk, wolf and moose. Potential for wood turtle along Dexter Creek. Potential for climbing fumitory, goblin fern, large toothwort, ginseng, showy orchis, and Assiniboia sedge in mature hardwoods.

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

Special Management Designations or Considerations:

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations:

Compartment 95 is found within the Chatham/AuTrain Management Area; on a Fluted Ground Moraine in northeastern Marquette County and western Alger County. The dominant Natural Communities are mesic northern forests and poor conifer swamps. This Management Area provides one of the best opportunities in the WUP State Forest system to manage for large grasslands and associated wildlife species. Large opening management, along with sharecropped agricultural practices will continue to be a high priority here. Wildlife management issues in this management area will focus on maintaining large open land complexes; habitat fragmentation (patch size for openings); and mowing and burning practice modifications (for the eastern compartments).

The following have been identified as featured species for the Chatham/AuTrain Management Area: bobolink, Canada goose, northern goshawk, and sharp-tail grouse.

Mineral Resource and Development Concerns and/or Restrictions

Sections 10, 11 and 14, T45N-R21W, Alger County
Surface sediments consist of medium-textured glacial till and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 10 and 50 feet. The Ordovician Trenton and Black River Groups subcrop below the glacial drift. The Trenton and Black River are quarried for stone/dolomite elsewhere in the UP. Gravel pits are located in the area and potential appears to be good. This compartment has never been leased for metallic exploration. There is no economic oil and gas production in the UP.

Vehicle Access:

Public vehicle access is good for many portions of this compartment via Paulson Road, Trout Lake Road and several forest roads. Access to the two small parcels off of M-67 is restricted by private property and gates.

Survey Needs:

Several new survey monuments will be needed to accomplish land management activities.

Recreational Facilities and Opportunities:

Hunting, fishing, berry picking, mushroom picking, trapping, dog walking, bird watching, off-road vehicle usage and snowmobiling are the primary undeveloped recreation uses. The AuTrain Waterfowl Refuge is located to the immediate north of this compartment.

Fire Protection:

This area has a very low wildlife frequency and hazard rating.

Additional Compartment Information:

The following reports from the Inventory are attached:

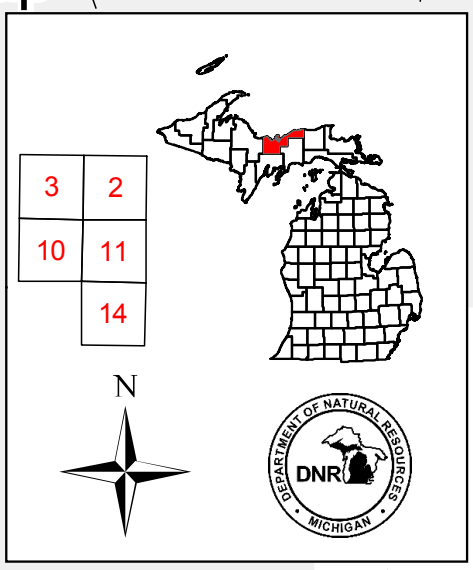
- **Total Acres by Cover Type and Age Class**
- **Cover Type by Harvest Method**
- **Proposed Treatments – No Limiting Factors**
- **Proposed Treatments – With Limiting Factors**
- **Stand Details (Forested and Nonforested)**
- **Dedicated and Proposed Special Conservation Areas**
- **Site Condition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

