



**TRAVERSE CITY FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 174 ENTRY YEAR: 2012

Compartment Acreage: 1831 County: Kalkaska

Stand Examiner: Steve Crigier

Legal Description: T28N, R7W, Sec: 14, 15, 16 & 17

Management Goals: To continue to selectively harvest the northern hardwood stands. These harvests will promote healthier timber and grow high quality sawlogs and veneer.

Soil and Topography: The Terrain is mostly upland on Kalkaska sandy loams with some rolling hills. The flood plain of the Rapid River is poorly drained soils on Rifle peat.

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

There are several private holdings with in the compartment and there is a mixture of state and private land adjacent to the compartment. The land with in the compartment has been intensely manage for hardwood lumber as is the state land next to the compartment. The private land in and around the compartment is mostly recreational/season use land. There is also a fair amount of oil & gas activity.

Unique, Natural Features (include only non-site specific and non-sensitive information):

None noted

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information): None noted

Special Management Designations or Considerations: none

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations:

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift is the Mississippian Coldwater Shale. There is no current economic use for the Coldwater Shale. Gravel pits are located within this compartment, in Section 14. Gravel potential in the compartment is considered good. This area is located along the northern edge of the Silurian Niagaran reef trend. All State mineral rights are currently leased for oil and gas development. There may be additional reef potential. The Antrim Shale has been developed in the Compartment and to the north and west.

Vehicle Access: Smith, Day and Wallace Road provide good gravel access with numerous poor dirt roads branching off through out the compartment.

Survey Needs: Might need a couple of corners placed in the northwest part of section 16. Will need to check for private corners before submitting a request.

Recreational Facilities and Opportunities: The Leetsville ORV trail runs through the south east portion of the compartment. The area is also used by hunters and fisherman.

Fire Protection: VFD Fire Protection is from the Kalkaska Fire Dept., and DNRE Protection is from the Kalkaska Field Office. Travel time is very good, access is sufficient, Urban Innerface is a potential problem in parts of Sections 14 and 15 with scattered residences.

Additional Compartment Information:

****** Cover type details, proposed treatments and stands designated as FDF are listed in the attached reports:**

- Cover Type by Age Class**
- Cover Type by Management Objective**
- Compartment Volume Summary**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**

****** The following information is displayed on the attached compartment maps:**

- Base feature information, stand numbers, cover types**
- Proposed treatments**
- Proposed road access system**
- Suggested potential old growth**

Cover Type & Treatment Map

Compartment 174
 T28N, R07W, Sec. 14, 15, 16, 17
 County: Kalkaska
 Unit: Traverse City
 YOE: 2012
 Acres: 1,831 GIS Calculated
 Stand Examiner: Steve Crigier
 Map Revised: 4/30/2010
 Map Phase: Pre-Review

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

Legend

- Miris Corners
- Highway
- Paved Roads
- - County Gravel Roads
- - Poor Dirt Roads
- Pipe
- Power
- Railroads
- - - Trails
- ORV Trails
- Motorcycle Trails
- US Highway
- - - Intermittent Stream/Drain
- Stream
- Lakes and Rivers

Treatments

- Clearcut (w/Reserves, Patch/Strip)
- Selection (Group, Single Tree)

