



Compartment Review Presentation

Gladwin Forest Management Unit

Compartment 73015

Entry Year 2017

Acreage: 4,671

County Clare

Management Area: Upper Muskegon

Revision Date: 2015-06-12

Stand Examiner: Tim Gallagher

Legal Description:

T19N - R06W. Sections: 3 - 10, 16 - 21, 29 & 30.

Identified Planning Goals:

Follow guidelines set forth in the Regional State Forest Management Plan for the Upper Muskegon Management Area. Monitor and address forest health concerns and issues, balance timber age classes, manage for forest sustainability, provide wildlife habitat and provide forest based recreation. Protect archaeological concerns, protect threaten and endangered species.

Soil and topography:

The area varies from well drained Grayling sands in the out-wash plains to poorly drained mucky Lupton-Markey soils as you enter the Muskegon River Floodplain, the Dishwash Creek Corridor, the Giss-I-Was Creek Corridor and the Whiskey Creek Corridor. The terrain varies from nearly level to the steep banks that lead down into the floodplain of the Muskegon River. Giss-I-Was Creek bisects the compartment; the creek is in a valley and there are areas of steep banks leading down into the river valley. The major soil types are Rubicon-Croswell-AuGres associations, Lupton-Markey associations and Grayling sands

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

The state land in this compartment is spread out over 16 sections, the state and private lands are intermixed resulting in miles of private property lines. The state land occurs in large contiguous blocks and isolated government lots along the Muskegon River. Private holdings are mostly comprised of large (40 acres or greater) forested single holdings with absentee landowners. Limited forest management activity occurs on the private holdings. There are numerous permanent residences scattered through out the entire compartment as well. The town of Temple is located directly adjacent to the compartment. The location of this town concentrates use on the land and along the Muskegon River.

Unique Natural Features:

This area has a variety of rare species that could be or are present including; Kirtland Warbler, Slippershell, Elktoe, Round Pigtoe Mussels, Eastern Box Turtle, Goshawk, Bald Eagle, Osprey, Great Blue Heron, Wood Turtle and Blanding's Turtle. There is also potential for Beak Grass, Broad-leafed Puccoon in stands along the Muskegon River. It has been documented by MNFI that high-quality floodplain forests exists within and to the north and south of the compartment all along the Muskegon River

Archeological, Historical, and Cultural Features:

There are three documented sites within the compartment.

Special Management Designations or Considerations:

Two separate areas of the Muskegon River Floodplain have been designated as Ecological Research Area's (ERA). Both areas as "Floodplain Forest's" The north area; Muskegon River/Green Creek North ERA, has a written plan and is surrounded by water (stand 190). The south area; Muskegon River/Huckleberry Trail ERA dose not have a completed plan and is surrounded by water as well (stands 58 & 85). Continue to manage aspen and jack pine stands to maintain a verity of age classes to enhance deer and grouse habitat.

Watershed and Fisheries Considerations:

Dishwash Creek, Giss-I-Was Creek and Whiskey Creek all flow into the Muskegon River within this compartment. All of these water-ways are within the compartment. Dishwash Creek, Giss-I-Was Creek and Whiskey Creek are listed as type 1 trout streams in the 2014 Trout and Salmon Guide and should be treated as cold water fisheries. Giss-I-Was Creek is in a valley and has a natural buffer of lowland brush and marsh directly adjacent to its banks. The Muskegon River, a warm water fishery and a major Michigan watershed has a natural corridor (floodplain) of lowland swamp hardwood along most of the water course and should be considered a sensitive area for timber harvest purposes. Upland/High bank areas along the river should also be considered sensitive. The Muskegon River Floodplain and associated bottomlands are seasonally flooded. There are also many scattered low areas that are seasonally flooded and support populations of waterfowl and

many non-game species.

Wildlife Habitat Considerations:

To be completed by local wildlife biologist.

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 are the Jurassic Red Beds and the Pennsylvanian Saginaw and Grand River formations. The Saginaw Formation is used for clay/shale in other areas of the state. The nearest gravel pit is located three miles to the northeast, and there may be potential within the compartment. All of the State land in Section 7 is currently leased for gas storage and is within the boundary of the Winterfield Field. The southern end of the compartment overlaps the mostly abandoned Freeman-Redding Field. The field has produced over 16 million bbls of oil and nearly 2 Bcf gas since 1938. Most of the compartment is not leased at this time.

Vehicle Access:

Access to most of the compartment is good via the county road system and state two tracks that are in place. There are access limitations to State Land along the Muskegon River.

Survey Needs:

Stand 127 has a survey needed site condition, and is also coded for a treatment.

Recreational Facilities and Opportunities:

No official facilities. The area receives moderate hunting pressure most of which is deer hunters. Light fishing pressure occurs on Dishwash Creek, Giss-I-Was Creek and Whiskey Creek. The Muskegon River receives moderate fishing pressure. Moderate dispersed camping occurs mainly during the firearm deer hunting season. Canoe traffic on the Muskegon River can be heavy on weekends during the summer. A private campground and canoe livery is located directly adjacent (east/central) to the compartment along the Muskegon River on the north side of M-61.

Fire Protection:

A potential fire control problem exists due to the rural /urban interface within this compartment.

Additional Compartment Information:

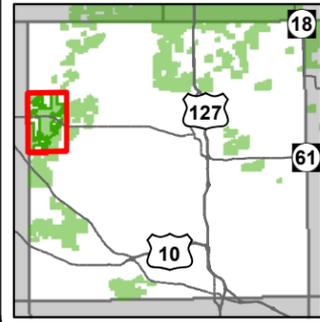
The following reports from the Inventory are attached:

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

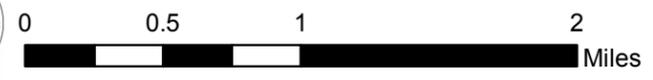
The following information is displayed, where pertinent, on the attached compartment maps:

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

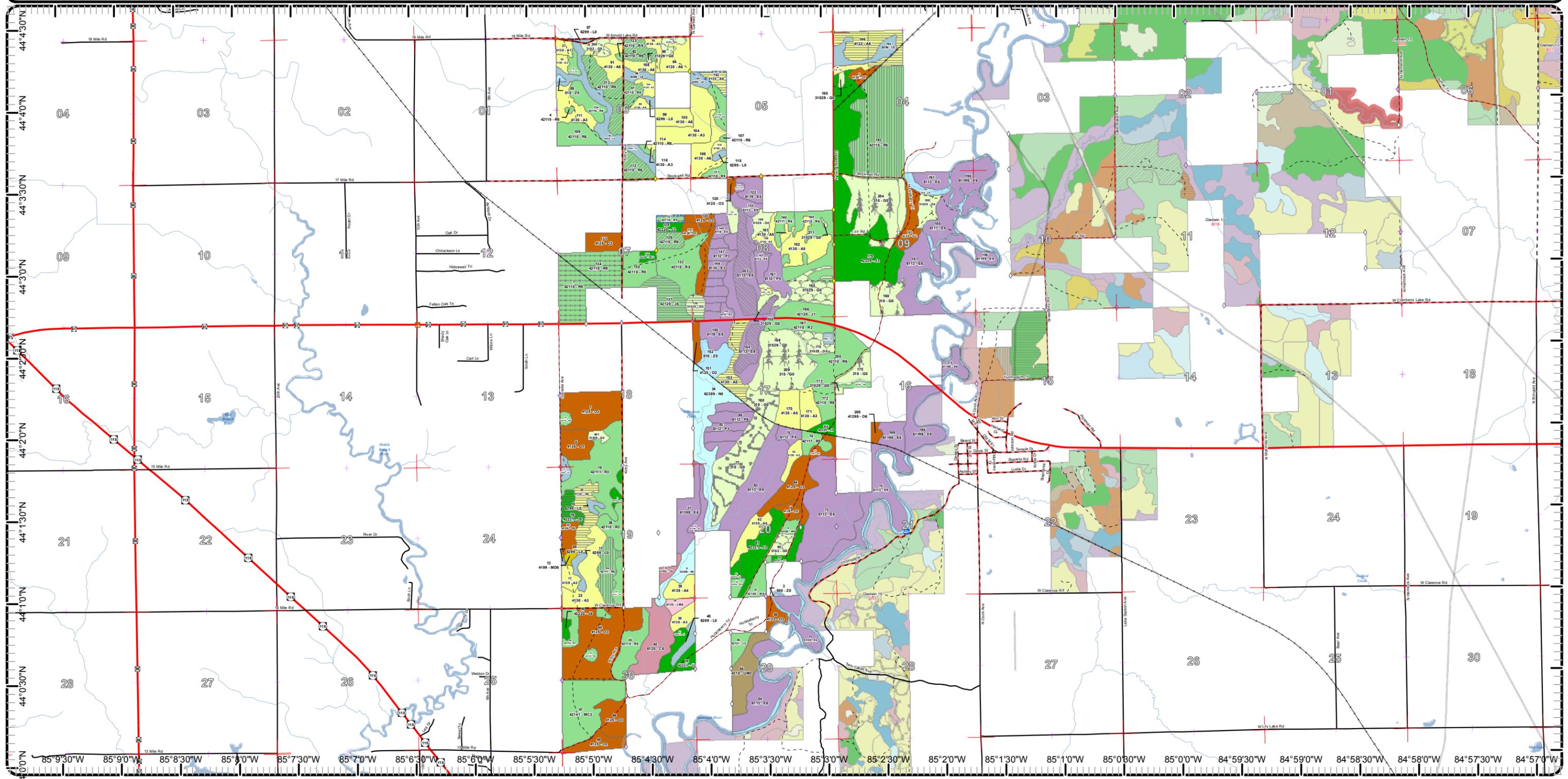
Cover Type & Treatments



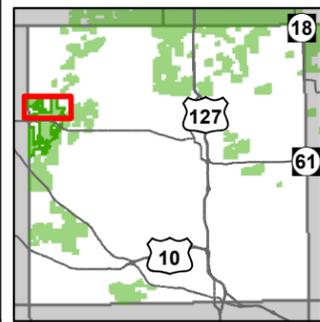
Compartment: 15
 T19N R06W 03-10, 16-21, 29, 30
 County: Clare
 Unit: Gladwin
 Mgmt Area: Upper Muskegon
 YOE: 2017
 Acres: 4671 GIS Calculated
 Examiner: Tim Gallagher
 Map Revised: 6/12/2015
 Map Phase: Pre-Review



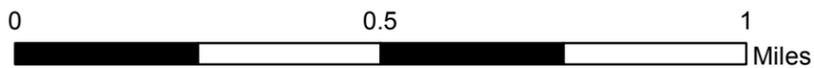
- + Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- ◇ Field Grade GPS Corners
- Miris Corners
- Highway
- County Paved Roads
- County Gravel Roads
- = Gravel Roads
- - Poor Dirt Roads
- - County Poor Dirt Roads
- Boating Access Site
- ▲ Campground
- Railroads
- Rivers
- Lakes
- Pipeline
- Powerline
- Treatments with Site Conditions
- Site Prep
- Clearcut (w/Reserves)
- Planting (tree species)
- Regeneration Survey
- Harvest, Overstory Removal
- Other Harvest - See Comments
- Thinning (Crown, Low, Systematic)
- Shelter Wood (w/Reserves)
- 412 - Oak Types
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 430 - Upland Mixed Fores
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- Non-Forest Covertype**
- 310 - Herbaceous Openland
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland



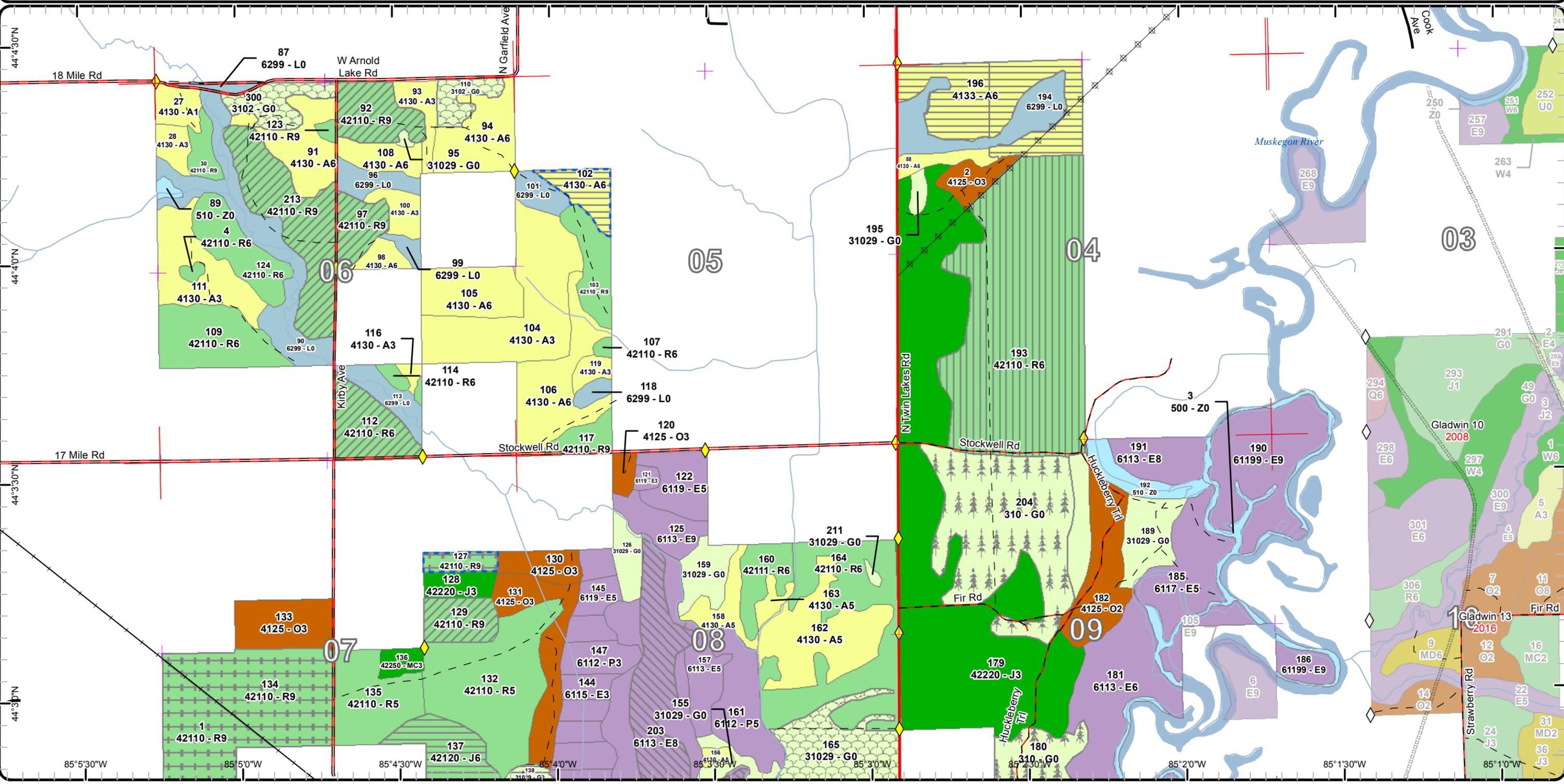
Cover Type & Treatments



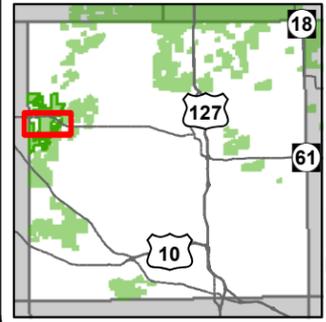
Compartment: 15
 T19N R06W 03-10, 16-21, 29, 30
 County: Clare
 Unit: Gladwin
 Mgmt Area: Upper Muskegon
 YOE: 2017
 Acres: 4671 GIS Calculated
 Examiner: Tim Gallagher
 Map Revised: 6/12/2015
 Map Phase: Pre-Review



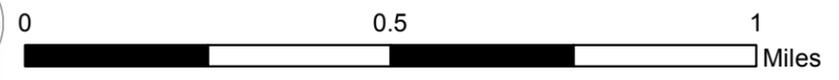
- ✚ Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- ◇ Field Grade GPS Corners
- Miris Corners
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Railroads
- Rivers
- Lakes
- Pipeline
- Powerline
- Treatments with Site Conditions
- Treatments
- Site Prep
- Clearcut (w/Reserves)
- Planting (tree species)
- Harvest, Overstory Removal
- Other Harvest - See Comments
- Thinning (Crown, Low, Systematic)
- Shelter Wood (w/Reserves)
- Forest Covertype
 - 412 - Oak Types
 - 413 - Aspen
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 611 - Lowland Deciduous Forest
- Non-Forest Covertype
 - 310 - Herbaceous Openland
 - 500 - Water
 - 622 - Lowland Shrub