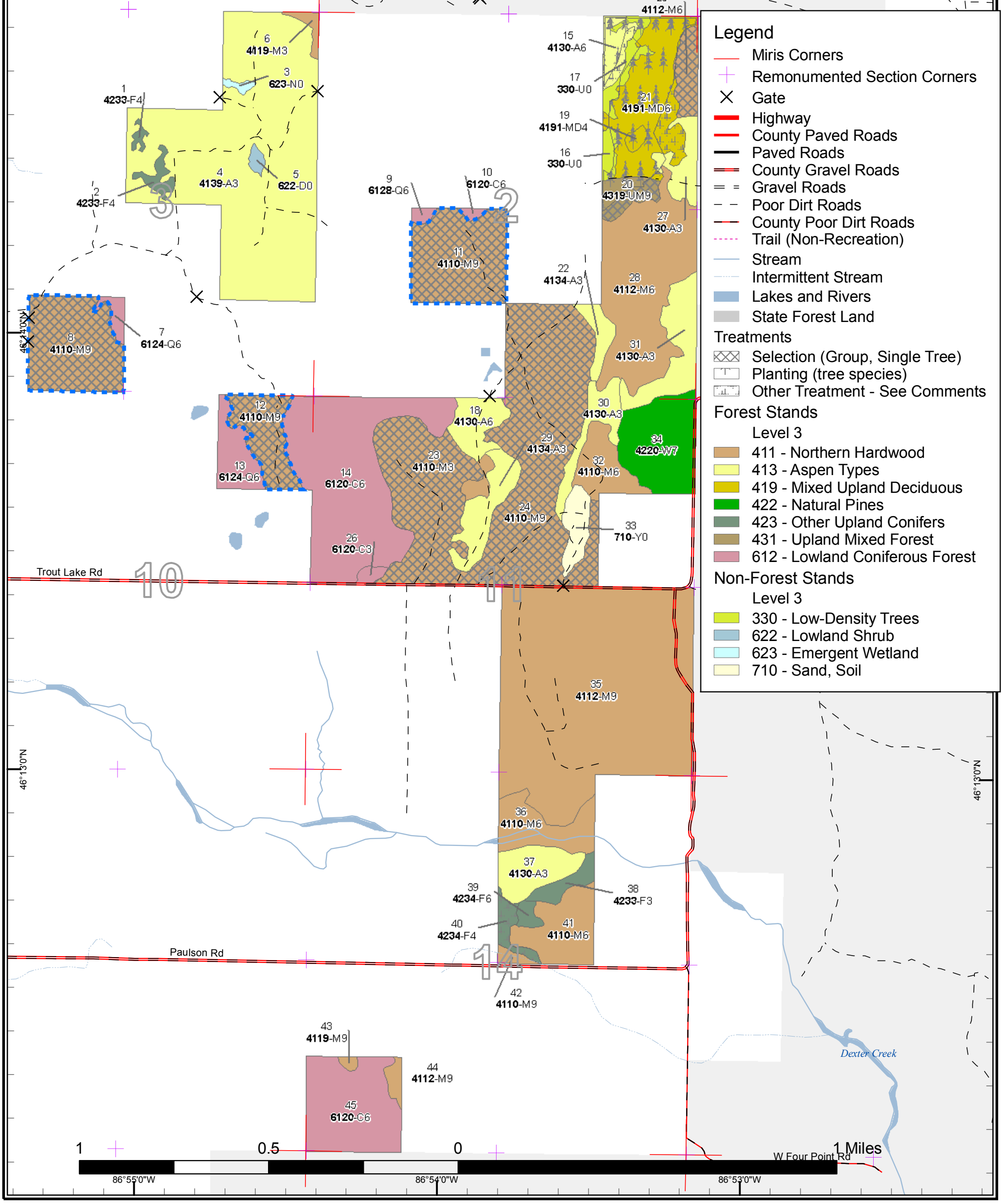
The following information is displayed, where pertinent, on the attached compartment maps:

- **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: 095
T44N R21W Sec. 02,03,10,11,14
County: Alger
Unit: Gwinn
Management Area: Chatham/Autrain Moraines
YOE: 2016
Acres: 1,047 GIS Calculated
Examiner: Ben Travis
Map Revised: 09/18/2014
Map Phase: Pre-Review





Legend

- Miris Corners
- Remonumented Section Corners
- Gate
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Stream
- Intermittent Stream
- Lakes and Rivers
- State Forest Land

Treatments

- Selection (Group, Single Tree)
- Planting (tree species)
- Other Treatment - See Comments

Forest Stands

Level 3

- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 431 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest

Non-Forest Stands

Level 3

- 330 - Low-Density Trees
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 710 - Sand, Soil

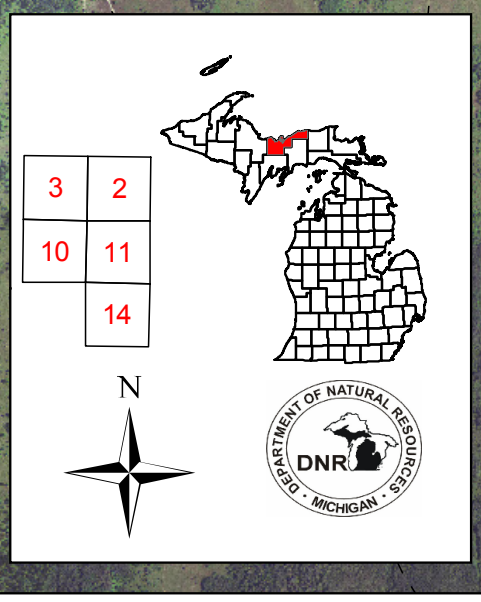
Stand Boundary Map

Compartment: 095
T44N R21W Sec. 02,03,10,11,14
County: Alger
Unit: Gwinn
Management Area: Chatham/Autrain Moraines
YOE: 2016
Acres: 1,047 GIS Calculated
Examiner: Ben Travis
Map Revised: 07/01/2014
Map Phase: Pre-Review