Forest Stands

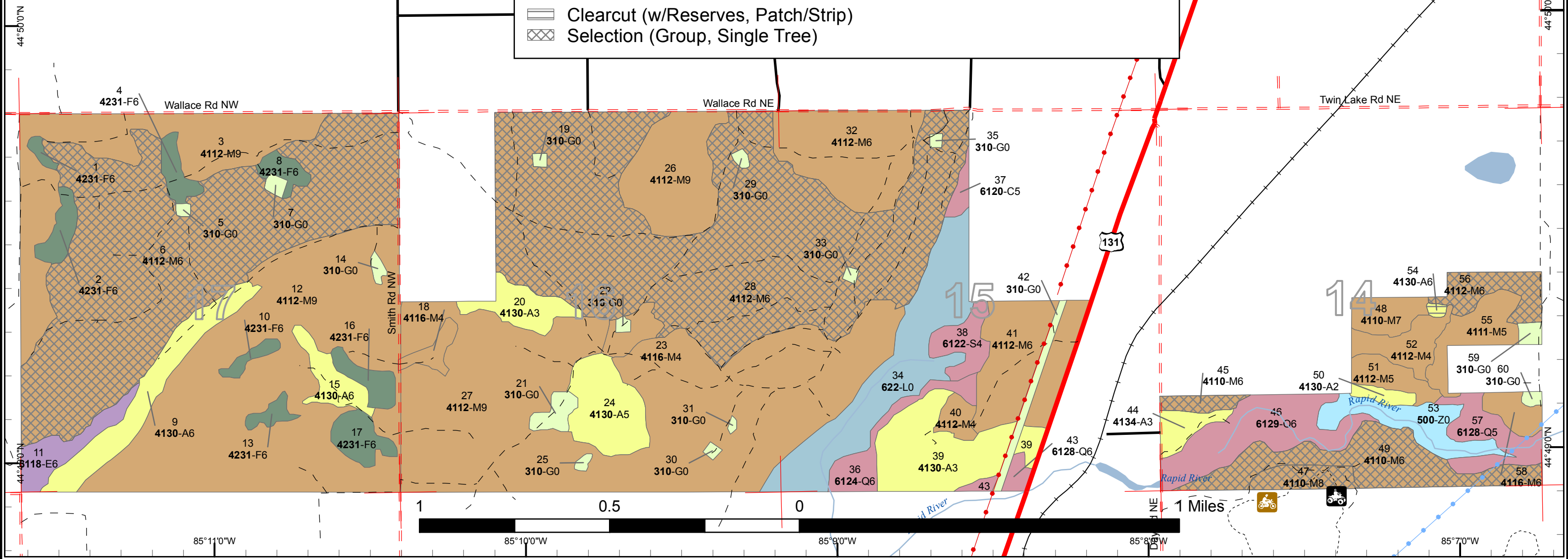
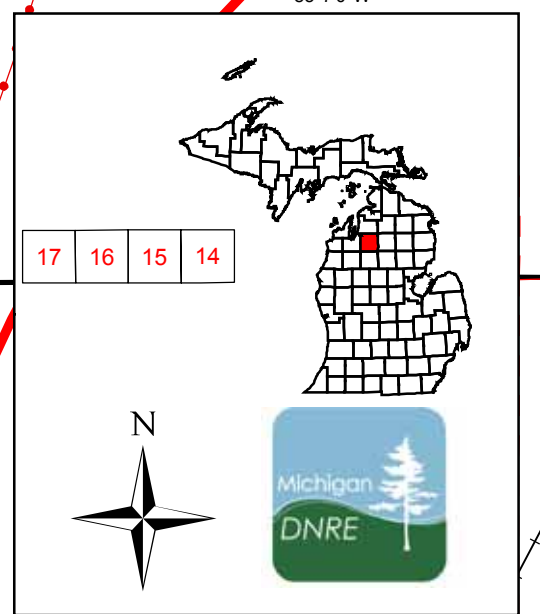
Level 3

- 411 - Northern Hardwood
- 413 - Aspen Types
- 423 - Other Upland Conifers
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest

Non-Forest Stands

Level 3

- 310 - Herbaceous Openland
- 500 - Water
- 622 - Lowland Shrub



Stand Boundary Map

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Stand # **23** Stocking Density
(412)0 - A7
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- Highway
- Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- Pipe
- Power
- Railroads
- Intermittent Stream/Drain Non-Forest Stands
- Stream
- Lakes and Rivers
- Trails
- US Highway
- ORV Trails
- Motorcycle Trails
- Stand Boundaries