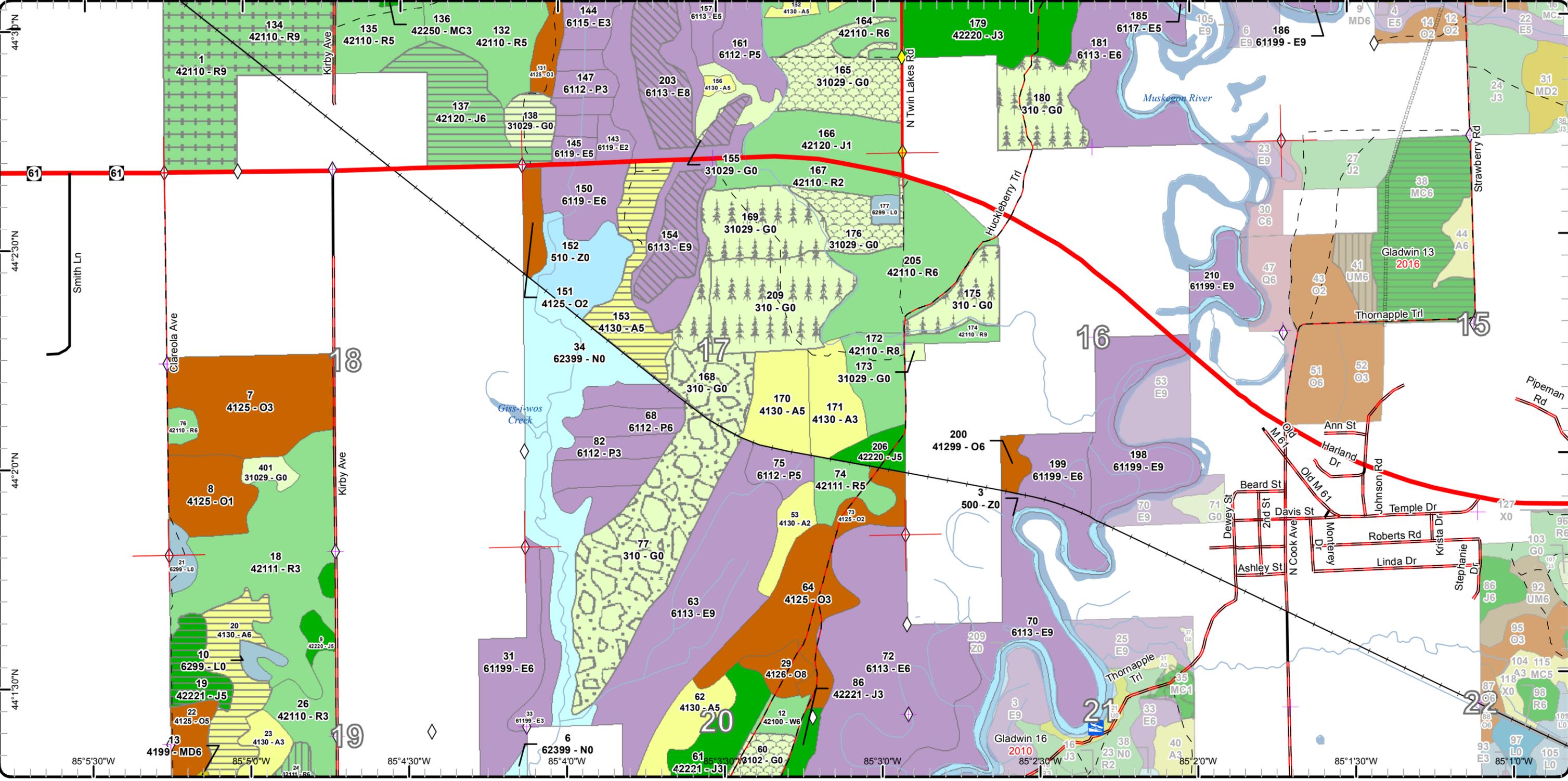
Cover Type & Treatments



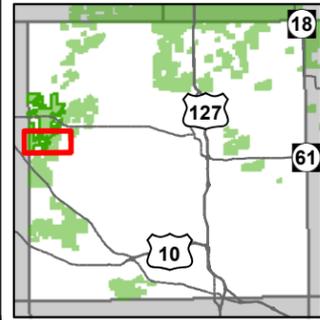
Compartment: 15
 T19N R06W 03-10, 16-21, 29, 30
 County: Clare
 Unit: Gladwin
 Mgmt Area: Upper Muskegon
 YOE: 2017
 Acres: 4671 GIS Calculated
 Examiner: Tim Gallagher
 Map Revised: 6/12/2015
 Map Phase: Pre-Review



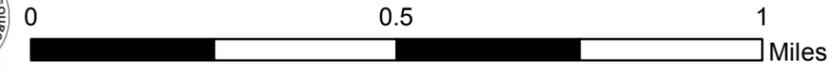
- ✦ Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- ◇ Field Grade GPS Corners
- Miris Corners
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- 🚤 Boating Access Site
- Railroads
- Rivers
- Lakes
- Pipeline
- Treatments
- 🏠 Site Prep
- 🌳 Clearcut (w/Reserves)
- 🌳 Planting (tree species)
- 🌳 Regeneration Survey
- 🌳 Harvest, Overstory Removal
- 🌳 Other Harvest - See Comments
- 🏠 Shelter Wood (w/Reserves)
- Forest Covertype
- 412 - Oak Types
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 611 - Lowland Deciduous Forest
- Non-Forest Covertype
- 310 - Herbaceous Openland
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland



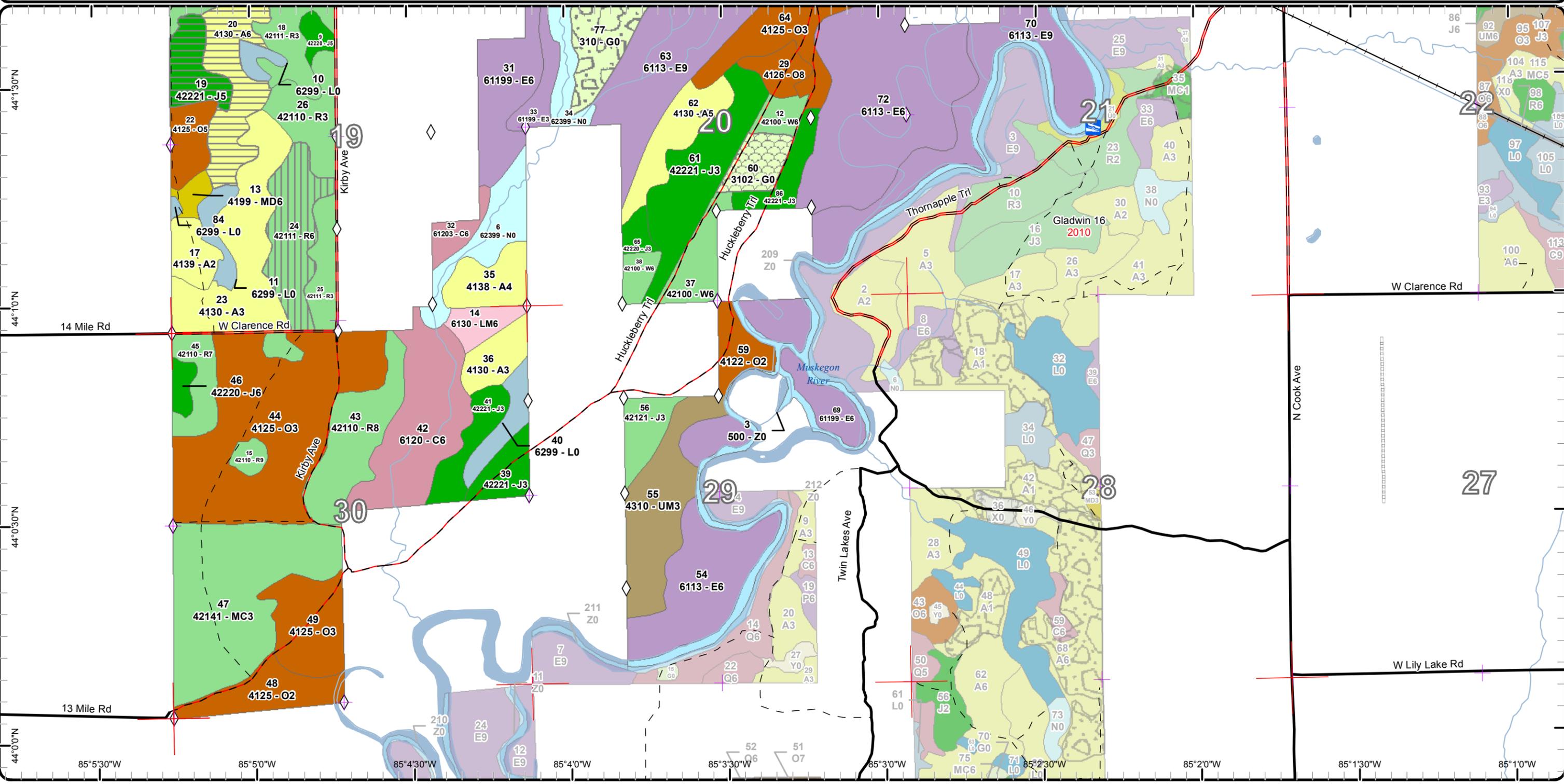
Cover Type & Treatments



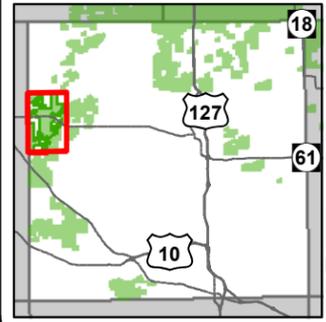
Compartment: 15
 T19N R06W 03-10, 16-21, 29, 30
 County: Clare
 Unit: Gladwin
 Mgmt Area: Upper Muskegon
 YOE: 2017
 Acres: 4671 GIS Calculated
 Examiner: Tim Gallagher
 Map Revised: 6/12/2015
 Map Phase: Pre-Review



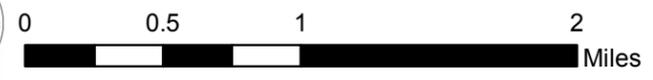
- ✦ Remonumented Section Corners
- ◇ Field Grade GPS Corners
- Miris Corners
- Paved Roads
- County Gravel Roads
- - Poor Dirt Roads
- - County Poor Dirt Roads
- 🚤 Boating Access Site
- Railroads
- Rivers
- Lakes
- Pipeline
- 🏠 Site Prep
- 🌳 Clearcut (w/Reserves)
- 🌳 Regeneration Survey
- 🌳 Shelter Wood (w/Reserves)
- 🌳 Forest Covertypes
 - 🌳 412 - Oak Types
 - 🌳 413 - Aspen
 - 🌳 419 - Mixed Upland Deciduous
 - 🌳 421 - Planted Pines
 - 🌳 422 - Natural Pines
 - 🌳 430 - Upland Mixed Fores
- 🌳 Non-Forest Covertypes
 - 🌳 310 - Herbaceous Openland
 - 🌳 500 - Water
 - 🌳 622 - Lowland Shrub
 - 🌳 623 - Emergent Wetland
- 🌳 611 - Lowland Deciduous Forest
- 🌳 612 - Lowland Coniferous Forest
- 🌳 613 - Lowland Mixed Forest



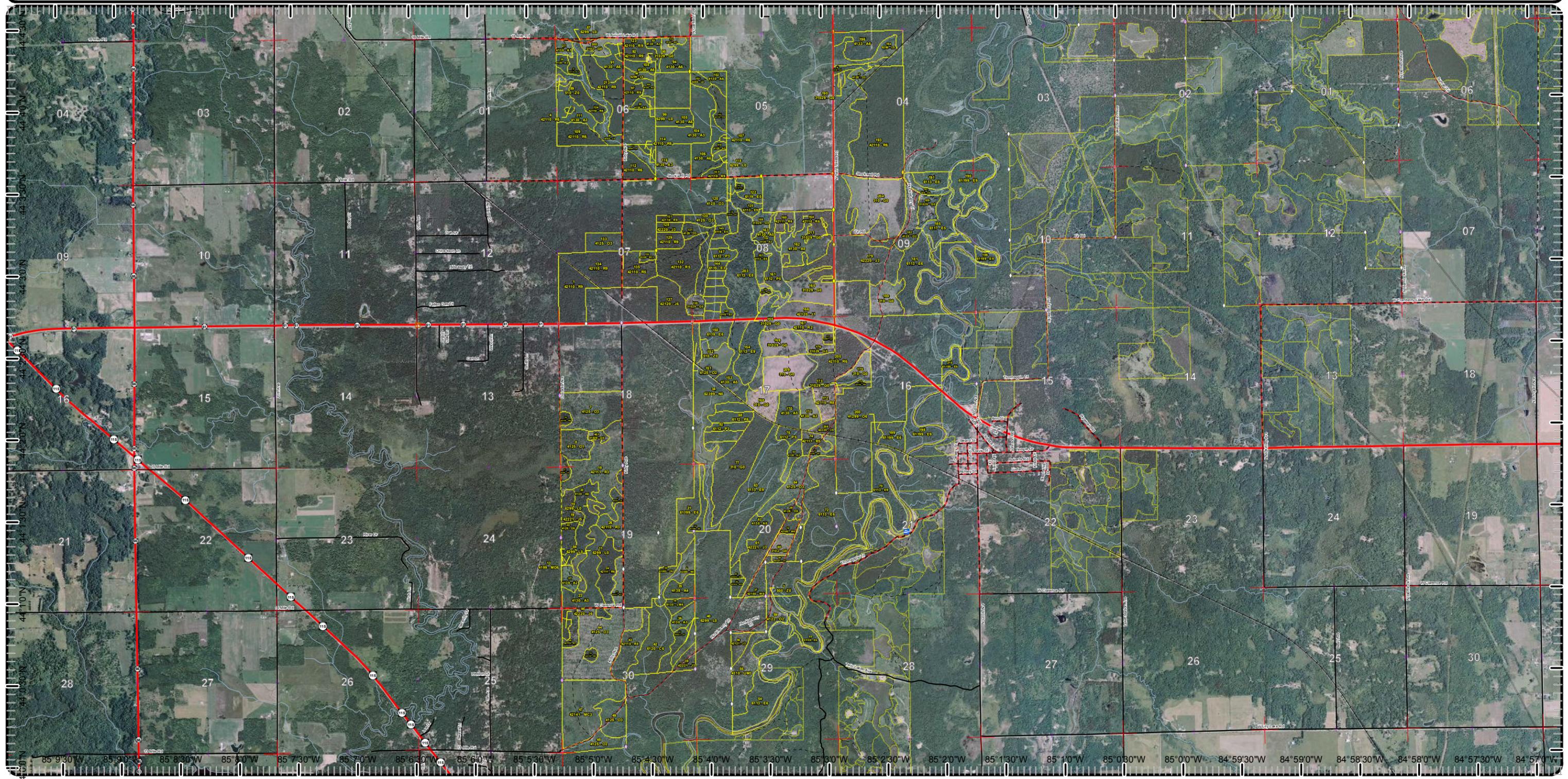
Stand Boundary Map



Compartment: 15
 T19N R06W 03-10, 16-21, 29, 30
 County: Clare
 Unit: Gladwin
 Mgmt Area: Upper Muskegon
 YOE: 2017
 Acres: 4671 GIS Calculated
 Examiner: Tim Gallagher
 Map Revised: 6/12/2015
 Map Phase: Pre-Review

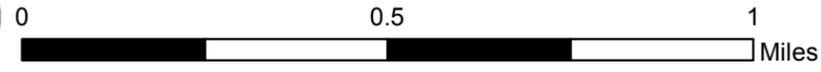
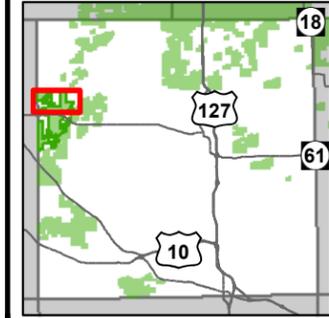