Stand # 23

Stocking Density

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



Legend

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Special Conservation Areas & Site Conditions Map

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T44N R21W Sec. 02,03,10,11,14
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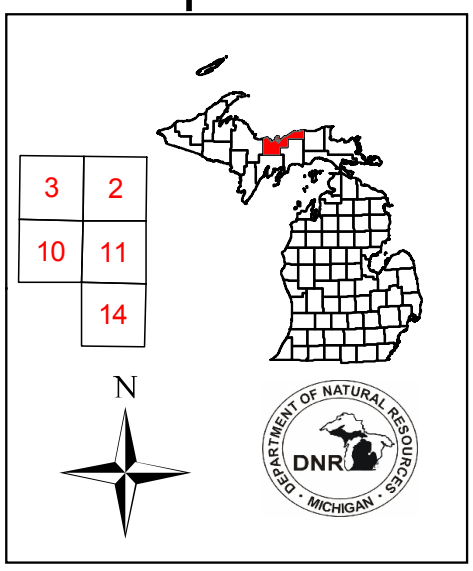

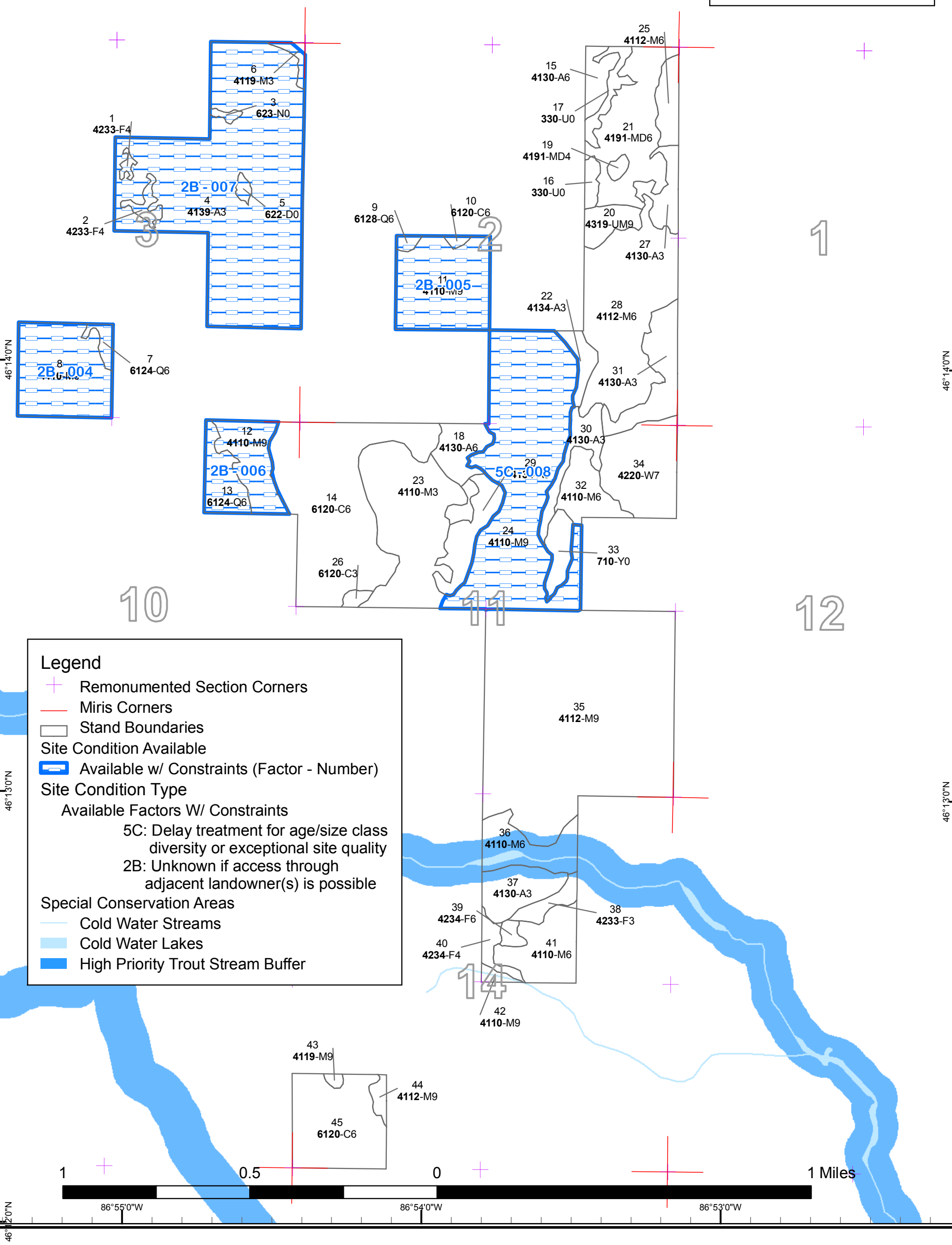

Legend

- Remonumented Section Corners
- Miris Corners
- Stand Boundaries

Site Condition Available

- Available w/ Constraints (Factor - Number)

Site Condition Type

Available Factors W/ Constraints

- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2B: Unknown if access through adjacent landowner(s) is possible

Special Conservation Areas

- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer

Report 1 – Total Acres by Cover Type and Age Class

Gwinn Mgt. Unit **Compartment 095 Year of Entry 2016**

Ben Travis : Examiner

Age Class

	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	Total
Aspen	27	31	168	0	18	0	0	0	0	0	0	0	0	0	**245**
Cedar	0	0	0	0	2	0	0	0	0	1	80	0	37	0	**119**
Low-Density Trees	9	0	0	0	0	0	0	0	0	0	0	0	0	0	**9**
Lowland Conifers	0	0	0	0	16	0	0	0	0	0	0	0	0	0	**16**
Marsh	1	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
Mixed Upland Deciduous	0	0	0	2	0	36	0	0	0	0	0	0	0	0	**38**
Northern Hardwood	0	3	2	0	0	8	22	255	55	192	18	0	0	0	**556**
Sand, Soil	8	0	0	0	0	0	0	0	0	0	0	0	0	0	**8**