Forest Stands

Level 3

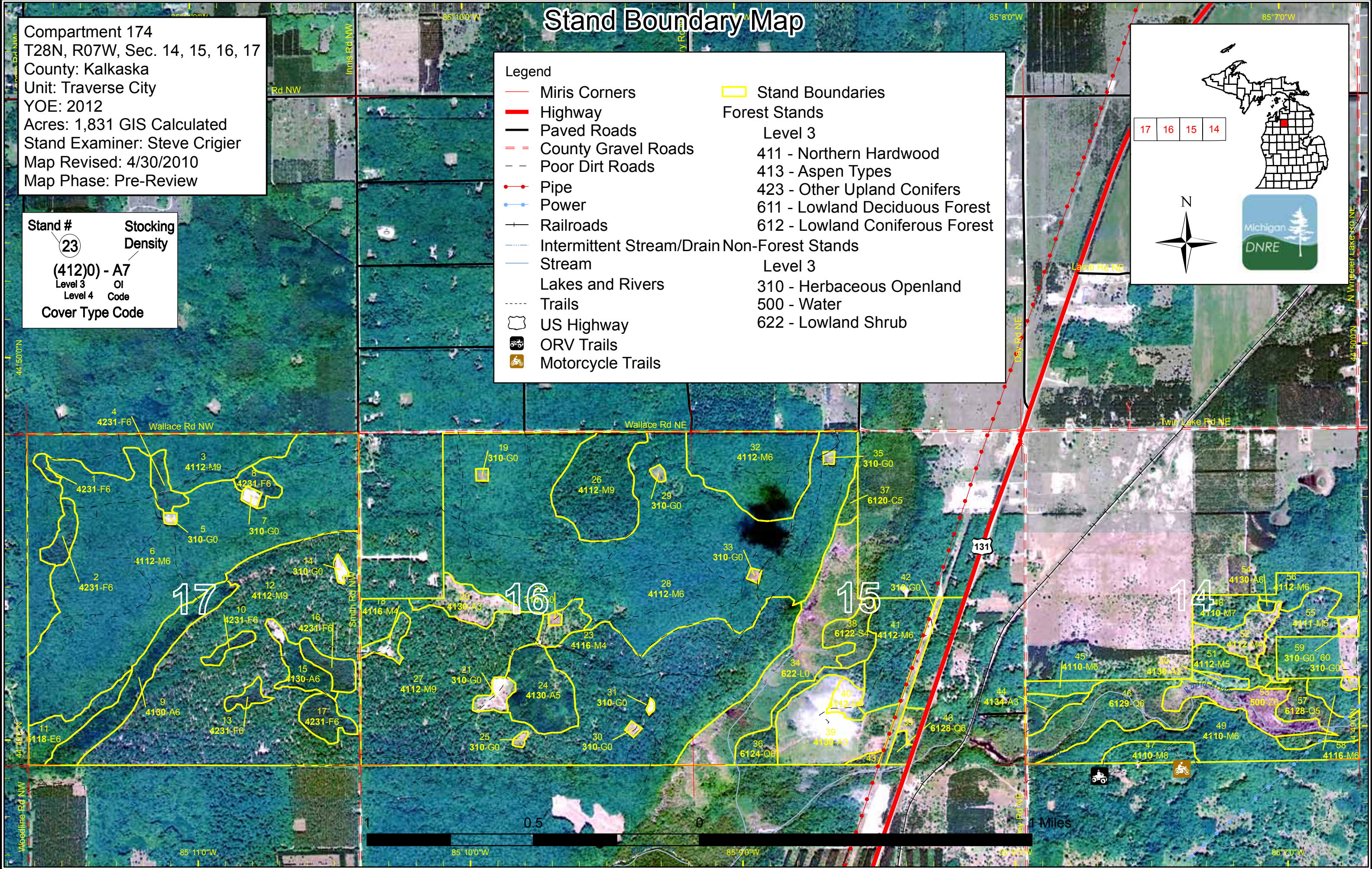
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Dedicated & Proposed Special Conservation Area Map

Legend

- Miris Corners
- Stand Boundaries
- Dedicated Special Conservation Areas
- Cold Water Streams

Forest Stands

Level 3

- 411 - Northern Hardwood
- 413 - Aspen Types
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Non-Forest Stands