- ✚ Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- ◇ Field Grade GPS Corners
- Miris Corners
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- 🚤 Boating Access Site
- ▲ Campground
- Railroads
- Rivers
- Pipeline
- ⚡ Powerline
- ▭ Stand Boundaries
- Forest Cotype
 - 412 - Oak Types
 - 413 - Aspen
 - 419 - Mixed Upland Deciduous
 - 421 - Planted Pines
 - 422 - Natural Pines
- Non-Forest Cotype
 - 310 - Herbaceous Openland
 - 500 - Water
 - 622 - Lowland Shrub
 - 623 - Emergent Wetland
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

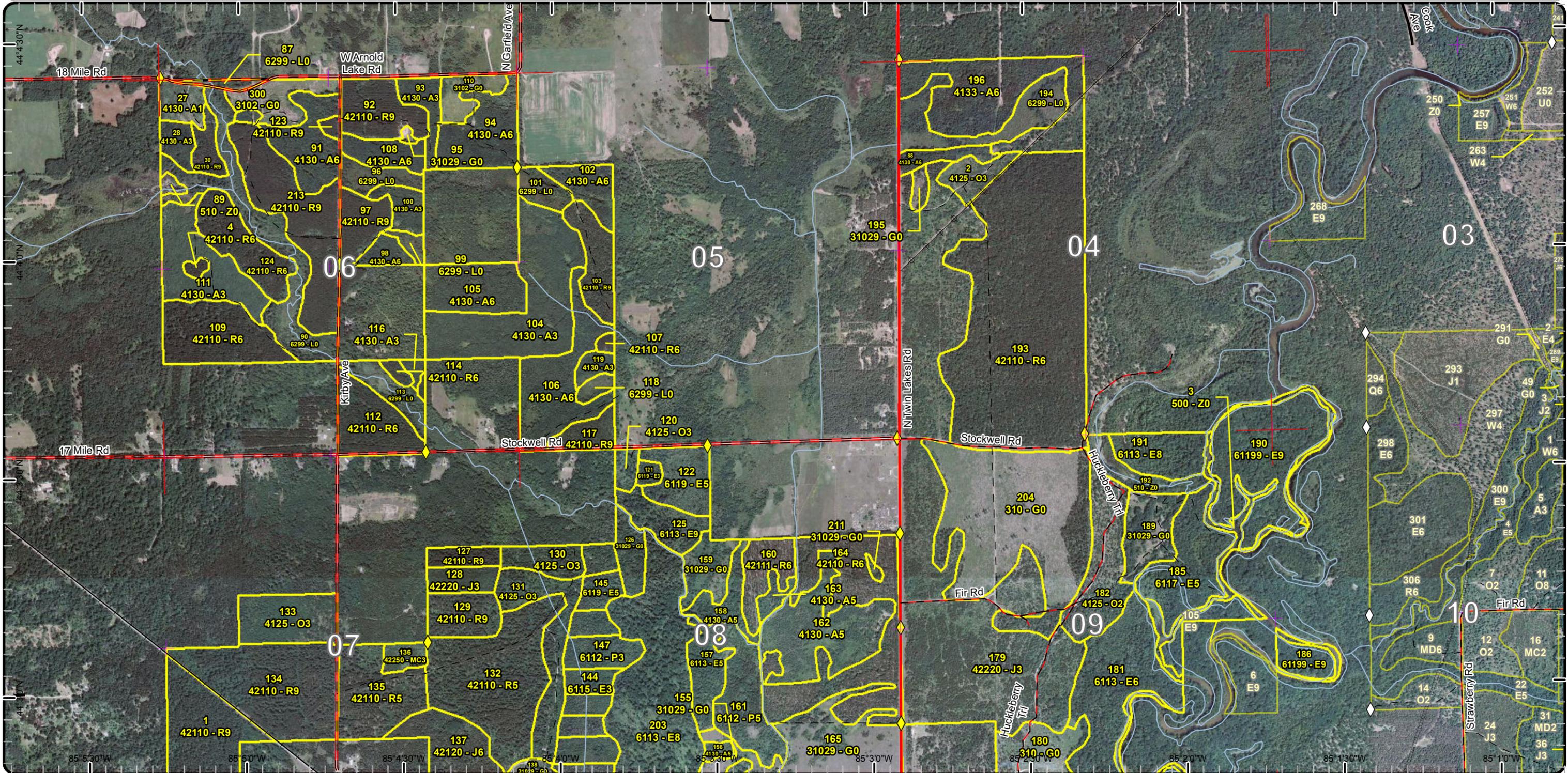


Stand Boundary Map

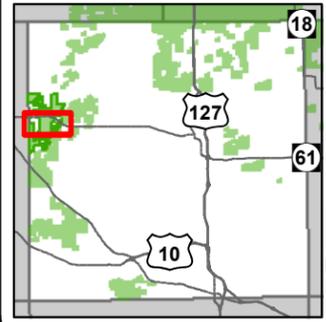
Compartment: 15
 T19N R06W 03-10, 16-21, 29, 30
 County: Clare
 Unit: Gladwin
 Mgmt Area: Upper Muskegon
 YOE: 2017
 Acres: 4671 GIS Calculated
 Examiner: Tim Gallagher
 Map Revised: 6/12/2015
 Map Phase: Pre-Review



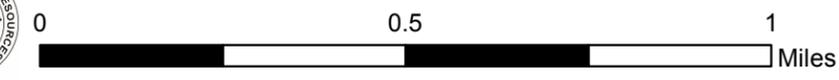
- ✚ Remonumented Section Corners
 - ◆ Survey Grade GPS Corners
 - ◇ Field Grade GPS Corners
 - Miris Corners
 - County Paved Roads
 - Paved Roads
 - County Gravel Roads
 - Gravel Roads
 - Poor Dirt Roads
 - County Poor Dirt Roads
 - Railroads
 - Rivers
 - Pipeline
 - Powerline
 - Stand Boundaries
- Forest Covertype
- 412 - Oak Types
 - 413 - Aspen
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 611 - Lowland Deciduous Forest
- Non-Forest Covertype
- 310 - Herbaceous Openland
 - 500 - Water



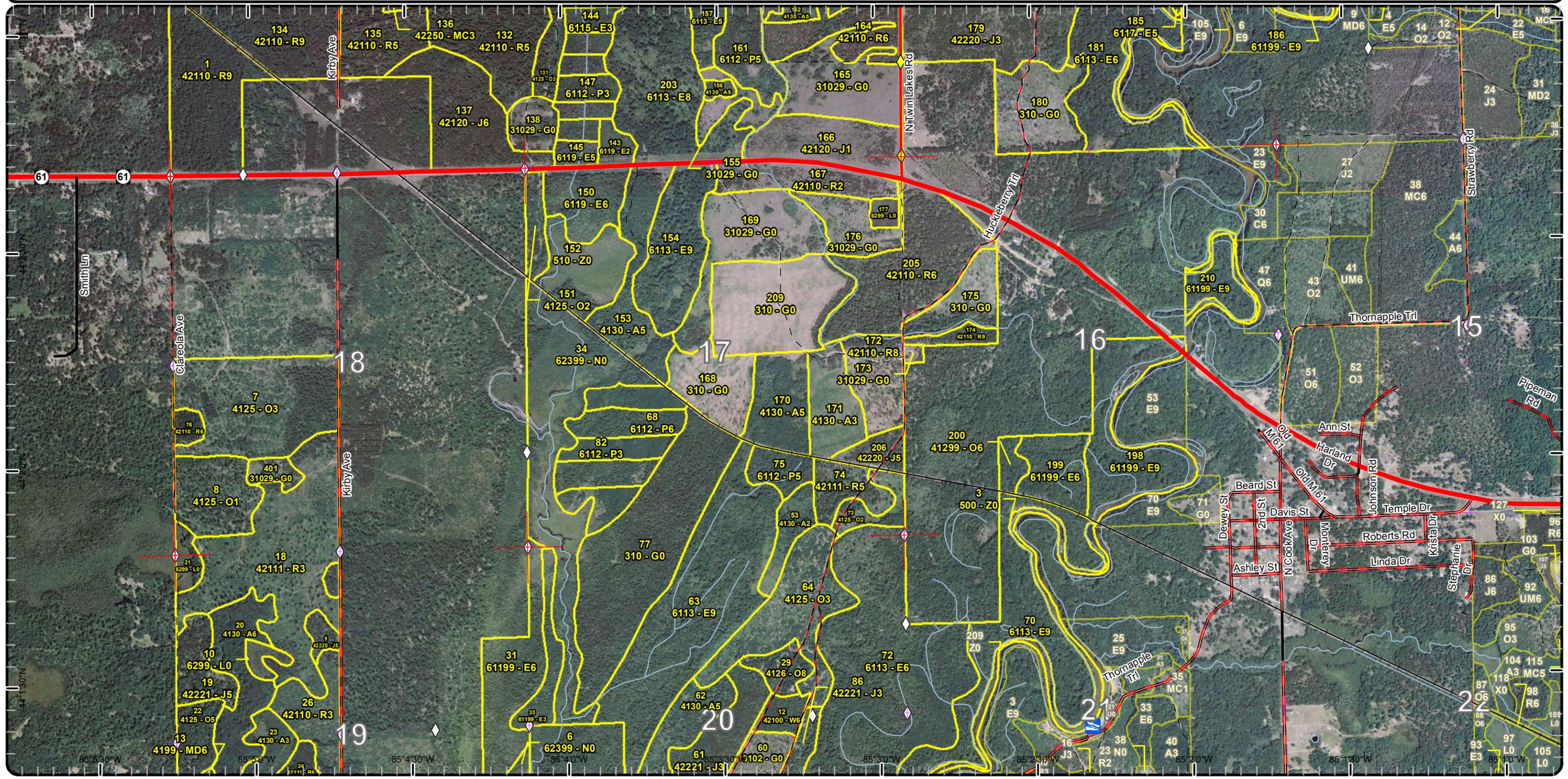
Stand Boundary Map



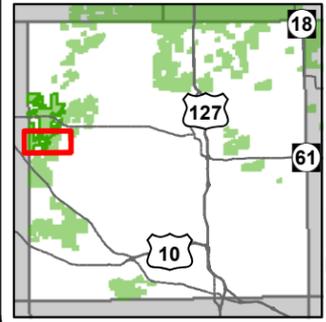
Compartment: 15
 T19N R06W 03-10, 16-21, 29, 30
 County: Clare
 Unit: Gladwin
 Mgmt Area: Upper Muskegon
 YOE: 2017
 Acres: 4671 GIS Calculated
 Examiner: Tim Gallagher
 Map Revised: 6/12/2015
 Map Phase: Pre-Review



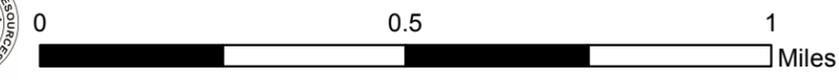
- + Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- ◇ Field Grade GPS Corners
- Miris Corners
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- - Poor Dirt Roads
- County Poor Dirt Roads
- Boating Access Site
- Railroads
- Rivers
- Pipeline
- Stand Boundaries
- Forest Covertypes
 - 412 - Oak Types
 - 413 - Aspen
 - 419 - Mixed Upland Deciduous
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 611 - Lowland Deciduous Forest
- Non-Forest Covertypes
 - 310 - Herbaceous Openland
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland



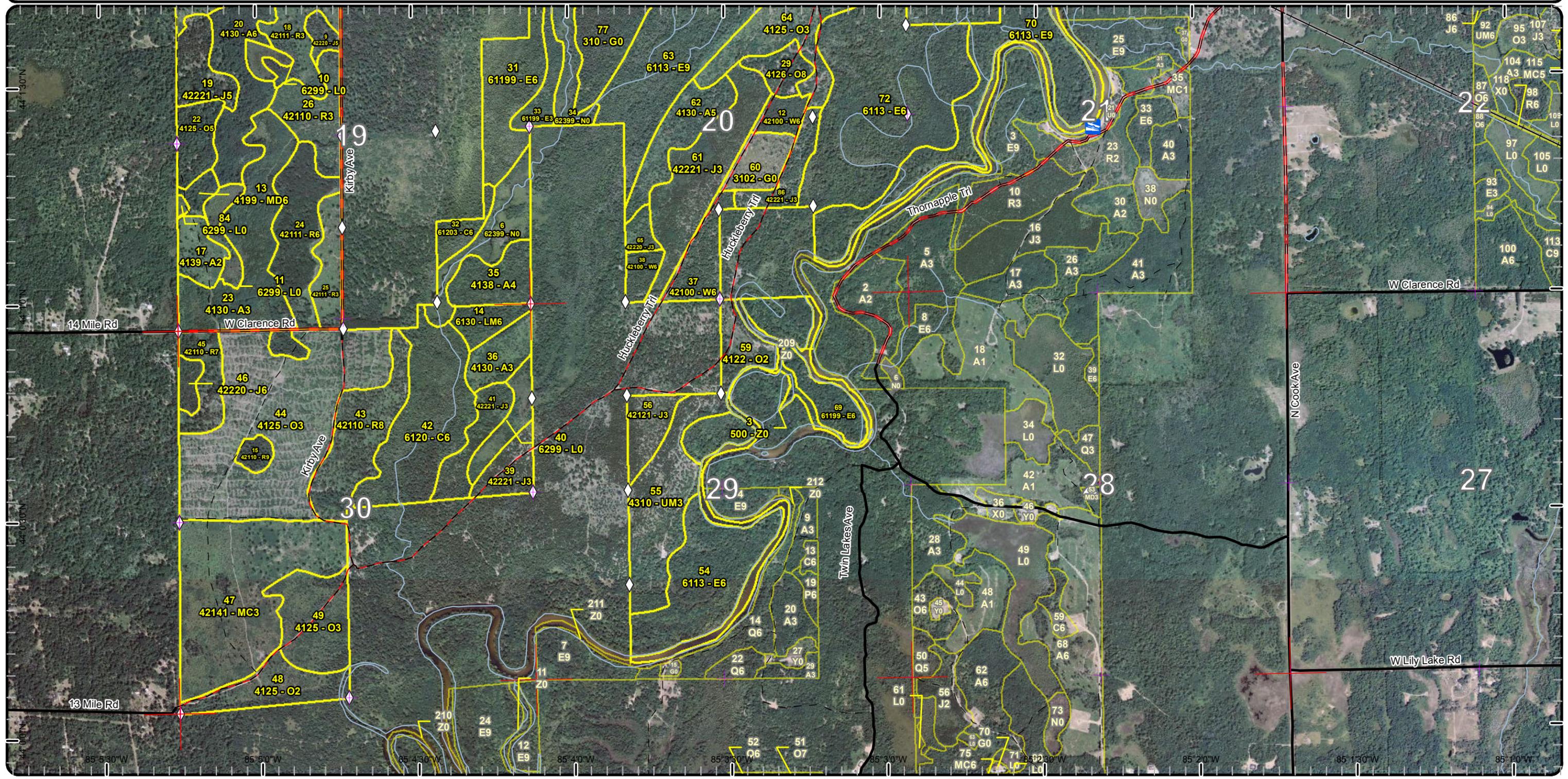
Stand Boundary Map



Compartment: 15
 T19N R06W 03-10, 16-21, 29, 30
 County: Clare
 Unit: Gladwin
 Mgmt Area: Upper Muskegon
 YOE: 2017
 Acres: 4671 GIS Calculated
 Examiner: Tim Gallagher
 Map Revised: 6/12/2015
 Map Phase: Pre-Review

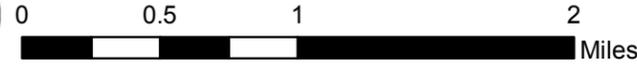
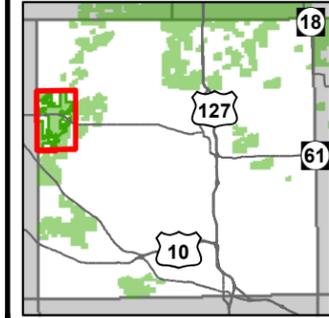