Treed Bog	1	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
Upland Mixed Forest	0	0	0	0	0	8	0	0	0	0	0	0	0	0	**8**
Upland Spruce/Fir	0	0	10	5	2	0	0	0	0	0	0	0	0	0	**17**
White Pine	0	0	0	0	0	0	0	30	0	0	0	0	0	0	**30**
Total	**47**	**34**	**180**	**6**	**39**	**52**	**22**	**285**	**55**	**193**	**98**	**0**	**37**	**0**	**1047**

Report 2 – Proposed Treatment Summaries

Gwinn Mgt. Unit
Year of Entry 2016

Compartment 095
Total Compartment Acres: 1,047

Acres by Treatment Type

Commercial Harvest - 260	Tree Planting - 43	Other - 15
Habitat Cut - 0	Opening Maintenance - 0	

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Northern Hardwood	0	256	0	0	0	0	**256**
Upland Mixed Forest	0	4	0	0	0	0	**4**
Total	**0**	**260**	**0**	**0**	**0**	**0**	**260**

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
20	32095020-Cut	4.4	4319 - Mixed Upland Forest	High Density Log	54		Harvest	Single Tree Selection	411 - Northern Hardwood	Cmpt. Review Proposal

Prescription Specs: Leave some small patches of trees, mainly along private line. Leave any oak, hemlock, cedar, white pine, yellow birch and red pine. Exclude any maple patches. Retain any maple 18 inches Dbh and larger.

Other Comments: Have verbal permission for sale access crossing Ruck private 40.

Next Steps: Follow-up treatment with a regeneration survey specified in "Work Instruction 2.1 Reforestation". Acceptable regeneration includes maple, basswood, black cherry, birch, spruce, fir, aspen, white pine, and hemlock.