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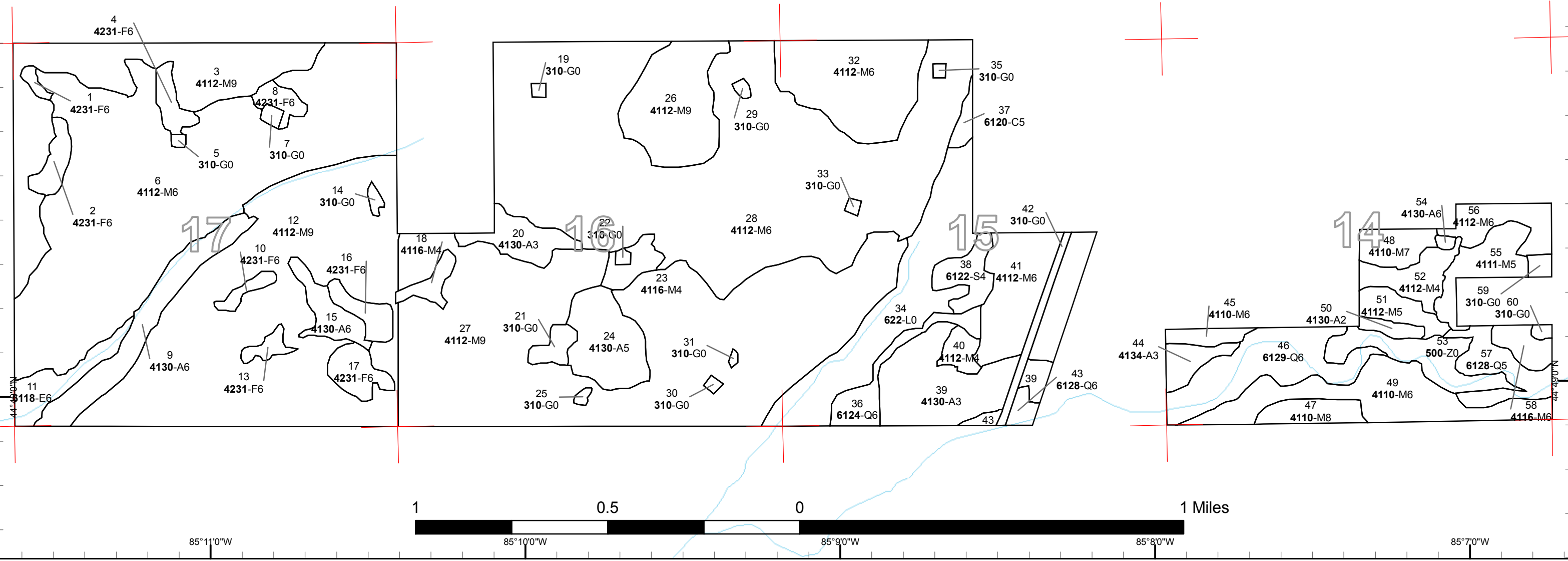
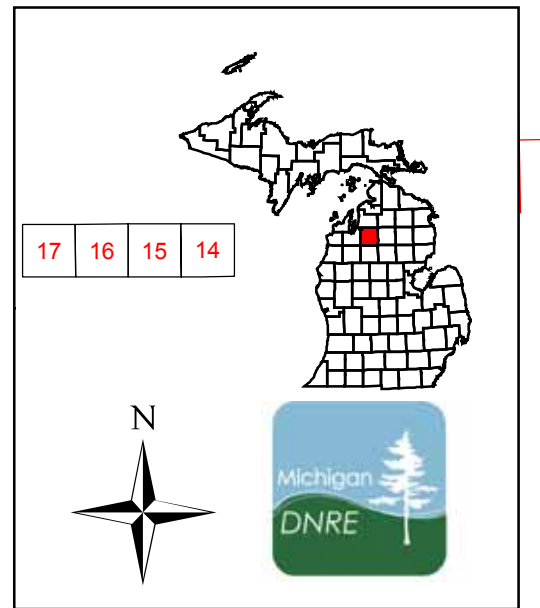


Table 1 – Total Acres by Cover Type and Age Class
 (Level 3 Cover Type)



	Age Class														Total	
	Non-Forested	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120 +		Uneven Age
Aspen Types	0	57	4	8	11	28	0	0	0	30	0	0	0	0	0	138
Herbaceous Openland	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26
Lowland Coniferous Forest	0	0	0	0	0	0	0	0	0	92	0	0	0	0	0	92
Lowland Deciduous Forest	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	14
Lowland Shrub	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	64
Northern Hardwood	0	0	0	0	33	0	0	0	472	918	0	0	0	0	0	1422
Other Upland Conifers	0	0	0	0	0	46	0	0	0	0	0	0	0	0	0	46
Water	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Total	111	57	4	8	44	74	0	0	472	1053	0	0	0	0	0	1823