- ✦ Remonumented Section Corners Forest Covertypes
 - ◇ Field Grade GPS Corners
 - Miris Corners
 - Paved Roads
 - County Gravel Roads
 - - Poor Dirt Roads
 - - County Poor Dirt Roads
 - 🚤 Boating Access Site
 - Railroads
 - Rivers
 - Pipeline
 - 🟡 Stand Boundaries
- 412 - Oak Types
 - 413 - Aspen
 - 419 - Mixed Upland Deciduous
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 430 - Upland Mixed Fores
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest
 - 613 - Lowland Mixed Forest
- Non-Forest Covertypes
 - 310 - Herbaceous Openland
 - 500 - Water
 - 622 - Lowland Shrub
 - 623 - Emergent Wetland

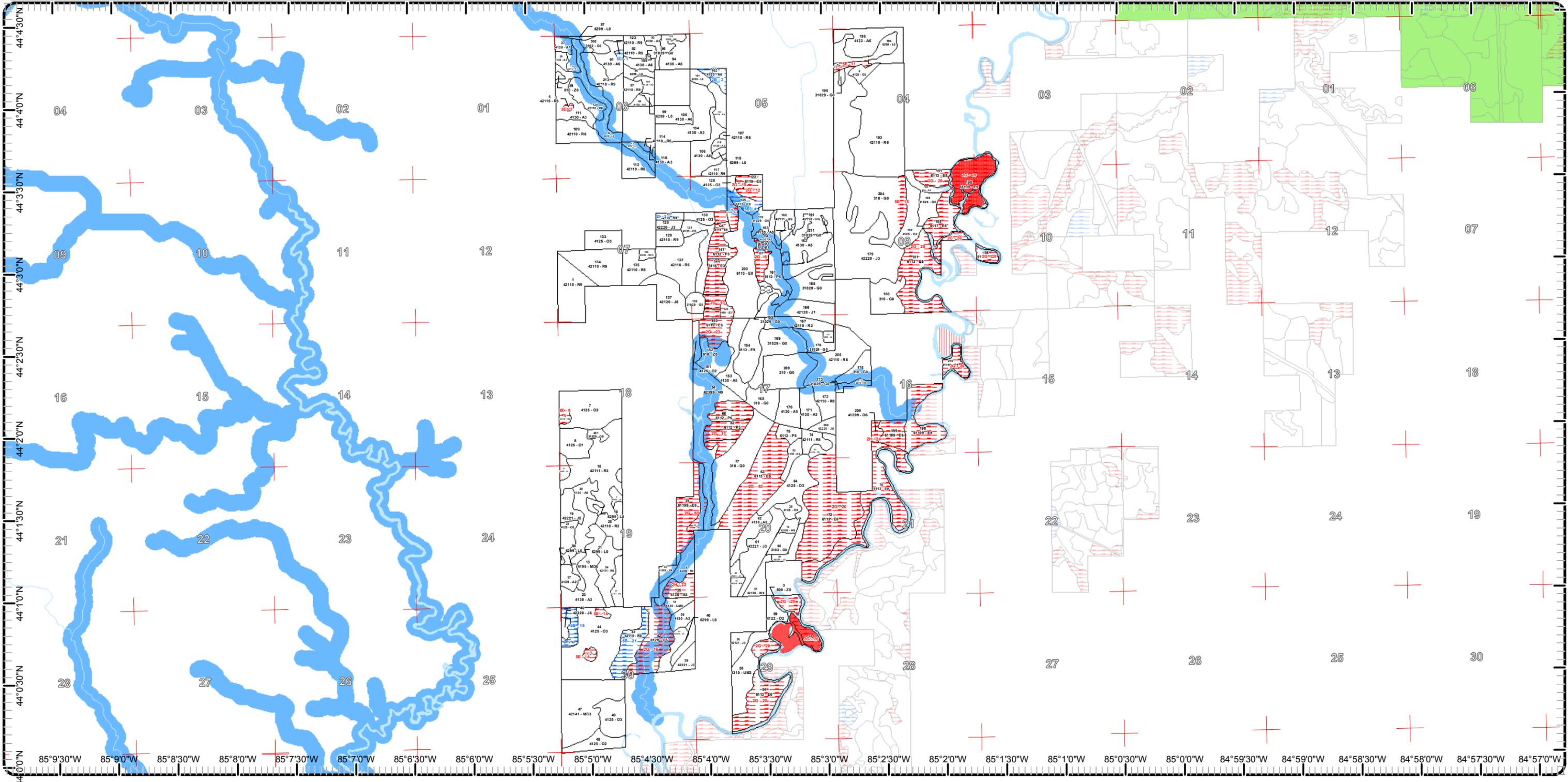


Special Conservation Areas & Site Conditions Map

Compartment: 15
 T19N R06W 03-10, 16-21, 29, 30
 County: Clare
 Unit: Gladwin
 Mgmt Area: Upper Muskegon
 YOE: 2017
 Acres: 4671 GIS Calculated
 Examiner: Tim Gallagher
 Map Revised: 6/12/2015
 Map Phase: Pre-Review

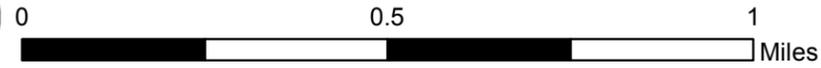
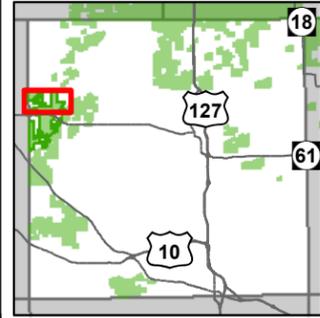


- Miris Corners
- Stand Boundaries
- Site Condition
- Available w/ Constraints
- Unavailable
- Available Factors W/ Constraints
 - 2B: Unknown if access through adjacent landowner(s) is possible
 - 2I: Survey needed
 - 5B: Maintain for regeneration purposes
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- Unavailable Factors
 - 2G: Too wet (sensitive soils, does not include access issues)
 - 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
 - 5E: Long-Term Retention
- Special Conservation Areas
- Ecological Reference Areas
- Kirtland Warbler Habitat
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer

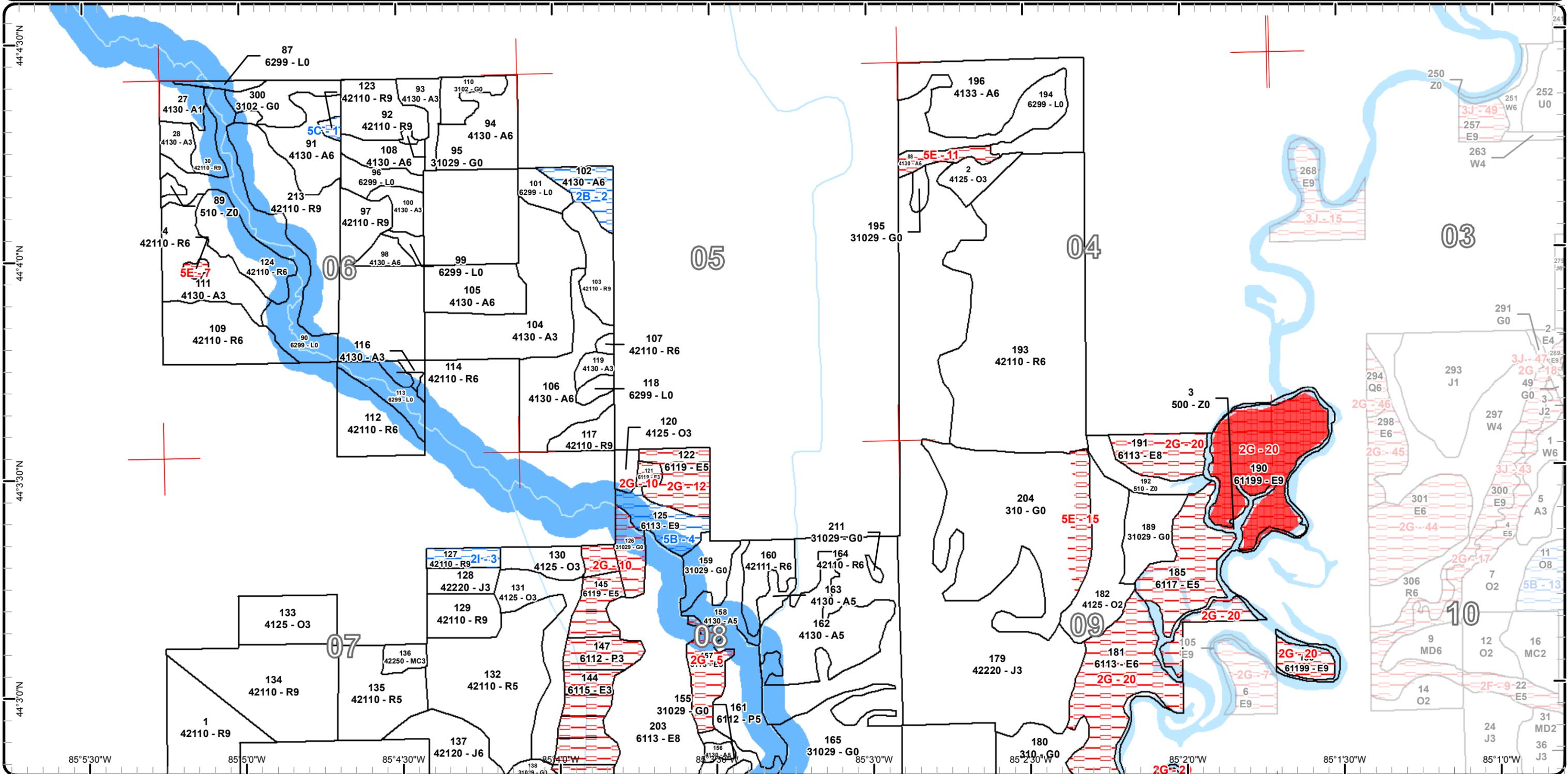


Special Conservation Areas & Site Conditions Map

Compartment: 15
 T19N R06W 03-10, 16-21, 29, 30
 County: Clare
 Unit: Gladwin
 Mgmt Area: Upper Muskegon
 YOE: 2017
 Acres: 4671 GIS Calculated
 Examiner: Tim Gallagher
 Map Revised: 6/12/2015
 Map Phase: Pre-Review

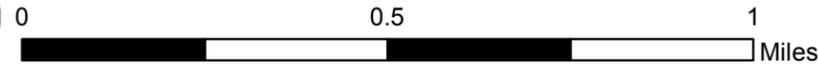
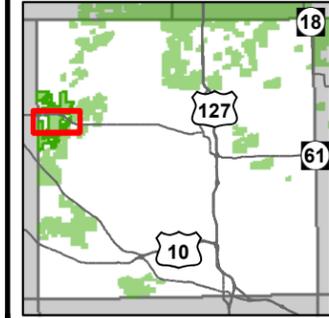


- Miris Corners
- Stand Boundaries
- Site Condition
- Available w/ Constraints
- Unavailable
- Available Factors W/ Constraints
 - 2B: Unknown if access through adjacent landowner(s) is possible
 - 2I: Survey needed
 - 5B: Maintain for regeneration purposes
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- Unavailable Factors
 - 2G: Too wet (sensitive soils, does not include access issues)
 - 5E: Long-Term Retention Special Conservation Areas
- Ecological Reference Areas
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer

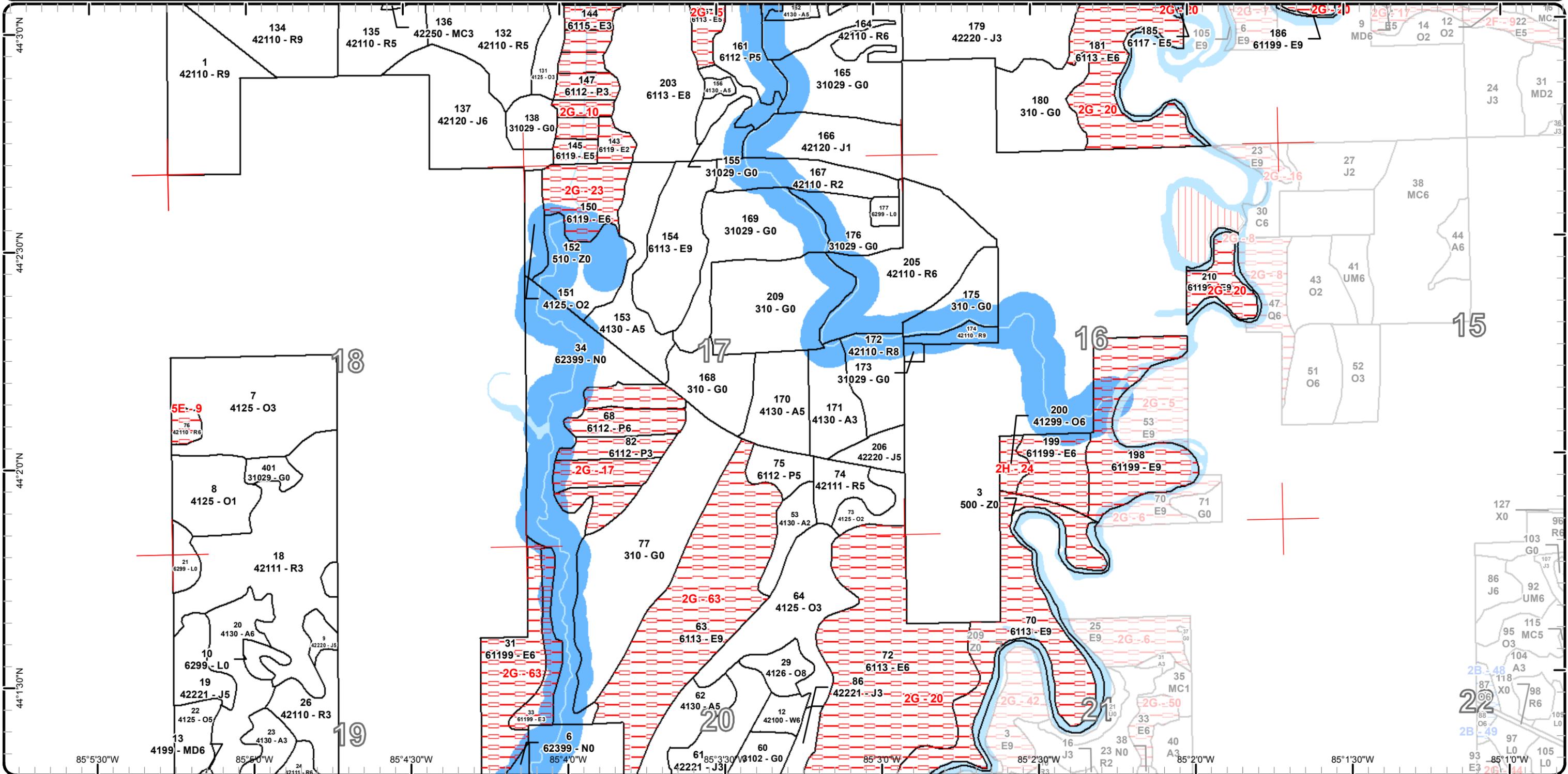


Special Conservation Areas & Site Conditions Map

Compartment: 15
 T19N R06W 03-10, 16-21, 29, 30
 County: Clare
 Unit: Gladwin
 Mgmt Area: Upper Muskegon
 YOE: 2017
 Acres: 4671 GIS Calculated
 Examiner: Tim Gallagher
 Map Revised: 6/12/2015
 Map Phase: Pre-Review

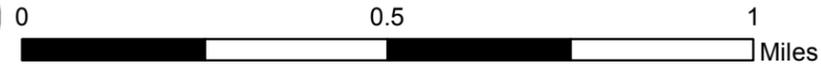
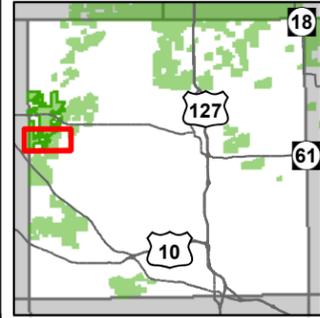


- Miris Corners
- Stand Boundaries
- Site Condition
- - - Unavailable
- Unavailable Factors
- 2G: Too wet (sensitive soils, does not include access issues)
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 5E: Long-Term Retention
- Special Conservation Areas
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer

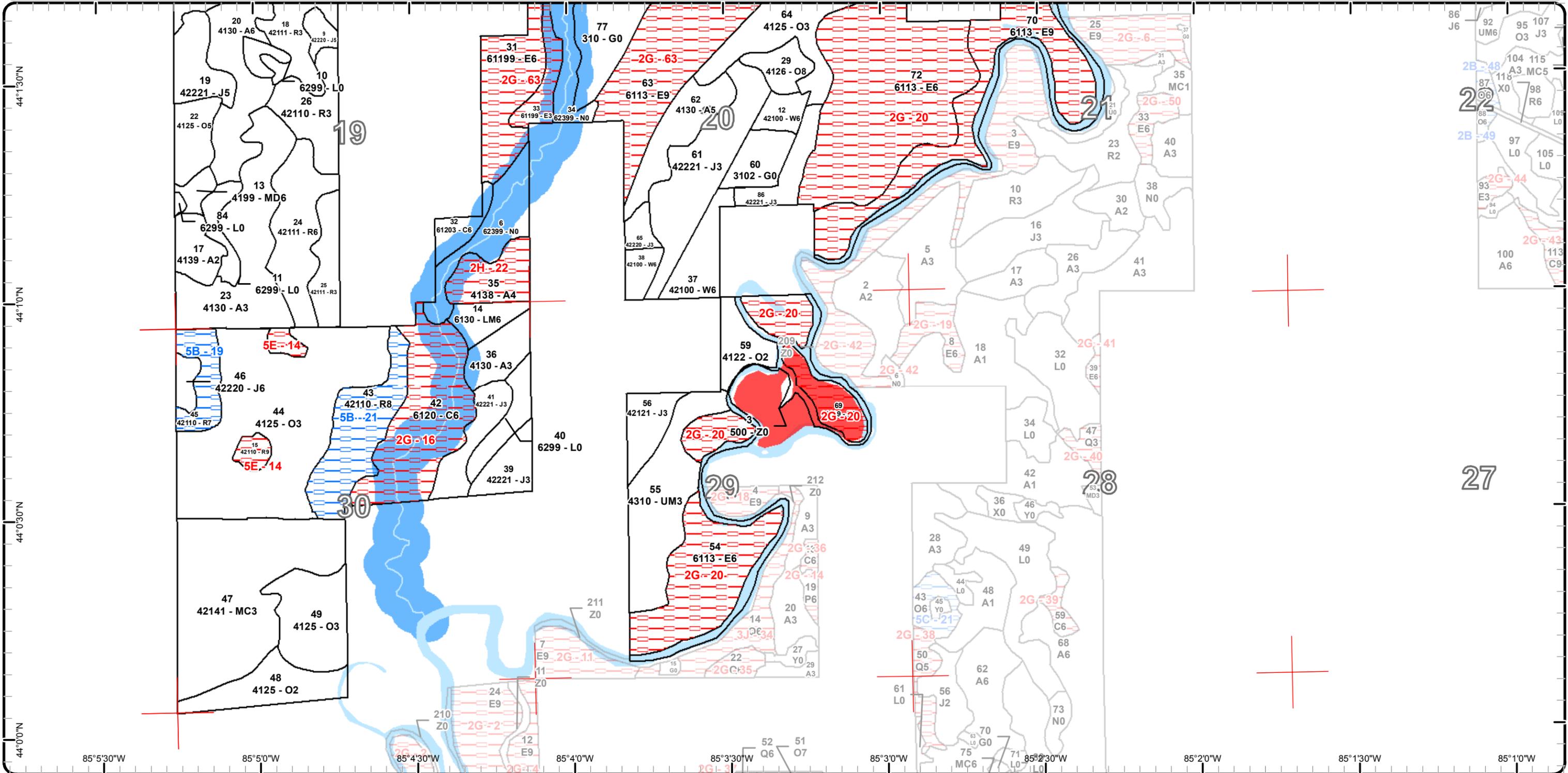


Special Conservation Areas & Site Conditions Map

Compartment: 15
 T19N R06W 03-10, 16-21, 29, 30
 County: Clare
 Unit: Gladwin
 Mgmt Area: Upper Muskegon
 YOE: 2017
 Acres: 4671 GIS Calculated
 Examiner: Tim Gallagher
 Map Revised: 6/12/2015
 Map Phase: Pre-Review



- Miris Corners
- Stand Boundaries
- Site Condition
- Available w/ Constraints
- Unavailable
- Available Factors W/ Constraints
- 5B: Maintain for regeneration purposes
- Unavailable Factors
- 2G: Too wet (sensitive soils, does not include access issues)
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 5E: Long-Term Retention
- Special Conservation Areas
- Ecological Reference Areas
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer



Report 1 – Total Acres by Cover Type and Age Class

Gladwin Mgt. Unit

Compartment 15

Year of Entry 2017

Tim Gallagher : Examiner



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	54	95	84	142	129	101	0	0	0	0	0	0	0	0	0	0	0	605
Cedar	0	0	0	0	0	0	0	0	0	56	0	0	0	8	0	0	0	0	64
Herbaceous Openland	522	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	522
Jack Pine	0	0	261	79	0	76	5	0	0	0	0	0	0	0	0	0	0	0	421
Lowland Aspen/Balsam Poplar	0	0	0	30	26	35	0	0	26	0	0	0	0	0	0	0	0	0	117
Lowland Deciduous	0	0	0	35	2	0	17	0	132	57	139	60	134	118	0	0	0	260	954
Lowland Mixed Forest	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	10
Lowland Shrub	134	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	134
Marsh	108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	108
Mixed Upland Deciduous	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
Natural Mixed Pines	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Oak	0	76	181	182	0	14	0	0	10	6	0	0	0	0	0	0	0	0	469
Planted Mixed Pines	0	88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88
Red Pine	0	104	22	24	0	0	2	646	123	59	0	0	0	0	0	0	0	0	980
Upland Mixed Forest	0	0	0	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
Water	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	115
White Pine	0	0	0	0	0	0	31	0	0	0	0	0	0	0	0	0	0	0	31
Total	879	322	564	478	170	259	156	646	301	178	139	60	134	126	0	0	0	260	4672



Report 2 – Treatment Summary

Gladwin Mgt. Unit

Year of Entry: 2017

Acres of Harvest

Compartment 15

Total Compartment Acres: 4,671

Commercial Harvest - 0
 Harvests with Site Condition - 18
 Next Step Harvest - 0
 Habitat Cut - 437

Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen	104	0	0	0	0	0	0	0	0	104
Herbaceous Openland	11	0	0	0	0	0	0	0	0	11
Jack Pine	60	0	0	0	0	0	0	0	0	60
Lowland Deciduous	0	0	0	0	0	0	0	0	72	72
Oak	24	0	0	0	0	0	0	0	0	24
Red Pine	0	0	0	0	192	112	111	0	0	415
Total	199	0	0	0	192	112	111	0	72	686

Proposed and Next Step Treatments by Harvest Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	686	91	232	0	0	0	114	0	0	1123
Next Step	0	399	208	0	0	0	1142	0	0	1750
Total	686	490	441	0	0	0	1256	0	0	2872



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
1	73015001-Cut	52.8	42110 - Planted Red Pine	Sawtimber Well	78	111- 140	Harvest	Overstory Removal	4129 - Mixed Oak	Even-Aged	Proposal

Habitat Cut: No**Site Condition:**

Prescription Remove over story red pine and manage for oak understory that is in place. To meet retention guidelines leave three uncut islands approximately
Specs: two acres each. Place the uncut islands to address visual concerns.

Next Step
Treatments:

Acceptable Natural mixed oak.
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

19	73015019-Cut	16.6	42221 - Natural Jack Pine, Mixed Deciduous	Poletimber Medium	40	81-110	Harvest	Clearcut with Retention	4122 - Oak, Pine	Even-Aged	Proposal
----	--------------	------	--	----------------------	----	--------	---------	----------------------------	------------------	-----------	----------

Habitat Cut: No**Site Condition:**

Prescription Final harvest with reserves 2" spec. to release oak understory that is in place. To meet retention guidelines leave scattered un-cut islands and
Specs: mark to leave some oak.

Next Step
Treatments:

Acceptable A mix of natural regeneration, mixed oak and pine.
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

20	73015020-Cut	33.4	4130 - Aspen	Poletimber Well	48	1-50	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Proposal
----	--------------	------	--------------	--------------------	----	------	---------	----------------------------	-------------	-----------	----------

Habitat Cut: No**Site Condition:**

Prescription Clearcut with retention. Manage for natural aspen regeneration with mixed hardwood. To meet retention guidelines mark to leave scattered
Specs: mature oak and leave uncut islands.

Next Step
Treatments:

Acceptable Natural aspen regeneration with mixed hardwood.
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

24	73015024-Cut	32.5	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	61	201+	Harvest	Shelterwood	4129 - Mixed Oak	Two-Aged	Proposal
----	--------------	------	---	--------------------	----	------	---------	-------------	---------------------	----------	----------

Habitat Cut: No**Site Condition:**

Prescription Shelterwood to establish a mix of natural regeneration. Mark to leave 50 - 60 BA/AC of red pine. Leave all mixed hardwood. Residual red pine
Specs: should be evenly distributed/spaced. The residual red pine will act as Shelterwood to establish oak/mixed natural regeneration.

Next Step
Treatments:

Acceptable A mix of natural regeneration. Oak, jack pine, red pine and mixed hardwood.
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
60	73015060- Prep	13.3	3102 - Grass	Nonstocked	0	Unspec ified	SitePrep	Trenching	4211 - Planted Red Pine	Even-Aged	Proposal

Habitat Cut: Yes**Site Condition:**Prescription Trench and plant red pine.Specs:Next Step Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)Treatments:Acceptable A mix of planted red pine, natural mixed oak and natural jack pine.Regen:Other Old next step comments:Comment:Proposed Start Date: 10/1 /2016

77	73015077- Monitor	88.9	310 - Herbaceous Openland	Nonstocked	0	Unspec ified	Monitoring	Natural Regen (Intermediate)	42498 - Red Pine (OI)	Even-Aged	Draft Field Boundary
----	----------------------	------	------------------------------	------------	---	-----------------	------------	---------------------------------	--------------------------	-----------	-------------------------

Habitat Cut: Yes**Site Condition:**PrescriptionSpecs:Next StepTreatments:Acceptable A mix of red pine, jack pine, red maple and oak would be acceptable natural regeneration.Regen:Other Percent to Treat = 100% Old next step comments:Comment:Proposed Start Date: 6 /1 /2019

92	73015092-Cut	18.9	42110 - Planted Red Pine	Sawtimber Well	60	171- 200	Harvest	Crown Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
----	--------------	------	-----------------------------	-------------------	----	-------------	---------	----------------	----------------------------	-----------	----------

Habitat Cut: No**Site Condition:**Prescription Crown thinning. Reduce red pine residual down to 120 BA/ACSpecs:Next StepTreatments:AcceptableRegen:Other Old next step comments:Comment:Proposed Start Date: 10/1 /2016

97	73015097-Cut	12.5	42110 - Planted Red Pine	Sawtimber Well	60	141- 170	Harvest	Crown Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
----	--------------	------	-----------------------------	-------------------	----	-------------	---------	----------------	----------------------------	-----------	----------

Habitat Cut: No**Site Condition:**Prescription Crown Thinning. Individual tree mark reducing residual BA/AC down to 120.Specs:Next StepTreatments:AcceptableRegen:Other Old next step comments:Comment:Proposed Start Date: 10/1 /2016



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
102	73015102-Cut	11.2	4130 - Aspen	Poletimber Well	59	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Proposal

Habitat Cut: No **Site Condition: Unknown Access**

Prescription Clear cut with retention 2" spec. Manage for a mix of natural hardwood regeneration of aspen, red maple, oak and birch. Retention, concentrate on a mix of representative species along L type and red pine stand.

Specs:

Next Step

Treatments:

Acceptable A mix of natural regeneration; aspen, red maple, oak, and birch.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

112	73015112-Cut	22.1	42110 - Planted Red Pine	Poletimber Well	60	141- 170	Harvest	Crown Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
-----	--------------	------	-----------------------------	--------------------	----	-------------	---------	----------------	----------------------------	-----------	----------

Habitat Cut: No **Site Condition:**

Prescription Crown Thinning. Individual tree mark reducing residual BA/AC down to 120.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

127	73015127-Cut	6.4	42110 - Planted Red Pine	Sawtimber Well	68	111- 140	Harvest	Overstory Removal	412 - Oak Types	Even-Aged	Proposal
-----	--------------	-----	-----------------------------	-------------------	----	-------------	---------	----------------------	-----------------	-----------	----------

Habitat Cut: No **Site Condition: Survey Needed**

Prescription Remove red pine over-story and convert to oak. Apply retention by leaving scattered red pine in all DBH classes.

Specs:

Next Step

Treatments:

Acceptable Natural oak regeneration. Oak under-story is in place.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

129	73015129-Cut	14.3	42110 - Planted Red Pine	Sawtimber Well	79	141- 170	Harvest	Crown Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
-----	--------------	------	-----------------------------	-------------------	----	-------------	---------	----------------	----------------------------	-----------	----------

Habitat Cut: No **Site Condition:**

Prescription Thin to 110' residual BA/AC.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
-----------------------	----------------	-------	-----------------	--------------	-----------	----------	----------------	------------------	----------------------	---------------	-----------------

134	73015134-Cut	51.6	42110 - Planted Red Pine	Sawtimber Well	79	81-110	Harvest	Overstory Removal	4129 - Mixed Oak	Even-Aged	Proposal
-----	--------------	------	--------------------------	----------------	----	--------	---------	-------------------	------------------	-----------	----------

Habitat Cut: No **Site Condition:**

Prescription Remove over story red pine and manage for oak understory that is in place. To meet retention guidelines leave three uncut islands approximately two acres each. Place the uncut islands to address visual concerns.

Next Step
Treatments:

Acceptable Natural oak regeneration.
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

137	73015137-Cut	43.1	42120 - Planted Jack Pine	Poletimber Well	47	51-80	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Proposal
-----	--------------	------	---------------------------	-----------------	----	-------	---------	-------------------------	-------------------------	-----------	----------

Habitat Cut: No **Site Condition:**

Prescription Final harvest with reserves 2" spec. To meet retention guidelines leave scattered un-cut islands and leave all red pine. Following harvest trench and plant red pine. Herbicide to control hardwood competition if needed.

Next Step SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); SitePrep, Other - Specify
Treatments:

Acceptable Planted red pine with a mix of natural mixed oak.
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

138	73015138-Cut	11.1	31029 - Grass (OI)	Nonstocked		Unspec ified	Harvest	Clearcut with Retention	42110 - Planted Red Pine	Even-Aged	Proposal
-----	--------------	------	--------------------	------------	--	--------------	---------	-------------------------	--------------------------	-----------	----------

Habitat Cut: No **Site Condition:**

Prescription Treat with stand 137. Final harvest with reserves. Followed by trenching and planting red pine. Herbicide to control hardwood competition if needed.

Next Step SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); SitePrep, Other - Specify
Treatments:

Acceptable A mix of planted red pine and mixed hardwood is acceptable.
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

153	73015153-Cut	32.8	4130 - Aspen	Poletimber Medium	50	51-80	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Proposal
-----	--------------	------	--------------	-------------------	----	-------	---------	-------------------------	-------------	-----------	----------

Habitat Cut: No **Site Condition:**

Prescription Final harvest with reserves 2" spec. to regenerate aspen. Possible to restrict to dormant season due to quality of aspen and ground conditions.
Specs: To meet retention guidelines leave scattered un-cut islands and mark to leave some white pine and oak.

Next Step
Treatments:

Acceptable A mix of natural regeneration, aspen, red maple, mixed hardwood.
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
154	73015154.7_C ut	21.3	6113 - Lowland Maple	Sawtimber Well	121	51-80	Harvest	Other - Specify	6113 - Lowland Maple	Unspecified	Field Boundary

Habitat Cut: No **Site Condition:**

Prescription As part of the Departments Ash Harvest/Salvage Initiative this stand has identified to salvage/harvest all the ash from the stand ahead of the
Specs: Emerald Ash Borer.