Proposed Start Date: 10/01/2015

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
24	32095024-Cut	155.0	4110 - Sugar Maple Association	High Density Log	95	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Cmpt. Review Proposal

Prescription Specs: Selectively mark individual trees for harvest to promote an uneven aged stand structure. Residual basal area should be between 80 to 90 square feet. Emphasis will be on improving the timber quality and productivity of the stand by releasing future crop trees. Remove majority of defective, poor form, high risk, and/or poorly spaced competitors to achieve the target basal area. Quality timber trees may also be selected when suitable. Wildlife habitat, forest health, tree species diversity, and regeneration gaps are important factors to consider when marking the stand for sale. Release of dense advanced maple regeneration is desirable. Strive to maintain a diversity of diameter classes in the overstory. Retain any white pine, cedar, hemlock, oak, or white spruce present. Favor yellow birch, black cherry, and basswood retention. Retain all ash and beech if present unless exceeding 10 sq ft per acre per species.

Other Comments:

Next Steps: Follow-up treatment with a regeneration survey specified in "Work Instruction 2.1 Reforestation". Acceptable regeneration includes maple, basswood, black cherry, birch, spruce, white pine, and hemlock.

Proposed Start Date: 10/01/2015

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
25	32095025-Cut	8.1	4112 - Maple, Beech, Cherry Association	High Density Pole	55	141-170	Harvest	Single Tree Selection	411 - Northern Hardwood	Cmpt. Review Proposal

Prescription Specs: Selectively mark individual trees for harvest to promote an uneven aged stand structure. Residual basal area should be between 80 to 90 square feet. Emphasis will be on improving the timber quality and productivity of the stand by releasing future crop trees. Remove majority of defective, poor form, high risk, and/or poorly spaced competitors to achieve the target basal area. Quality timber trees may also be selected when suitable. Wildlife habitat, forest health, tree species diversity, and regeneration gaps are important factors to consider when marking the stand for sale. Release of desne advanced maple regeneration is desirable. Strive to maintain a diversity of diameter classes in the overstory. Retain any white pine, cedar, hemlock, oak, or white spruce present. Favor yellow birch, black cherry, and basswood retention. Retain ash and beech if present unless density exceeds 10 sq ft for each species. Leave some scattered aspen in overstory.

Other Comments:

Next Steps: Follow-up treatment with a regeneration survey specified in "Work Instruction 2.1 Reforestation". Acceptable regeneration includes maple, basswood, black cherry, birch, spruce, white pine, and hemlock.

Proposed Start Date: 10/01/2015

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
	32095_OutOfYOE-Plant	42.9					Tree Planting	Hand Plant	4210 - Planted White Pine	Successful Completion - Pending Next Step

Prescription Specs: Handplant limited number of 6 to 10 foot red oak within this stand for featured species and white-tailed deer.

Other Comments:

Next Steps: Monitor success of this limited oak planting.

Proposed Start Date: Unspecified

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
15	32095015-Other	2.7	4130 - Aspen	High Density Pole	44		Other	Other - Specify	4130 - Aspen	Cmpt. Review Proposal

Prescription Specs: Planting of hard/soft mast trees/shrubs to benefit wildife species. Pine may also be planted to add diversity to this forested stand.

Other Comments:

Next Steps:

Proposed Start Date: Unspecified

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
21	32095021-Other	7.5	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	54		Other	Other - Specify	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal

Prescription Specs: Planting of hard/soft mast trees/shrubs to benefit wildife species. Pine may also be planted to add diversity to this forested stand.

Other Comments:

Next Steps:

Proposed Start Date: Unspecified

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
40	32095040-Other	4.6	42340 - Upland Spruce/Fir	Low Density Pole	30		Other	Other - Specify	42340 - Upland Spruce/Fir	Cmpt. Review Proposal

Prescription Specs: Planting of hard/soft mast trees/shrubs to benefit wildife species. Pine may also be planted to add diversity to this forested stand.

Other Comments:

Next Steps:

Proposed Start Date: Unspecified

Total Treatment Acreage Proposed: 225.1

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
8	32095008-Cut	37.1	4110 - Sugar Maple Association	High Density Log	90	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Cmpt. Review Proposal

Prescription Specs: Selectively mark individual trees for harvest to promote an uneven aged stand structure. Residual basal area should be between 80 to 90 square feet. Emphasis will be on improving the timber quality and productivity of the stand by releasing future crop trees. Remove majority of defective, poor form, high risk, and/or poorly spaced competitors to achieve the target basal area. Quality timber trees may also be selected when suitable. Wildlife habitat, forest health, tree species diversity, and regeneration gaps are important factors to consider when marking the stand for sale. Release of desne advanced maple regeneration is desirable. Strive to maintain a diversity of diameter classes in the overstory. Retain any white pine, cedar, hemlock, oak, or white spruce present. Favor yellow birch, black cherry, and basswood retention. Retain ash and beech if present unless density exceeds 10 sq ft for each species..