Table 2 – Proposed Treatment Summaries

Traverse City Mgt. Unit
Year of Entry 2012

Compartment 174
Total Compartment Acres: 1823

Acres by Treatment Type

Commercial Harvest - 639	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

	<i>Clearcut</i>	<i>Selection</i>	<i>Seed Tree</i>	<i>Shelterwood</i>	<i>Thinning</i>	<i>Other - Specify</i>	<i>Total Acres</i>
Aspen	1	0	0	0	0	0	1
Northern Hardwood	0	638	0	0	0	0	638
Total	1	638	0	0	0	0	639



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
6	61174006-Cut	245.3	4112 - Maple, Beech, Cherry Association	High Density Pole	82	Harvest	Single Tree Selection	Maple, Beech, Cherry Association	Cmpt. Review Proposal
<p><u>Prescription</u> Thin stand down to 80sqft/ac. Maintain under represented spp. Create some regen holes. Remove most of the aspen</p> <p><u>Specs:</u></p> <p><u>Other</u> Stand has large bluff in south west part of stand. May have to buffer this area out.</p> <p><u>Comments:</u></p> <p><u>Next</u> Thin in 10-20 yrs again.</p> <p><u>Steps:</u></p>									
28	61174028-Cut	316.8	4112 - Maple, Beech, Cherry Association	High Density Pole	79	Harvest	Single Tree Selection	Maple, Beech, Cherry Association	Cmpt. Review Proposal
<p><u>Prescription</u> Thin stand down to 80 sqft/ac. remove most of the aspen. Retain under represented spp. Create a few regen holes</p> <p><u>Specs:</u></p> <p><u>Other</u> Stand contains well pads and pipelines. Lots of road access.</p> <p><u>Comments:</u></p> <p><u>Next</u> check for regen 4 yrs after harvest.</p> <p><u>Steps:</u></p>									
45	61174045-Cut	5.5	4110 - Sugar Maple Association	High Density Pole	80	Harvest	Single Tree Selection	Maple, Beech, Cherry Association	Cmpt. Review Proposal
<p><u>Prescription</u> Thin stand down to 80 sqft/ac. Maintain component of under represented spp.</p> <p><u>Specs:</u></p> <p><u>Other</u> Access through aspen stand to the south. rolling terrain could make the sale difficult to sell.</p> <p><u>Comments:</u></p> <p><u>Next</u> regen check 4 yrs after harvest.</p> <p><u>Steps:</u></p>									
47	61174047-Cut	10.3	4110 - Sugar Maple Association	Medium Density Log	78	Harvest	Single Tree Selection	Sugar Maple Association	Cmpt. Review Proposal
<p><u>Prescription</u> Thin stand. Target basswood clumps.</p> <p><u>Specs:</u></p> <p><u>Other</u> Set stand up in 2020 YOE with stand to the south in comp 172. Stand has Leetsville ORV Tr. running through it.</p> <p><u>Comments:</u></p> <p><u>Next</u></p> <p><u>Steps:</u></p>									
49	61174049-Cut	44.9	4110 - Sugar Maple Association	High Density Pole	78	Harvest	Single Tree Selection	Sugar Maple Association	Cmpt. Review Proposal
<p><u>Prescription</u> Thin stand to 80sqft/ac.</p> <p><u>Specs:</u></p> <p><u>Other</u> Lots of advanced regen. Set up with stand to the south in comp 172 (2020 YOE).</p> <p><u>Comments:</u></p> <p><u>Next</u> regen check 4 yrs after harvest.</p> <p><u>Steps:</u></p>									
54	61174054-Cut	1.0	4130 - Aspen	High Density Pole	45	Harvest	Clearcut	Aspen	Cmpt. Review Proposal
<p><u>Prescription</u> Clearcut aspen clone.</p> <p><u>Specs:</u></p> <p><u>Other</u> Corner is in for line work. Harvest stand with the hardwood to the east.</p> <p><u>Comments:</u></p> <p><u>Next</u> regen check 4 yrs after harvest.</p> <p><u>Steps:</u></p>									

**Table 3 -- Treatments Prescribed
with No Limiting Factor**



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	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
56	61174056-Cut	15.4	4112 - Maple, Beech, Cherry Association	High Density Pole	77	Harvest	Single Tree Selection	Maple, Beech, Cherry Association	Cmpt. Review Proposal

Prescription: Thin stand down to 80sqft/ac.

Specs:

Other: acreage and volume might make sale hard to sell. Corners are in for line work. nice firewood sale.