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Proposed Start Date: 4 /19/2013

165	73015165- Prep	36.6	31029 - Grass (OI)	Nonstocked		Unspec ified	SitePrep	Other - Specify	42110 - Planted Red Pine	Even-Aged	Proposal
-----	-------------------	------	--------------------	------------	--	-----------------	----------	-----------------	-----------------------------	-----------	----------

Habitat Cut: Yes **Site Condition:**

Prescription Control / eliminate Autumn Olive, could include herbicide / roller chop etc.. Trench and plant red pine.
Specs:

Next Step SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(3yr); SitePrep, Other - Specify
Treatments:

Acceptable Planted red pine.
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

168	73015168- Monitor	24.9	310 - Herbaceous Openland	Nonstocked	0	Unspec ified	Monitoring	Natural Regen (Intermediate)	4131 - Aspen, Oak	Even-Aged	Proposal
-----	----------------------	------	------------------------------	------------	---	-----------------	------------	---------------------------------	----------------------	-----------	----------

Habitat Cut: Yes **Site Condition:**

Prescription Monitor natural regeneration until desired stocking is met.
Specs:

Next Step
Treatments:

Acceptable A mix of natural regeneration of oak, aspen, jack pine and red maple.
Regen:

Other Clear cut 2014. Old next step comments:
Comment:

Proposed Start Date: 10/1 /2017

169	73015169- Plant	44.0	31029 - Grass (OI)	Nonstocked		Unspec ified	Planting	Initial Plant	42110 - Planted Red Pine	Even-Aged	Proposal
-----	--------------------	------	--------------------	------------	--	-----------------	----------	---------------	-----------------------------	-----------	----------

Habitat Cut: Yes **Site Condition:**

Prescription Trench and plant red pine. Herbicide to control hardwood competition if needed.
Specs:

Next Step Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); SitePrep, Other - Specify; Planting, Initial Plant
Treatments:

Acceptable Planted red pine.
Regen:

Other Trenched summer 2014. Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
175	73015175- Plant	19.1	310 - Herbaceous Openland	Nonstocked	0	Unspec ified	Planting	Initial Plant	4211 - Planted Red Pine	Even-Aged	Approved Proposal

Habitat Cut: Yes**Site Condition:**

Prescription Trench and plant red pine. Herbicide to control hardwood competition if needed.

Specs:

Next Step Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); SitePrep, Other - Specify; Planting, Initial Plant

Treatments:

Acceptable Planted red pine, mixed with natural regeneration of mixed oak and jack pine.

Regen:

Other Clear cut 2013. Trenched summer of 2014. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

176	73015176- Prep	18.2	31029 - Grass (OI)	Nonstocked		Unspec ified	SitePrep	Trenching	42110 - Planted Red Pine	Even-Aged	Proposal
-----	-------------------	------	--------------------	------------	--	-----------------	----------	-----------	-----------------------------	-----------	----------

Habitat Cut: Yes**Site Condition:**

Prescription Trench and plant red pine. Control hardwood competition if needed. Could include herbicide treatment.

Specs:

Next Step Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); SitePrep, Other - Specify

Treatments:

Acceptable planted red pine.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

180	73015180- Plant	32.7	310 - Herbaceous Openland	Nonstocked	0	Unspec ified	Planting	Initial Plant	41299 - Oak (OI)	Even-Aged	Field Boundary
-----	--------------------	------	------------------------------	------------	---	-----------------	----------	---------------	------------------	-----------	----------------

Habitat Cut: Yes**Site Condition:**

Prescription Inter plant red pine to maintain full stocking. Herbicide to control hardwood competition if needed.

Specs:

Next Step Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)

Treatments:

Acceptable A mix of natural mixed oak regeneration and inter planted red pine.

Regen:

Other Final harvest 2013. Huckleberry Trail Harvest 73-029-10-01. Old next step comments:

Comment:

Proposed Start Date: 4 /11/2015

193	73015193-Cut	159.8	42110 - Planted Red Pine	Poletimber Well	66	141- 170	Harvest	Shelterwood	4126 - White, Black, N. Pin Oak	Even-Aged	Proposal
-----	--------------	-------	-----------------------------	--------------------	----	-------------	---------	-------------	---------------------------------------	-----------	----------

Habitat Cut: No**Site Condition:**

Prescription Shelterwood to establish a mix of natural regeneration. Mark to leave 50 - 60 BA/AC of red pine. Leave some scattered oak and all white pine.

Specs: Residual red pine should be evenly distributed/spaced. The residual red pine will act as Shelterwood to establish oak/mixed natural regeneration.

Next StepTreatments:

Acceptable A mix of natural mixed oak regeneration.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
2	73015196.1_C ut	23.9	4125 - Black, N. Pin Oak	Sapling Well	13	Immature	Harvest	Clearcut	4138 - Aspen (OI)	Unspecified	Completed - Pending Edits

Habitat Cut: No **Site Condition:**

Prescription OPIC - FMD: Final harvest 2" spec manage for aspen regeneration. Stand is expected to regenerate to aspen. Scattered low wet areas within stand. Adjacent stand 108 (L type) meanders all around this stand. Apply retention around stand 108.
Specs:

Next Step
Treatments:

Acceptable
Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

196	73015196-Cut	27.0	4133 - Aspen, Mixed Pine	Poletimber Well	53	51-80	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Approved Proposal
-----	--------------	------	-----------------------------	--------------------	----	-------	---------	----------------------------	-------------	-----------	----------------------

Habitat Cut: No **Site Condition:**

Prescription Final harvest 2" spec manage for aspen regeneration. Stand is expected to regenerate to aspen. Scattered low wet areas within stand. Adjacent stand 108 (L type) meanders all around this stand. Apply retention around stand 108.
Specs:

Next Step
Treatments:

Acceptable A mix of natural regeneration aspen, red maple, mixed oak and mixed pine.
Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

203	73015203.3_C ut	50.6	6113 - Lowland Maple	Sawtimber Medium	117	51-80	Harvest	Other - Specify	6113 - Lowland Maple	Unspecified	Field Boundary
-----	--------------------	------	-------------------------	---------------------	-----	-------	---------	-----------------	-------------------------	-------------	----------------

Habitat Cut: No **Site Condition:**

Prescription As part of the Departments Ash Harvest/Salvage Initiative this stand has identified to salvage/harvest all the ash from the stand ahead of the Emerald Ash Borer.
Specs:

Next Step
Treatments:

Acceptable
Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 4 /19/2013

204	73015204- Plant	85.1	310 - Herbaceous Openland	Nonstocked	0	Unspec ified	Planting	Interplant	42498 - Red Pine (OI)	Even-Aged	Field Boundary
-----	--------------------	------	------------------------------	------------	---	-----------------	----------	------------	--------------------------	-----------	----------------

Habitat Cut: Yes **Site Condition:**

Prescription Trench and plant red pine.
Specs:

Next Step Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); SitePrep, Other - Specify
Treatments:

Acceptable Planted red pine with natural mixed oak regeneration mixed in as well.
Regen:

Other Final harvest 2013. Old next step comments:

Comment:

Proposed Start Date: 4 /11/2015



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
209	73015209- Plant	51.6	310 - Herbaceous Openland	Nonstocked	0	Unspec ified	Planting	Initial Plant	4211 - Planted Red Pine	Even-Aged	Proposal

Habitat Cut: Yes**Site Condition:**

Prescription Trench and plant red pine. Herbicide to control hardwood competition if needed.

Specs:

Next Step Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); SitePrep, Other - Specify
Treatments:

Acceptable Planted red pine with natural mixed oak and jack pine regeneration mixed in as well.

Regen:

Other Clear cut 2014. Trenched summer 2014. Old next step comments:

Comment:

Proposed Start Date: 4 /9 /2015

213	73015213-Cut	44.0	42110 - Planted Red Pine	Sawtimber Well	60	171- 200	Harvest	Crown Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
-----	--------------	------	-----------------------------	-------------------	----	-------------	---------	----------------	----------------------------	-----------	----------

Habitat Cut: No**Site Condition:**

Prescription Thin. Individual tree mark reducing residual BA/AC down to 120.

Specs:

Next Step
Treatments:

Acceptable
Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

300	73015300- Prep	22.6	3102 - Grass	Nonstocked	0	Unspec ified	SitePrep	Trenching	4211 - Planted Red Pine	Even-Aged	Proposal
-----	-------------------	------	--------------	------------	---	-----------------	----------	-----------	----------------------------	-----------	----------

Habitat Cut: Yes**Site Condition:**

Prescription Trench and interplant red pine.

Specs:

Next Step Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); Planting, Initial Plant
Treatments:

Acceptable A mix of planted red pine and natural hardwood regen.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2015

**Total Treatment
Acreage Proposed: 1122.8**

Report 5 – Site Conditions

Gladwin Mgt. Unit
Tim Gallagher : Examiner

Compartment: 15
Year of Entry: 2017

Dominant Site Conditions

	2G	2H	2I	5B	5C	5E
Aspen		18				6
Cedar	56					
Herbaceous Openland	9					11
Jack Pine						
Lowland Aspen/Balsam Poplar	82					
Lowland Deciduous	803			14		
Lowland Mixed Forest						
Lowland Shrub						
Marsh						
Mixed Upland Deciduous						
Natural Mixed Pines						
Oak		6				
Planted Mixed Pines						
Red Pine			6	51	2	14
Upland Mixed Forest						
Water	2					
White Pine						
Total Forested Acres	952	24	6	64	2	32
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	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Manage with stand 91.							

Report 5 – Site Conditions

Gladwin Mgt. Unit
Tim Gallagher : Examiner

Compartment: 15
Year of Entry: 2017

2	Available	2B: Unknown if access through adjacent landowner(s) is possible	11	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
3	Available	2I: Survey needed	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Available	5B: Maintain for regeneration purposes	14	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	14	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
9	Unavailable	5E: Long-Term Retention	4	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
10	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	79	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 5 – Site Conditions

Gladwin Mgt. Unit
Tim Gallagher : Examiner

Compartment: 15
Year of Entry: 2017

11	Unavailable	5E: Long-Term Retention	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
12	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	17	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
14	Unavailable	5E: Long-Term Retention	8	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
15	Unavailable	5E: Long-Term Retention	11	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
16	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	56	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							
17	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	56	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							
19	Available	5B: Maintain for regeneration purposes	15	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 5 – Site Conditions

Gladwin Mgt. Unit
Tim Gallagher : Examiner

Compartment: 15
Year of Entry: 2017

20	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	554	2F: Too steep	3J: Water quality / BMPs (stream, river, or lake)	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	Unspecified
Comments: In the Muskegon River floodplain. Mucky soils, seasonally stand has standing water.							
21	Available	5B: Maintain for regeneration purposes	36	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
22	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	18	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
23	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	23	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
24	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
63	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	153	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							

Mgt. Unit

Compartment: #Type!

Year of Entry:



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

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

SCA Name	SCA Category	Detail Type	Recommendation	Acres
----------	--------------	-------------	----------------	-------

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	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.
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of natural communities that have been identified as Element Occurrences (EOs) by the Michigan Natural Features Inventory (MNFI) within the context of their natural community classification system. Element Occurrences with viability ranks of A (Excellent) or B (Good) and a Global (G) or State (S) element (rarity) ranking of endangered (1), threatened (2), or rare (3) serve as an initial base of ERAs. They may be located upon any ownership in the State. The system is comprised of individual or associations of natural community types that are managed for restoration and maintenance of natural ecological processes and values. The public may submit recommendations for lands as ERAs using the DNR Conservation Area Recommendation Form.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42110 - Planted Red Pine	Sawtimber Well	52.8	78	111-140	Red pine and jack pine planted in 1937. All jack pine and oak removed in 1998. Thinned again 2009. High quality red pine. Red pine BA/AC 123. Very dense well established oak understory 10' tall and 1 inch DBH. 16' - 18' DBH red pine within stand. Close trail into stand off M-61.
2	4125 - Black, N. Pin Oak	Sapling Well	9.0	13	Immature	Final harvest 2002. Mix of natural regeneration.
4	42110 - Planted Red Pine	Poletimber Well	1.6	59	111-140	Left un-cut when stand 111 was harvest. Retention pocket.
7	4125 - Black, N. Pin Oak	Sapling Well	65.9	15	Immature	Red pine and jack pine planted in 1937. All jack pine and oak removed in 1998. Dense O3 understory has resulted from partial harvest in 1998. All red pine cut in spring of 2011, Clareola Red Pine, 73-012-07-01
8	4125 - Black, N. Pin Oak	Sapling Poor	27.3	10	1-50	Partial harvest 2009 residual oak reduced down to 10 - 20 sq. ft. to stimulate oak regeneration. A mix of natural regeneration of mixed oak, red maple and jack pine is coming along. Do not remove over story at this time. Over story is not worth removing. Oak understory is doing very well.
9	42220 - Natural Jack Pine	Poletimber Medium	6.9	49	51-80	Could harvest this year of entry. Left when adjacent timber was harvested. Hold 10 years till stand 18 gets established 10 more years.
12	42100 - Planted White Pine	Poletimber Well	7.5	56	111-140	White pine planted in 1959. Scattered jack pine and oak. 15% - 20% weevil damage.
13	4199 - Other Mixed Upland Deciduous	Poletimber Well	4.8	48	81-110	Red maple understory 30' to 35' tall. Stand was thinned in 1967. The stand is between two "L" types. Scattered white pine and red pine saw logs. Hold and evaluate next year of entry. Lots of harvesting in this area recently and maple under story will become more established. Converting to red maple poles under scattered mature oak (O7).
14	6130 - Fir, Aspen, Maple	Poletimber Well	9.7	70	51-80	To wet to harvest. Stand is a drain. Cut to the north and south.
15	42110 - Planted Red Pine	Sawtimber Well	8.3	81	81-110	Red pine and jack pine planted in 1937. All jack pine and oak removed in 1991. Dense O3 understory has resulted from partial harvest in 1991. Long term retention from stand 44. When Kirby Pine 73-016-09-01 was cut.
17	4139 - Aspen, Mixed Deciduous	Sapling Medium	11.7	3	Immature	Clearcut spring 2012, scattered white pine left. Huckleberry Trail 73-004-07-01.
18	42111 - Planted Red Pine, Mixed Deciduous	Sapling Well	89.1	5	Immature	Final harvest 2009. FTP C73-830 submitted. Planted to red pine 5/2010, FTP C73-830.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
19	42221 - Natural Jack Pine, Mixed Deciduous	Poletimber Medium	16.6	40	81-110	Inclusion of "L" pocket at south end of stand. Semi open areas. Pole sized jack pine with mature mixed oak. Oak understory is in place.
20	4130 - Aspen	Poletimber Well	33.4	48	1-50	Clearcut in 1967. Residual hardwood from 1967 cut. Hold 10 years, overall the size of the timber is a little small.
22	4125 - Black, N. Pin Oak	Poletimber Medium	13.6	48	51-80	Stand was thinned in 1967. A very dense mixed understory has resulted from the harvest. The understory is reaching pole size. Overstory is naturally falling apart. Manage for understory - overstory very poor and is a natural supply of coarse woody debris.
23	4130 - Aspen	Sapling Well	53.6	15	Immature	Final harvest 2000 - Good natural mix of regeneration - A3/ A3-O1-J1-Mr1.
24	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	32.5	61	201+	Red pine under planted in 1956. Density varies. Rows are hard to follow. Mixed oak growing in stand has very large crowns. No way to harvest the oak without damaging the pine. 15% oak mortality. Lots of harvesting in this area in the past 10 years, possible to hold in order to give some time for the adjacent harvests to mature a bit. This is a plantation however, there is no way to row thin as rows are very hard to follow, small openings etc. Has not been thinned. Red pine BA/AC 180 - 190. Hardwood BA/AC 10 - 20.
25	42111 - Planted Red Pine, Mixed Deciduous	Sapling Well	14.4	2	Immature	Clearcut spring 2012 Huckleberry Trail 73-004-07-01. FTP C73-828 submitted trench and plant red pine. Tim Gallagher 3/3/2014: red pine planted 4/26/2013. FTP C73-828.
26	42110 - Planted Red Pine	Sapling Well	21.6	15	Immature	Final harvest 2000. Replanted to red pine. Mix of O1 and J1 mixed in as well. FTP # C73-667 - replanted / fill in with red pine 5/17/2007.
27	4130 - Aspen	Sapling Poor	7.9	4	Immature	Clear cut 2011. Decent mix of natural regeneration. OPIC - FMD: Final harvest 2" spec manage for aspen regeneration. Scattered low areas harvest on dry or frozen ground to prevent rutting on heavy soils. Apply retention along L type along Dishwash Creek and leaving scattered super canopy oak and white pine. Visual management should be considered, home directly adjacent to stand. A mix of aspen, maple and oak regeneration is expected. Tim Gallagher 08/18/2014: Clear cut 2011 Whiskey River Pine 73-005-10-01
28	4130 - Aspen	Sapling Well	6.1	24	Immature	OPIC - FMD: Clearcut in 1991, heavy aspen regeneration.
29	4126 - White, Black, N. Pin Oak	Sawtimber Medium	9.8	70	51-80	Small pocket of oak that was left when surrounding stands were cut. Several deer camps in the stand. Big tree management in an area that has been harvested. (mast, coarse woody debris, diversity, wildlife, camp area, seed)