Other Comment: The forty containing this stand has been recommended for disposal due to lack of public access. This sale should be prepared as soon as possible and have a one year contract length. This will be an out-of-entry year treatment. Will need to request that survey monuments be placed around this 40.

Next Steps: Follow-up treatment with a regeneration survey specified in "Work Instruction 2.1 Reforestation". Acceptable regeneration includes maple, basswood, black cherry, birch, spruce, white pine, and hemlock.

Proposed Start Date: 10/01/2014

Limiting Factor: 2B: Unknown if access through adjacent landowner(s) is possible

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
11	32095011-Cut	37.8	4110 - Sugar Maple Association	High Density Log	85	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Cmpt. Review Proposal

Prescription Specs: Selectively mark individual trees for harvest to promote an uneven aged stand structure. Residual basal area should be between 80 to 90 square feet. Emphasis will be on improving the timber quality and productivity of the stand by releasing future crop trees. Remove majority of defective, poor form, high risk, and/or poorly spaced competitors to achieve the target basal area. Quality timber trees may also be selected when suitable. Wildlife habitat, forest health, tree species diversity, and regeneration gaps are important factors to consider when marking the stand for sale. Release of desne advanced maple regeneration is desirable. Strive to maintain a diversity of diameter classes in the overstory. Retain any white pine, cedar, hemlock, oak, or white spruce present. Favor yellow birch, black cherry, and basswood retention. Retain ash and beech if present unless density exceeds 10 sq ft for each species. Leave some scattered aspen in overstory.

Other Comment: There isn't an easement to reach this 40. Timber has been harvested here in the past so hopefully the landowner will allow future access. Survey monument placement will be requested. Also a vernal pond exists on access road just at 40 line. This will probably force a winter cut only.

Next Steps: Follow-up treatment with a regeneration survey specified in "Work Instruction 2.1 Reforestation". Acceptable regeneration includes maple, basswood, black cherry, birch, spruce, white pine, and hemlock.

Proposed Start Date: 10/01/2015

Limiting Factor: 2B: Unknown if access through adjacent landowner(s) is possible

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
12	32095012-Cut	17.7	4110 - Sugar Maple Association	High Density Log	100	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Cmpt. Review Proposal

Prescription Specs: Selectively mark individual trees for harvest to promote an uneven aged stand structure. Residual basal area should be between 80 to 90 square feet. Emphasis will be on improving the timber quality and productivity of the stand by releasing future crop trees. Remove majority of defective, poor form, high risk, and/or poorly spaced competitors to achieve the target basal area. Quality timber trees may also be selected when suitable. Wildlife habitat, forest health, tree species diversity, and regeneration gaps are important factors to consider when marking the stand for sale. Release of desne advanced maple regeneration is desirable. Strive to maintain a diversity of diameter classes in the overstory. Retain any white pine, cedar, hemlock, oak, or white spruce present. Favor yellow birch, black cherry, and basswood retention. Retain ash and beech if present unless density exceeds 10 sq ft for each species..

Other Comment: Access will need to be formalized. The landowner to north of stand has given verbal permission for a harvest. Attempts to contact the landowner controlling access from M-67 have failed though many camps and Plum Creek use this road for access.

Next Steps: Follow-up treatment with a regeneration survey specified in "Work Instruction 2.1 Reforestation". Acceptable regeneration includes maple, basswood, black cherry, birch, spruce, white pine, and hemlock.

Proposed Start Date: 10/01/2015

Limiting Factor: 2B: Unknown if access through adjacent landowner(s) is possible

Total Treatment Acreage Proposed: **92.7**

Report 5 – Site Conditions

Gwinn Mgt. Unit

Ben Travis : Examiner

Compartment 095

Year of Entry 2016

Availability for Management

Total Acres	Acres Available	Acres Not Available		Dominant Site Conditions No	2B
244	244		**Aspen**	92	153
119	119		**Cedar**	118	1
16	16		**Lowland Conifers**		16
37	37		**Mixed Upland Deciduous**	37	
555	555		**Northern Hardwood**	461	95
8	8		**Upland Mixed Forest**	8	
17	17		**Upland Spruce/Fir**	12	4
30	30		**White Pine**	30	
1,027	1,027		Total Forested Acres	757	269
	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
004	**Available**	**2B: Unknown if access through adjacent landowner(s) is possible**	40	2I: Survey needed			
Comments:							
005	**Available**	**2B: Unknown if access through adjacent landowner(s) is possible**	40	2I: Survey needed			
Comments:							
006	**Available**	**2B: Unknown if access through adjacent landowner(s) is possible**	30	2I: Survey needed			
Comments:							