Comments:

Next Steps: regen check 4yrs after harvest.

Steps:

**Total Treatment
Acreage Proposed: 639.3**



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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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Prescription
Specs:

Other
Comment:

Next
Steps:

Limiting Factor and No
Treatment Reason

**Total Treatment
Acreage Proposed: 0**

Stand	Traverse City Mgt. Unit			5 – Forested Stands		Compartment: 174	General Comments:
	Level 4 Cover Type	Size Density	Acres	Inventory Method: IFMAP	Stand Age	BA Range	
1	42310 - Planted Spruce	High Density Pole	1.9	49			could use a thinning. 4-5 stick poles.
2	42310 - Planted Spruce	High Density Pole	7.4	49			could use a row thin. providing thermal cover.
3	4112 - Maple, Beech, Cherry Association	High Density Log	78.6	82	81-110		Thinned in 2006 'Wallace Rd. Hwds'
4	42310 - Planted Spruce	High Density Pole	6.6	49			Stand could use a thinning, providing thermal cover.
6	4112 - Maple, Beech, Cherry Association	High Density Pole	245.3	82	111-140		Decent pole stand. Mostly sugar maple, fairly heavy to pulp. some pockets of logs. Large hill on south line. Most pronounced in the southwest.
8	42310 - Planted Spruce	High Density Pole	5.5	49			could use a row thin. Providing thermal cover to the area.
9	4130 - Aspen	High Density Pole	29.9	88			Nice mature aspen, quite a bit of log volume, 6-7 sticks. Stand is on pretty steep hill with hemlock underneath.
10	42310 - Planted Spruce	High Density Pole	3.5	49			Stand in a small depression. Not worth thinning. Providing thermal cover
11	6118 - Lowland Deciduous with Cedar	High Density Pole	14.0	88			Stand has small perennial drain running through it.
12	4112 - Maple, Beech, Cherry Association	High Density Log	207.8	82	51-80		Thick regen stand was opened up nicely. Stand has bluff as the north boundary.
13	42310 - Planted Spruce	High Density Pole	3.7	49			Stand in small depression, not worth thinning. providing thermal cover
15	4130 - Aspen	High Density Pole	11.1	34			Nice thick aspen, should be ready to cut in 10-20.
16	42310 - Planted Spruce	High Density Pole	7.6	49			Stand could use a row thin
17	42310 - Planted Spruce	High Density Pole	10.0	49			Stand could use a thinning, providing thermal cover
18	4116 - Mixed N. Hardwood - Aspen	Low Density Pole	5.6	33			Stand is an opening filling in.
20	4130 - Aspen	High Density Sapling	14.1	6			aspen is in a bit of a draw. South end of stand isn't regenerating as thick as the north. 10-15' tall. Stand is unit 3 of 'Powerline Aspen'
23	4116 - Mixed N. Hardwood - Aspen	Low Density Pole	7.5	33			opening filling in with Cherry and clones of aspen.