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
30	42110 - Planted Red Pine	Sawtimber Well	6.7	60	111-140	Thinned in 2012. Decent red pine good access and strait rows. Crowns not closed from past thinning. Wait 10 yrs. and thin. OPIC - FMD: Third row thinned 5/9/2000. Reduce BA/AC to 120 by individual tree marking. Tim Gallagher 08/18/2014: Thinned 2012 Whiskey River Pine 73-005-10-01
31	61199 - Lowland Hardwood (OI)	Poletimber Well	36.6	95	51-80	Low wet site, mucky soils. Adjacent to Giss-I-Was Creek, down over a steep bank.
32	61203 - Cedar (OI)	Poletimber Well	7.8	121	171-200	Cedar and balsam fir.
33	61199 - Lowland Hardwood (OI)	Sapling Well	13.5	27	Immature	Habitat cut in 1988.
35	4138 - Aspen (OI)	Poletimber Poor	18.0	48	1-50	Habitat cut in 1967. Access concerns with this stand. A few semi open areas.
36	4130 - Aspen	Sapling Well	13.7	14	Immature	Final harvest 2000. Decent regeneration.
37	42100 - Planted White Pine	Poletimber Well	16.8	56	81-110	White pine underplanted in 1959. All but white pine removed in 1997. Skid trails cut through the pine.
38	42100 - Planted White Pine	Poletimber Well	6.7	56	81-110	White pine underplanted in 1959. All jack pine and marked oak removed in 1997. The oak that was left is at least 50% dead and most of this is on the ground.
39	42221 - Natural Jack Pine, Mixed Deciduous	Sapling Well	12.4	23	Immature	Final harvest 1992. Good mix of natural regeneration J3/O1-A1-Mr1.
41	42221 - Natural Jack Pine, Mixed Deciduous	Sapling Well	15.3	23	Immature	Final harvest in 1992. Mix of natural regeneration J3/A2-O1-Mr1.
42	6120 - Lowland Cedar	Poletimber Well	56.1	85	81-110	Very wet dense stand. Down over the bank. Giss - I - Was Creek bi-sects stand. Includes marsh grass, standing water, tag alder etc.
43	42110 - Planted Red Pine	Sawtimber Medium	36.1	81	51-80	Red pine and jack pine planted in 1939. 2012 thinning removed all jack pine and oak. Red pine residual reduced 60' to 70' sq ft. The residual red pine will act as a nurse crop to stimulate oak regeneration. Stand was thinned 5/2012 Kirby Pine 73-016-09-01. Oak understory is getting well established.
44	4125 - Black, N. Pin Oak	Sapling Well	114.4	22	Immature	Red pine and jack pine planted in 1937. All jack pine and oak removed in 1991. Dense O3 understory has resulted from partial harvest in 1991. CC w/ reserves 8/2013. Kirby Pine 73-016-09-01. Well established oak understory has been released.
45	42110 - Planted Red Pine	Sawtimber Poor	14.7	81	1-50	Red pine and jack pine planted in 1939. Shelterwood Seed harvest 5/2012. Kirby Pine 73-016-09-01. Oak understory is getting well established.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
46	42220 - Natural Jack Pine	Poletimber Well	5.0	57	111-140	Ground cover is moss and blueberry. Lower than surrounding stands. Hold as there has been a lot of harvesting activity in the last 10 years.
47	42141 - Planted Mixed Pine, Mixed Deciduous	Sapling Well	87.9	5	Immature	Clearcut 2009 - FTP C73-854 to interplant red pine submitted. Planted to red pine 5/2010, FTP C73-854.
48	4125 - Black, N. Pin Oak	Sapling Medium	23.3	6	Immature	Stand was clear-cut in 2009 following wind damage. All red pine removed to release oak that is in understory.
49	4125 - Black, N. Pin Oak	Sapling Well	29.8	6	Immature	Overstory removed in 2009 following wind damage.
53	4130 - Aspen	Sapling Medium	11.7	3	Immature	Clearcut spring 2012 Huckleberry Trail 73-004-07-01.
54	6113 - Lowland Maple	Poletimber Well	59.6	100	51-80	Stand is in the Muskegon River flood plain. Wet mucky soils. Areas of tag alder, cattails, standing water and dogwood.
55	4310 - Pine, Oak Mix	Sapling Well	44.1	20	Immature	Final harvest in 1995. Mix of natural regeneration J3/O2-Mr1. White pine left at south end of stand.
56	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	13.3	17	Immature	OPIC - FMD: Final harvest 1998. Planted to jack pine in 1998.
59	4122 - Oak, Pine	Sapling Medium	12.9	3	Immature	Clear-cut spring 2012 Huckleberry Trail 73-004-07-01. To release oak regeneration that was in place. Harvest did not go over steep bank leading down to the Muskegon River back waters. Good mix of natural regeneration. Many new cabins on surrounding private land.
61	42221 - Natural Jack Pine, Mixed Deciduous	Sapling Well	43.0	24	Immature	Final harvest 1991. Mix of natural regeneration. J3/O1-Mr1-A1.
62	4130 - Aspen	Poletimber Medium	22.7	42	51-80	Habitat cut 1973. Oak and some white pine were left. Just starting to reach pole size. Marginal aspen site.
63	6113 - Lowland Maple	Sawtimber Well	102.8	90	81-110	Very wet mucky soils. Commercial harvest not feasible. EAB well established in the ash and taking a toll on all the ash.
64	4125 - Black, N. Pin Oak	Sapling Well	46.1	20	Immature	Final harvest 1995. Stump sprout oak and seed source oak. Mix of natural regeneration O3/J1-Mr1-A1.
65	42220 - Natural Jack Pine	Sapling Well	5.0	18	Immature	Final harvest 1997.
68	6112 - Lowland Aspen	Poletimber Well	26.0	73	51-80	Access is limited. Aspen is on the decline, converting to Mr, ash and oak. Overall stand is very wet. Commercial harvest would only be possible on 100% frozen ground. Possible habitat cut. However, regeneration is a concern as aspen is past its prime and on the decline. The stand may convert to lowland brush if cut.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
69	61199 - Lowland Hardwood (OI)	Poletimber Well	25.4	119	81-110	Stand is in the Muskegon River flood plain. Access concerns, surrounded by water and/or private land.
70	6113 - Lowland Maple	Sawtimber Well	78.8	121	81-110	Stand is in the Muskegon River flood plain. Stand floods in spring and periods of rain. Pockets of swamp white oak. EAB present in stand and taking toll on ash.
72	6113 - Lowland Maple	Poletimber Well	132.4	75	51-80	Stand is in the Muskegon River flood plain. Stand floods in spring and periods of rain. Scattered pockets of cedar, hemlock and balsam fir. Old river oxbows all over the place.
73	4125 - Black, N. Pin Oak	Sapling Medium	10.2	3	Immature	4" DBH spec. Clearcut spring 2012 Huckleberry Trail 73-004-07-01. Scattered mature red pine and oak left.
74	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Medium	14.8	66	1-50	Selection harvest spring 2012 Huckleberry Trail 73-004-07-01. Red pine and jack pine planted in 1949. All jack pine, scattered aspen and marked red pine were cut. Residual red pine was reduced to 60' sq ft. to establish regeneration and release regeneration that is in place. Residual red pine will act as a nurse crop to establish oak regeneration. Hold and evaluate the results of harvest next year of entry.
75	6112 - Lowland Aspen	Poletimber Medium	10.7	42	1-50	Very wet ground. Dense tag alder and dog wood understory. Some type of habitat cut in the 70's. Too wet for commercial harvest.
76	42110 - Planted Red Pine	Poletimber Well	4.4	78	81-110	Long term retention when stand 7 was cut.
82	6112 - Lowland Aspen	Sapling Well	29.9	28	Immature	Habitat cut 1987. Low and wet.
86	42221 - Natural Jack Pine, Mixed Deciduous	Sapling Well	12.8	18	Immature	Final harvest 1997. 6" DBH spec. Good mix of natural regeneration. J3/O1-Mr1-A1. White pine residual at south end of stand.
88	4130 - Aspen	Poletimber Well	6.5	53	51-80	Retention for stand 196.
91	4130 - Aspen	Poletimber Well	22.2	30	Immature	Scattered wet pockets. OPIC - FMD: Clearcut in 1985. In transition between well stocked A3 and A6.
92	42110 - Planted Red Pine	Sawtimber Well	18.9	60	171-200	Every fourth row removed in 1984. Center row removed 5/9/2000. Every other row has now been cut. Decent quality red pine. North end of stand is developing a M3/M2-O1 understory.
93	4130 - Aspen	Sapling Well	8.5	24	Immature	OPIC - FMD: Clearcut in 1991. Coming back nice.
94	4130 - Aspen	Poletimber Well	24.0	32	1-50	Mostly upland with a few scattered wet pockets. OPIC - FMD: Clearcut in 1985. Coming back very nice. In transition between well stocked A3 & A6.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
97	42110 - Planted Red Pine	Sawtimber Well	12.5	60	141-170	Every fourth row removed in 1984. Center row removed 5/9/2000. Every other row has now been cut. Decent quality red pine. Average red pine BA/AC 170' sq. ft. Stand would convert to mixed hardwood if clearcut.
98	4130 - Aspen	Poletimber Well	5.3	32	1-50	OPIC - FMD: Clear cut in 1983, coming back nice. Few patches of red maple and alder. In transition between well stocked A3 & A6.
100	4130 - Aspen	Sapling Well	7.7	24	Immature	OPIC - FMD: Clearcut in 1991, coming back nice, some oak but not much.
102	4130 - Aspen	Poletimber Well	11.2	59	81-110	Mostly upland with low forested drain along red pine stand to the south. Private 40 to the north has been recently surveyed, line is staked and looks good. Have to cross corner of private to the north for access or build road south to Stockwell Road. OPIC - FMD: Final harvest 2" spec manage for aspen regeneration. Stand is expected to regenerate to aspen with a mix of red maple and oak. Stand is mostly upland with a mix of scattered wet pockets. Apply retention along stand 29 (L type)
103	42110 - Planted Red Pine	Sawtimber Well	15.4	60	111-140	Thinned in 2011 open crowns yet. Stand is still responding to thinning. Average BA/AC 130. The bigger diameter red pine is 15" DBH. OPIC - FMD: Third row thinned 1986. Thinned again in 2001. Red maple understory in places. Reduce residual BA/AC down to 120 sq. ft. by individual tree marking. Leave all scattered hardwood (red maple and aspen less than 10 BA/AC). If clearcut this stand would convert to a mixed hardwood stand, red maple and aspen. Tim Gallagher 08/18/2014: Thinned 2011 Whiskey River Pine 73-005-10-01
104	4130 - Aspen	Sapling Well	55.3	21	Immature	OPIC - FMD: Clearcut in 1994, coming back nice, some wet areas.
105	4130 - Aspen	Poletimber Well	21.6	32	1-50	Scattered low wet pockets. OPIC - FMD: Clear cut in 1983, coming back nice. In transition between well stocked A3 & A6.
106	4130 - Aspen	Poletimber Well	32.6	32	1-50	OPIC - FMD: Clearcut 1983, excellent reproduction. In transition between well stocked A3 & A6.
107	42110 - Planted Red Pine	Poletimber Well	1.4	60	171-200	OPIC - FMD: Due to size and location of stand manage with adjacent stand 103.
108	4130 - Aspen	Poletimber Well	10.2	32	1-50	OPIC - FMD: Clear cut in 1983, Coming back nice. In transition between well stocked A3 & A6.
109	42110 - Planted Red Pine	Poletimber Well	29.2	60	141-170	Third row thinned 2004. Red pine BA varies. This stand should be managed with stand 124 due to access.
111	4130 - Aspen	Sapling Well	27.9	11	Immature	OPIC - FMD: Final harvest 2004. Decent aspen regeneration. Small pocket of red pine in center of stand left un-cut.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
112	42110 - Planted Red Pine	Poletimber Well	22.1	60	141-170	Third row thinned in 1986. Thinned again in 2001.
114	42110 - Planted Red Pine	Poletimber Well	2.9	60	111-140	OPIC - FMD: Access through PVT to north or east. Third row thinned in 2000.
116	4130 - Aspen	Sapling Well	1.9	21	Immature	Only access is across private. OPIC - FMD: Clearcut in 1994.
117	42110 - Planted Red Pine	Sawtimber Well	8.3	60	111-140	Third row thinned in 1985. Second time thinned 2011 Whiskey River Pine 73-005-10-01. Hold this year of entry stand is still responding to last thinning.
119	4130 - Aspen	Sapling Well	4.4	21	Immature	OPIC - FMD: Clearcut in 1994.
120	4125 - Black, N. Pin Oak	Sapling Well	4.1	13	Immature	OPIC - FMD: Clearcut in 2002. Decent oak regeneration as a result of the harvest. Scattered oak and white pine residual.
121	6119 - Mixed Lowland Deciduous Forest	Sapling Well	2.5	30	Immature	OPIC - FMD: Habitat cut in 1985, regeneration is slow.
122	6119 - Mixed Lowland Deciduous Forest	Poletimber Medium	16.8	57	81-110	To wet for commercial harvest. Old aspen and ash is falling down. OPIC - FMD: Stand has naturally converted from lowland aspen to lowland hardwood. Very wet site.
123	42110 - Planted Red Pine	Sawtimber Well	1.7	60	141-170	Manage with stand 91. OPIC - FMD: Every fourth row removed in 1984. Center row removed 5/9/2000. Every other row has now been cut. Decent quality red pine. Small knoll of red pine surrounded by hardwood. No treatment; small stand, adds diversity, treat with surrounding stand.
124	42110 - Planted Red Pine	Poletimber Well	21.3	60	111-140	Trees still responding to last thinning, open crowns, self pruning, DBH growth. Avg. BA/AC 140. Third row thinned 2004.
125	6113 - Lowland Maple	Sawtimber Well	13.6	117	51-80	Selective cut in 2003 on frozen ground. I would not take BA any lower at this time due to possible wind throw. This is a very wet sensitive site. Some regeneration is starting to get established as a result of the harvest.
127	42110 - Planted Red Pine	Sawtimber Well	6.4	68	111-140	All species except red pine removed in 1993. Heavy logging damage to residual red pine. Well established O3 understory 6' to 20' tall. Remove red pine over-story and convert to oak. Apply retention by leaving scattered red pine in all DBH classes. Did not find corner at north-west corner of stand. Red pine are in rows somewhat. Red pine BA/AC 140.
128	42220 - Natural Jack Pine	Sapling Well	8.2	22	Immature	Clearcut in 1993. Mix of natural regeneration.
129	42110 - Planted Red Pine	Sawtimber Well	14.3	79	141-170	Thinned in 2002, every 4th row and all jack pine removed. Big diameter red pine here. Lots of open crown space yet. Oak is getting established in understory, oak understory is 4' - 10' tall. Excellent timber. Red pine BA/AC 170