Report 5 – Site Conditions

Gwinn Mgt. Unit

Ben Travis : Examiner

Compartment 095

Year of Entry 2016

007	**Available**	**2B: Unknown if access through adjacent landowner(s) is possible**	162

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

Comments

Report 7 – EXISTING SPECIAL CONSERVATION AREA DETAILS

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

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

Conservation Area	Type	Description
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
SCA	Habitat Area	An area that provide some specific need for the life cycle of wildlife species, including State Wildlife Areas and Waterfowl Production Areas, deer wintering complexes in lowland conifer communities, grassland openings and savannas. Habitat areas are distinct from critical habitat designated for recovery of endangered or threatened species (such as Kirtland's warbler or piping plover areas) in that they are more general in nature, are not primarily associated with threatened or endangered species, and are not covered by species recovery plans that are developed in cooperation with Federal agencies.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42330 - Upland Fir	Low Density Pole	1.1	23		
2	42330 - Upland Fir	Low Density Pole	3.3	23		Stand approximately 75% open. Raspberries and tansy in herbaceous layer.
4	4139 - Aspen, Mixed Deciduous	High Density Sapling	153.4	23		Stand was harvested in in 1990. Very satisfactory stocking levels. 6 small patches of mature timber were left throughout the stand for diversity. Very diverse species composition. Areas where aspen is up to 6 inches Dbh and 1/2 to 1 stick tall. 16 to 18 inch Dbh white spruce, trembling aspen, fir, bigtooth aspen, black cherry and sugar maple comprise the retention patches. American elm poles and saplings are infrequently found.
6	4119 - Mixed Northern Hardwoods	High Density Sapling	2.4	23		Hilly area. Heavy stocking. Small inclusion of mature hardwoods to south. White birch poles and saplings present.
7	6124 - Lowland Spruce-Fir	High Density Pole	3.1	45		Ponding of water.
8	4110 - Sugar Maple Association	High Density Log	37.1	90	111-140	Site predominantly level. Patches of good sugar maple regeneration. Leeks and maidenhair fern.
9	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	1.4	45		Many pools. Sphagnum moss common. Blueberry and Labrador tea present. Low timber quality and site productivity.
10	6120 - Lowland Cedar	High Density Pole	1.0	98		
11	4110 - Sugar Maple Association	High Density Log	37.8	85	111-140	Rolling hills. Found several 12 inch to 19 inch Dbh American elm. High quality timber on good site. No leeks on site.
12	4110 - Sugar Maple Association	High Density Log	17.7	100	111-140	Uncertain if permission to cross private lands with logging equipment would be granted. High quality timber stand. Cherry infrequent overstory associate.
13	6124 - Lowland Spruce-Fir	High Density Pole	12.0	45		Scattered white birch in overstory. Pockets of thicker cedar. Ponding of water common.
14	6120 - Lowland Cedar	High Density Pole	79.9	105		Stocking levels lower to south. Cedar saplings found. Not seeing any flooding damage. Webber creek flows through southeast portion of stand.
15	4130 - Aspen	High Density Pole	6.9	44		Sparse serviceberry. Fir, white pine, ironwood and elm are uncommon overstory associates.
18	4130 - Aspen	High Density Pole	11.1	40	81-110	Sparse elm saplings.
19	4191 - Mixed Upland Deciduous with Conifer	Low Density Pole	1.7	35		Open patches of sedge/lichens/club moss. Infrequent beaked hazel.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
20	4319 - Mixed Upland Forest	High Density Log	7.7	54		Patchy aspen distribution. Aspen 4 stick tall. 4 to 6 stick tall fir. Red maple saplings found.
21	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	36.0	54		2 to 3 stick aspen. White pines have multiple forks at tops.
22	4134 - Aspen, Spruce/Fir	High Density Sapling	5.8	17		Sparse white pine and red maple poletimber. Red maple and black cherry saplings present.