Stand	Traverse City Mgt. Unit			5 – Forested Stands		Compartment: 174	General Comments:
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Year of Entry: 2012	
24	4130 - Aspen	Medium Density Pole	26.8	45			Stand converting to A6. Fairly poor quality, lots of ironwood in the understory. Nice thick clone of bigtooth on south end of stand.
26	4112 - Maple, Beech, Cherry Association	High Density Log	42.2	81	81-110		thinned in 2004 'Pinecrest Hardwoods' some nice pockets of hard maple regen
27	4112 - Maple, Beech, Cherry Association	High Density Log	279.3	82	81-110		Stand thinned in 2006. 'Gasfield Hardwoods' getting some maple regen.
28	4112 - Maple, Beech, Cherry Association	High Density Pole	316.8	79	111-140		Pole stand never been thinned. Heavy to pulp. Some pockets of logs in the south central part of stand
32	4112 - Maple, Beech, Cherry Association	High Density Pole	51.2	84	81-110		thinned in 06 'Besaw Rd. Hardwoods.'
36	6124 - Lowland Spruce-Fir	High Density Pole	14.0	88			
37	6120 - Lowland Cedar	Medium Density Pole	3.6	88			Rapid River corridor
38	6122 - Black Spruce	Low Density Pole	11.7	88			Lots of wind throw. Rapid R. corridor.
39	4130 - Aspen	High Density Sapling	43.1	7			regen 10-15' tall & thick. Softer ground near the river. Some pockets of mature aspen where left for retention. More of a fir componet towards 131. Cut in 2003 'Powerline Aspen'
40	4112 - Maple, Beech, Cherry Association	Low Density Pole	5.8	39			Opening filling in.
41	4112 - Maple, Beech, Cherry Association	High Density Pole	45.9	77	81-110		Stocking is variable, lots of poor quality stems. Most of stand has been thinned in 2004 'Powerline Hwds', except for the middle portion. Stand turns to more of a red maple/balsam fir mix towards the river. Stand has pipeline running through it.
43	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	5.3	89			Rapid river corridor
44	4134 - Aspen, Spruce/Fir	High Density Sapling	7.9	26			Stand converting to A6. Nice mix of balsam fir.
45	4110 - Sugar Maple Association	High Density Pole	5.5	80	111-140		Hwd up on a knoll. Access through stand to the south. Still might be a difficult sale to sell, terrain is rolling.
46	6129 - Mixed Coniferous Lowland Forest	High Density Pole	39.0	81			Stand has Rapid River running through. Dense canopy, lots of thermal cover.
47	4110 - Sugar Maple Association	Medium Density Log	10.3	78	51-80		Stand made up of basswood clumps and maple Stand has Leetsville ORV Trail running through it.



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Traverse City Mgt. Unit

5 – Forested Stands

Compartment: 174
Year of Entry: 2012

Inventory Method: IFMAP

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
48	4110 - Sugar Maple Association	Low Density Log	11.0	77		
49	4110 - Sugar Maple Association	High Density Pole	44.9	78	81-110	Stocking heavy on the west end but becomes less dense to the east. Lots of advanced regen on the east 1/2 of stand.
50	4130 - Aspen	Medium Density	4.0	15		Beaver cuttings have the hill pretty well logged off. Stand is on a bluff.
51	4112 - Maple, Beech, Cherry Association	Medium Density Pole	10.2	76	1-50	Some pockets of aspen. Stand is on bluff above the Rapid R. Lots of advanced regen. Don't want to open stand up, might get ORV use.
52	4112 - Maple, Beech, Cherry Association	Low Density Pole	13.9	31		Stand is an opening filling in. A few decent aspen clones.
54	4130 - Aspen	High Density Pole	1.0	45		cut with adjacent hardwood. Nice popple. a little young but worth cutting while we're in there.
55	4111 - S.Maple, Hard Mast Association	Medium Density Pole	17.7	77	51-80	Stand thinned last year of entry 'North Wheeler Lk. Hwds' in 2005. All aspen was removed so there are quite a few pockets of A3.
56	4112 - Maple, Beech, Cherry Association	High Density Pole	15.4	77	111-140	Stand could use a light thinning. Lots of pulp wood, might be a good negotiated sale.
57	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Pole	18.0	89		Beaver have laid down most of the aspen and flooded out most of the area. Stand is below bluff on north side of the Rapid.
58	4116 - Mixed N. Hardwood - Aspen	High Density Pole	7.8	81	81-110	Stand is on bluff, inaccessible.



Stand	Cover Type	Acres	Gen Cmts:
5	310 - Herbaceous Openland	0.8	
7	310 - Herbaceous Openland	1.6	
14	310 - Herbaceous Openland	1.4	
19	310 - Herbaceous Openland	0.8	
21	310 - Herbaceous Openland	5.3	
22	310 - Herbaceous Openland	0.9	
25	310 - Herbaceous Openland	0.9	
29	310 - Herbaceous Openland	1.0	
30	310 - Herbaceous Openland	0.8	
31	310 - Herbaceous Openland	0.5	
33	310 - Herbaceous Openland	0.8	
34	622 - Lowland Shrub	64.2	
35	310 - Herbaceous Openland	0.8	
42	310 - Herbaceous Openland	6.5	
53	50 - Water	21.2	
59	310 - Herbaceous Openland	2.3	
60	310 - Herbaceous Openland	1.2	



7 – 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.

Inventory Method: IFMAP

Stand	SCA Type	SCA Name	Acres	Comments
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8 – DEDICATED CONSERVATION AREA DETAILS

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

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

Conservation Area	Type	Description
SCA	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.