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
130	4125 - Black, N. Pin Oak	Sapling Well	10.3	13	1-50	Clearcut 2002. All white pine and red pine left, less than 10 sq. ft. Very nice oak regeneration has resulted from the harvest.
131	4125 - Black, N. Pin Oak	Sapling Well	26.1	12	1-50	Clearcut in 2002. Scattered oak and red pine were left. 10BA/AC of red pine was left and 10 BA/AC of oak was left. Decent oak regeneration as a result of the harvest. Do not recommend harvesting the over-story that was left.
132	42110 - Planted Red Pine	Poletimber Medium	59.0	68	51-80	Thinned in 2002, all jack pine and marked red pine removed scattered mature mixed oak was left. Parts of stand are ready to have overstory removed and parts are not. Overall red pine overstory is needed 10 more years to nurse O3 along. Red pine BA, size and O3 understory varies within this stand.
133	4125 - Black, N. Pin Oak	Sapling Well	21.7	22	Immature	Clearcut in 1993, converting to oak.
134	42110 - Planted Red Pine	Sawtimber Well	51.6	79	81-110	Jack pine removed in 1993. Red pine thinned down to 90 sq. ft. in 2001. Decent oak regeneration as a result of the two thinnings. Stand will convert to oak when overstory red pine is removed. Oak understory is 20' tall.
135	42110 - Planted Red Pine	Poletimber Medium	29.2	68	51-80	Thinned in 2002. All jack pine and marked red pine removed. Smaller DBH and shorter red pine here than in surrounding stands. A understory of jack pine and oak is just starting to get established as a result of the 2002 harvest.
136	42250 - Pine, Oak	Sapling Well	5.1	12	Immature	Clearcut in 2002. J3/O3 natural regeneration.
137	42120 - Planted Jack Pine	Poletimber Well	43.1	47	51-80	Forest fire here in July 1966. Could be restarted this YOY. Planted jack pine with trace of red pine.
143	6119 - Mixed Lowland Deciduous Forest	Sapling Medium	6.0	21	Immature	All trees 6" DBH and up were removed in 1994. Most of the trees that were left are now dead. Very low wet stand. This stand was slow to regenerate.
144	6115 - Lowland Ash	Sapling Well	15.4	21	Immature	All trees 6" DBH and up were removed in 1994. Most of the trees that were left are now dead. Very low wet stand.
145	6119 - Mixed Lowland Deciduous Forest	Poletimber Medium	20.0	81	51-80	Very wet down over a steep bank. EAB present.
147	6112 - Lowland Aspen	Sapling Well	26.3	30	Immature	Clearcut in 1984. Low wet stand regeneration is slow.
150	6119 - Mixed Lowland Deciduous Forest	Poletimber Well	23.4	84	111-140	Very wet site with mucky soils. Swamp grass all over the place. EAB present.
151	4125 - Black, N. Pin Oak	Sapling Medium	9.3	13	Immature	Clearcut in 2002. Decent O3 regeneration as a result of the harvest. Several oak seed trees were left no measurable



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
153	4130 - Aspen	Poletimber Medium	32.8	50	51-80	Stand is sparse in areas. Should harvest now. Wet pockets, hummocky ground, wet types to the east and west. Pocket of jack pine/spruce along M-61.
154	6113 - Lowland Maple	Sawtimber Well	39.2	121	51-80	Shelterwood prep in 1993, selective cut in 2003 on frozen ground. BA was reduced to 80 sq. ft. Reducing BA any lower now could result in wind throw. Ash Salvage harvest is current. M-61 Ash Split. 73-014-13-01. EAB present. Mucky soils.
156	4130 - Aspen	Poletimber Medium	2.3	47	1-50	
157	6113 - Lowland Maple	Poletimber Medium	13.8	89	51-80	Very wet soils. Semi open stand open/grassy patches within stand. Management options are limited. Poor quality timber.
158	4130 - Aspen	Poletimber Medium	10.4	46	51-80	Hold 10 yrs. as aspen is a little small yet. Try to manage with stands 160 and 163 as access road north to Stocking is very wet. Clearcut in 1969. In transition between well stocked A3 and A6.
160	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	13.5	60	111-140	Access two track from Stockwell Road is seasonally very wet. Tim Gallagher 08/18/2014: First time row thinning 2014, Whiskey River Pine 73-005-10-01. Retention, all scattered mixed hardwood within stand was left. 66BA/AC red pine was removed. Hold 10 years and thin again.
161	6112 - Lowland Aspen	Poletimber Medium	24.5	46	51-80	Clearcut in 1969. Possible habitat cut. Pockets of planted red pine within stand. Access is a concern with this stand. Ravines leading down to creek, wet areas, open grown areas, non stocked patches, aspen blow down along creek, areas of marsh grass. Red pine has not been thinned.
162	4130 - Aspen	Poletimber Medium	39.0	46	1-50	Clearcut in 1969. Overall this stand is not ready for regeneration harvest. Timber is a little bigger at north end. Poor quality aspen.
163	4130 - Aspen	Poletimber Medium	4.0	46	51-80	Hold 10 yrs. as aspen is a little small yet. Try to manage with stands 160 and 158 as access road north to Stocking is very wet. Clearcut in 1969. In transition between well stocked A3 and A6. Beaver activity down along river.
164	42110 - Planted Red Pine	Poletimber Well	59.6	60	111-140	Tim Gallagher 08/18/2014: First time row thinned 2013 Whiskey River Pine 73-005-10-01. Retention, all scattered mixed hardwood within stand was left. 66BA/AC red pine was removed. Hold 10 years and thin again.
166	42120 - Planted Jack Pine	Sapling Poor	32.1	15	Immature	Planted to jack pine in 2002. Some areas planted to red pine in 1992. This site was a black top manufacturing site when M-61 was originally built.
167	42110 - Planted Red Pine	Sapling Medium	23.6	29	Immature	



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
170	4130 - Aspen	Poletimber Medium	26.1	30	51-80	Clearcut in 1985. Scattered low wet areas.
171	4130 - Aspen	Sapling Well	22.6	2	Immature	Apply retention along north end of stand along creek and camp site. Protect campsite from any logging activity. Tim Gallagher 08/18/2014: Clear cut 2013 Whiskey River Pine 73-005-10-01.
172	42110 - Planted Red Pine	Sawtimber Medium	22.4	68	51-80	All jack pine, aspen and marked red pine harvested in 2014. 60 to 70 BA/AC red pine residual. Converting to an oak stand. The residual red pine will act as a nurse crop for oak regeneration. Apply retention at north end of stand along creek. Tim Gallagher 08/18/2014: Thinned 2014 Whiskey River Pine 73-005-10-01
174	42110 - Planted Red Pine	Sawtimber Well	5.8	68	111-140	Narrow stand pinched between private and the creek. Portions of stand are on short steep bank along river. Also some ravines leading to creek. 130 BA/AC.
179	42220 - Natural Jack Pine	Sapling Well	197.6	13	Immature	All oak and jack pine removed in 1992. Overstory red pine removed in 2002. This two stage shelterwood system has resulted in a excellent mix of natural regeneration.
181	6113 - Lowland Maple	Poletimber Well	63.3	89	81-110	Stand is in the Muskegon River floodplain. Mucky soils, seasonally stand has standing water.
182	4125 - Black, N. Pin Oak	Sapling Medium	29.8	13	Immature	All but red pine removed in 2002. Red pine is concentrated in two pockets. Within the pockets the red pine BA is 30 sq. ft. and out side the pockets there is no red pine.
185	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Medium	38.2	95	1-50	Stand is in the Muskegon River floodplain. Mucky soils, seasonally stand has standing water.
186	61199 - Lowland Hardwood (OI)	Sawtimber Well	8.0	98	51-80	Stand is in the Muskegon River floodplain. Mucky soils, seasonally stand has standing water. Access problems.
190	61199 - Lowland Hardwood (OI)	Sawtimber Well	50.6	98	81-110	Stand is in the Muskegon River floodplain. Mature true E type. Mucky soils, seasonally stand has standing water. Island, totally surrounded by water. Stand has been nominated as a Ecological Research Area (ERA) as part of the Muskegon River Green Creek Floodplain Forest North. A plan for this ERA is currently being written.
191	6113 - Lowland Maple	Sawtimber Medium	16.8	98	51-80	Stand is in the Muskegon River floodplain. Mucky soils, seasonally stand has standing water.
193	42110 - Planted Red Pine	Poletimber Well	159.8	66	141-170	Mixed planting of red pine and jack pine, northern pin oak mixed in as well. Red pine out performing all other species. Planted in 1949. Red pine BA/AC varies. Not much in understory. Red pine BA/AC 85. Mixed oak BA/AC 26. Jack pine BA/AC 20. (Total BA/AC 141). Oak and jack pine on the decline.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
196	4133 - Aspen, Mixed Pine	Poletimber Well	50.7	53	51-80	Final harvest 2" spec manage for aspen regeneration. Stand is expected to regenerate to aspen. Scattered low wet areas within stand. Adjacent stand 194(L type) meanders all around this stand. Apply retention around stand 194. MDNR recently acquired the 40 that makes up the west 1/2 of this stand. Variable stand in terms of species composition. Currently under timber sale contract 73-029-10-01 Huckleberry Trail Harvest
198	61199 - Lowland Hardwood (OI)	Sawtimber Well	47.9	89	81-110	Stand is in the Muskegon River floodplain. Mature true E type. Mucky soils, seasonally stand has standing water.
199	61199 - Lowland Hardwood (OI)	Poletimber Well	20.7	178	81-110	In the Muskegon River Floodplain. Very wet soils.
200	41299 - Oak (OI)	Poletimber Well	5.8	80	51-80	Upland site with access problems.
203	6113 - Lowland Maple	Sawtimber Medium	95.2	117	51-80	Selective cut in 2003 on frozen ground. BA was reduced to 100 sq. ft. Ash is in decline from the EAB. Ash salvage sale is currently active. M-61 Split Ash 73-014-13-01. Very mucky soil. Not much happening in the understory.
205	42110 - Planted Red Pine	Poletimber Well	59.0	68	51-80	All jack pine and marked red pine removed in 2002. Hold. Not much happening in understory and crowns are open. Red pine density varies. 80 BA/AC
206	42220 - Natural Jack Pine	Poletimber Medium	9.2	47	51-80	Records of fire in late 1960's. Over all jack pine is short.
210	61199 - Lowland Hardwood (OI)	Sawtimber Well	14.0	89	81-110	Stand is in the Muskegon River floodplain. Mature true E type. Mucky soils, seasonally stand has standing water.
213	42110 - Planted Red Pine	Sawtimber Well	44.0	60	171-200	Outstanding red pine. Avg. BA/AC 195. North 1/2 has no understory, south 1/2 and around edges is developing a hardwood understory. Good access and workable/strait rows. Every fourth row removed in 1984. Center row removed 5/9/2000. Every other row has now been cut. Decent quality red pine. South 1/2 of stand is developing a M2/M1-O1 understory.



Stand	Cover Type	Acres	Managed Site	General Comments:
3	500 - Water	74.4	No	Muskegon River.
6	62399 - Marsh (OI)	22.6	No	Creek bottom stand.
10	6299 - Lowland Shrub (OI)	4.7	No	
11	6299 - Lowland Shrub (OI)	8.4	No	
21	6299 - Lowland Shrub (OI)	6.6	No	
34	62399 - Marsh (OI)	84.9	No	Giss-I-Was Creek bottom lands.
40	6299 - Lowland Shrub (OI)	11.5	No	Mostly tag alder and standing water a few scattered areas of A1 and J1.
58	310 - Herbaceous Openland	0.0	No	0 acre stand, bogus data.
60	3102 - Grass	13.3		Clear-cut 2009 following severe wind damage. Nothing is happening in terms of natural regeneration.
77	310 - Herbaceous Openland	88.9		Clear-cut winter 2014/2015. All oak and marked pine were left. Railroad Sale 73-19-011-01
84	6299 - Lowland Shrub (OI)	0.8	No	
87	6299 - Lowland Shrub (OI)	2.6	No	Scattered lowland aspen. Giss-I-Was Creek Bi-sects stand
89	510- Water (OI)	1.7	No	Water, beaver.
90	6299 - Lowland Shrub (OI)	38.8	No	OPIC - FMD: Creekbottom area, no merchantable timber, fair amount of standing dead soft maple.
95	31029 - Grass (OI)	0.9	No	OPIC - FMD: Active oil well site. State # 1-6. Dart Oil and Gas
96	6299 - Lowland Shrub (OI)	8.4	No	OPIC - FMD: Tag alder.
99	6299 - Lowland Shrub (OI)	3.0	No	OPIC - FMD: Tag alder.
101	6299 - Lowland Shrub (OI)	7.1	No	Blueberry, leather leaf, tag alder, open water, marsh grass, pockets of trees.



Stand	Cover Type	Acres	Managed Site	General Comments:
110	3102 - Grass	8.8		Stand was clearcut 2011. Stand did not regenerate as planned. Scattered pockets of hardwood regen (small A3 pockets). Grass, bracken fern, raspberry, small A3 clones. OPIC - FMD: Thinned in 1985. Parts of stand were not thinned. Most of stand has a dense hardwood under story, red maple and aspen. This is really a hardwood site. Final harvest 2" spec and convert from red pine to a mixed hardwood site. The under story will take a beating during harvest operations and should be cut as opposed to being smashed and driven over. Apply retention along west end of stand along L type along Dishwash Creek. Harvest up to Arnold Lake Road and Kirby Ave. A mix of aspen, red maple and oak regeneration is expected. Tim Gallagher 08/18/2014: Clear cut 2011 Whiskey River Pine 73-005-10-01
113	6299 - Lowland Shrub (OI)	10.5	No	OPIC - FMD: Creek bottom area.
118	6299 - Lowland Shrub (OI)	3.4	No	
126	31029 - Grass (OI)	9.2	No	Clearcut in 1985. Not coming back well.
138	31029 - Grass (OI)	11.1		Old barrow pit from when M-61 was built. Was trenched and planted at one time. Whatever was planted has failed. Sweet fern is present.
152	510- Water (OI)	27.5	No	Water table varies with Beaver activity.
155	31029 - Grass (OI)	10.8	No	Scattered aspen clones.
159	31029 - Grass (OI)	12.4	No	Cearcut 1984 very little woody regeneration.
165	31029 - Grass (OI)	36.6		Some Autum Olive here. Scattered aspen clones.
168	310 - Herbaceous Openland	24.9		Clear cut 2014. Regenerating to a mix of aspen, oak and red maple. All red pine 10" DBH and up was left. Most of the red pine is located in a pocket at the south end of stand. Records of forest fire in the past. Apply retention along west end of stand and leaving scattered red pine. Tim Gallagher 08/18/2014: Clear cut 2014 Whiskey River Pine 73-005-10-01.
169	31029 - Grass (OI)	44.0		Scattered aspen clones. The southern arm is filling in with jack pine and aspen. Stand was trenched summer 2014.
173	31029 - Grass (OI)	1.6	No	
175	310 - Herbaceous Openland	19.1		Final harvest 2" spec. 2013. Huckleberry Trail Harvest 73-029-10-01. Apply retention along natural buffer (drop off) at south end of stand along creek.
176	31029 - Grass (OI)	18.2	No	Scattered red pine and jack pine.



Stand	Cover Type	Acres	Managed Site	General Comments:
177	6299 - Lowland Shrub (OI)	3.7	No	Old barrow pit from when M-61 was built.
180	310 - Herbaceous Openland	32.7		Final harvest 2" spec. 2013. Huckleberry Trail Harvest 73-029-10-01. All scattered red pine and white pine were left. Interplant red pine to maintain full stocking. Apply retention along east end of stand along drop off down to the floodplain.
189	31029 - Grass (OI)	17.6	No	Scattered aspen, white pine, oak and jack pine.
192	510- Water (OI)	10.9	No	Oxbow.
194	6299 - Lowland Shrub (OI)	24.9	No	
195	31029 - Grass (OI)	2.9	No	Scattered red pine.
204	310 - Herbaceous Openland	96.3		Final harvest 2" spec. 2013. Huckleberry Trail Harvest 73-029-10-01. This stand was split from the timber north of Stocwell Road. Apply retention by leaving uncut islands.
209	310 - Herbaceous Openland	51.6		Apply retention by leaving buffer along creek. Tim Gallagher 08/18/2014: Clear cut 2014 Whiskey River Pine 73-005-10-01. To be trenched and planted to red pine. FTP C73-890. Trenched summer of 2014.
211	31029 - Grass (OI)	1.0	No	
300	3102 - Grass	13.9		Stand was clearcut 2011. Stand did not regenerate as planned. Scattered pockets of hardwood regen (small A3 pockets). Grass, bracken fern, raspberry, small A3 clones. OPIC - FMD: Thinned in 1985. Parts of stand were not thinned. Most of stand has a dense hardwood under story, red maple and aspen. This is really a hardwood site. Final harvest 2" spec and convert from red pine to a mixed hardwood site. The under story will take a beating during harvest operations and should be cut as opposed to being smashed and driven over. Apply retention along west end of stand along L type along Dishwash Creek. Harvest up to Arnold Lake Road and Kirby Ave. A mix of aspen, red maple and oak regeneration is expected. Tim Gallagher 08/18/2014: Clear cut 2011 Whiskey River Pine 73-005-10-01
401	31029 - Grass (OI)	5.9	No	Old twp. dump. Still being used by local residents.