23	4110 - Sugar Maple Association	High Density Sapling	3.1	16		Elm saplings present.
24	4110 - Sugar Maple Association	High Density Log	155.0	95	111-140	
25	4112 - Maple, Beech, Cherry Association	High Density Pole	8.2	55	141-170	Straight maple boles. White spruce and hemlock are uncommon overstory associates.
26	6120 - Lowland Cedar	High Density Sapling	1.8	40		Cedar healthy and around 20 feet tall.
27	4130 - Aspen	High Density Sapling	9.0	6		Regeneration is adequate. Raspberry present. Red maple and ironwood saplings present. White pine poletimber found.
28	4112 - Maple, Beech, Cherry Association	High Density Pole	62.0	78	81-110	
29	4134 - Aspen, Spruce/Fir	High Density Sapling	14.6	16		Some pools of water at south end of stand. Small patch of white pine, yellow birch and red maple saplings around this water.
30	4130 - Aspen	High Density Sapling	10.7	17		
31	4130 - Aspen	High Density Sapling	18.4	6		Very good aspen stocking. Few white pine poles and sawlogs present. Aspen 12 to 16 foot tall.
32	4110 - Sugar Maple Association	High Density Pole	13.5	85	81-110	
34	42200 - Natural White Pine	Low Density Log	29.6	70	1-50	Very good aspen regeneration. White pine have healthy crowns. White pine range from 10 to 16 inch Dbh. Retention patch left. Red maple saplings found. Aspen 1 to 2 inches Dbh.
35	4112 - Maple, Beech, Cherry Association	High Density Log	175.7	75	81-110	Red maple stump sprouts over 10 feet tall. Patches of heavy ironwood regeneration. Lot of leatherwood. High levels of raspberry, particularly to the south. Couple ridges in stand. Cedar and white spruce are uncommon overstory associates. Fir saplings found. Crown gaps common. High quality timber stand.
36	4110 - Sugar Maple Association	High Density Pole	17.4	72	51-80	Riparian corridor for Dexter Creek. Yellow birch, black cherry and basswood are overstory associates.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
37	4130 - Aspen	High Density Sapling	14.8	25		Good stocking levels. Sugar maple saplings found.
38	42330 - Upland Fir	High Density Sapling	5.3	25		Very dense stocking. Alternate leaved dogwood found.
39	42340 - Upland Spruce/Fir	High Density Pole	2.3	43		Poor timber quality to maple. Basswood and cedar are infrequent overstory associates.
40	42340 - Upland Spruce/Fir	Low Density Pole	4.6	30		Former opening. Rough ground. Found white pine and aspen saplings. Sugar maple and trembling aspen poles present. Small patch of mature upland cedar within SE corner of stand.
41	4110 - Sugar Maple Association	High Density Pole	20.2	65	51-80	Many large canopy gaps with associated raspberry. Sparse leatherwood. Some fir and white spruce poles along south edge. Scarse upland overstory cedar. Black cherry spalings found. Quality timber potential.
42	4110 - Sugar Maple Association	High Density Log	1.8	65	51-80	Scattered aspen poles.
43	4119 - Mixed Northern Hardwoods	High Density Log	1.0	85	81-110	
44	4112 - Maple, Beech, Cherry Association	High Density Log	2.6	85	81-110	
45	6120 - Lowland Cedar	High Density Pole	36.8	134		Spruce and white birch overstory associates.

Report 9 – Nonforested Stands

Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
3	6233 - Wet Meadow	1.2	No	Unspecified	Some ponding. Fir and white pine saplings present. Willow.
5	6224 - Treed Bog	1.5	No	Unspecified	Nearly pure black spruce - 3 to 4 inch Dbh. Infrequent white pine and tamarack saplings. Sedge and willow present.
16	3303 - Mixed Low Density Trees	3.1	No	Unspecified	Very rough ground. Aspen, black cherry, fir, white pine and white spruce small poles present. Cherry brush prevalent. Will move into forested condition by next entry.
17	3301 - Low Density Deciduous Tree	5.9	Unspecified	Unspecified	Wildlife Division planted large red oak saplings Spring of 2013. North south running ridge along west side of stand. Cherry brush and aspen saplings prevalent. Also fir, white spruce and white pine saplings present. Black cherry, white pine and white spruce poles present. Stand semi-open.
33	710 - Sand, Soil	7.9	Yes	Low	Fringe of balsam poplar saplings and chokecherry.