

HeadWaters Land Conservancy  
Stewardship Plan

Cummings Farm



Mio, MI 48647  
Oscoda County  
240 acres

Prepared By:  
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HeadWaters Land Conservancy  
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The report which is attached contains appendices as well as the following:

- A description of and background information of the Cummings farm including location, tract description, physical environment, human made structures/improvements, and land uses that may affect future stewardship practices.

The appendices include:

- Appendix A – Goals and Objectives
- Appendix B – Site Recommendations
- Appendix C – Native Planting Recommendations
- Appendix D – Maps including aerial, topographic, soil, and project areas
- Appendix E – Property photos at time of Stewardship Plan
- Appendix F – Invasive Species ID
- Appendix G – Additional Resources

## **SITE DESCRIPTION**

The Property consists of 240 acres, northeast of Mio, Michigan. The Cummings family resides on site, owning and operating an organic cattle farm. Wayne Cummings practices rotational grass feeding and much of the Property consists of open pasture land. That being said, approximately one third of the tract remains forested with seasonal wetlands present. Refer to Appendix D for Property maps.

### **Location and Surrounding Properties**

The Cummings Farm is located near the town of Mio, Michigan in Oscoda County. The land use surrounding the Property is very rural and can be generally described as a mixture of widely spaced year-round and seasonal dwellings. Neighboring properties are consistent with the conservation values present on the Cummings Farm, although not actively managed for long term stewardship.

### **Human-made Structures/Improvements**

A single family residence and several outer buildings including a milking parlor and barn are located on the Property. These improvements can be identified in the provided maps (Appendix D) and are contained to the southern portion of the Property.

### **Wildlife and Vegetation**

The Cummings family actively manages their land for the benefit of local wildlife. A variety of bird species have been identified with the possibility for many more if proper management techniques continued. Seasonal wetlands encourage other forms of wildlife to inhabit the farm also. Expected wildlife includes: white-tailed deer, fox, coyote, bobcat, woodchuck, beaver, and a wide variety of insects, reptiles and amphibians.

### **Land Uses Affecting Future Stewardship**

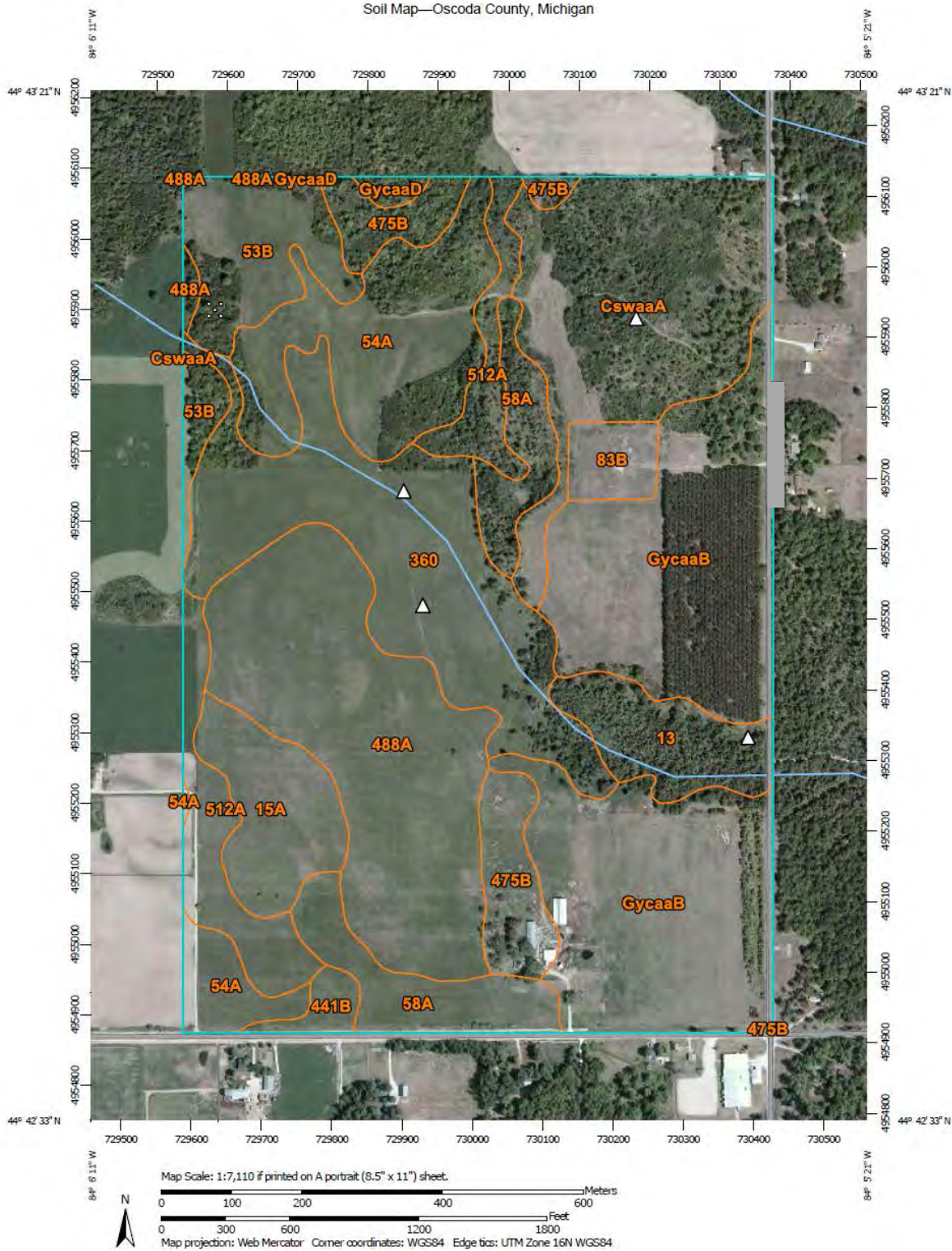
The Cummings farm is first and foremost an organic milk operation. Because of this, the Property is open to year-round grazing. This poses a unique challenge to any stewardship that takes place in the future.

### **Soils**

There are 14 different soil types located on the Cummings farm, the predominant type being Graycalm Sand, 1-6% slopes. Graycalm sand is somewhat excessively drained and results in minimal flooding. Allendale Sand and Wakeley Muck are also majority soil types on the Property.

Descriptions of each soil type identified on the property can be found at the USDA website: <http://websoilsurvey.sc.egov.usda.gov>.

Soil Map—Oscoda County, Michigan



## Map Unit Legend

Oscoda County, Michigan (MI135)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
13	Tawas-Lupton mucks	8.6	3.4%
15A	Croswell-Au Gres sands, 0 to 3 percent slopes	9.9	3.9%
53B	Negwegon silt loam, 2 to 6 percent slopes	12.6	5.0%
54A	Algonquin silt loam, 0 to 3 percent slopes	23.9	9.5%
58A	Wakeley-Allendale complex, 0 to 3 percent slopes	13.6	5.4%
83B	Udipsamments, nearly level and undulating	3.4	1.4%
360	Wakeley muck	31.9	12.6%
441B	Morganlake-Nester complex, 0 to 6 percent slopes	1.9	0.7%
475B	Graycalm-Klacking sands, 0 to 6 percent slopes	10.3	4.1%
488A	Allendale sand, 0 to 3 percent slopes	35.8	14.1%
512A	Algonquin-Springport silt loams, 0 to 3 percent slopes	13.1	5.2%
CswaaA	Croswell sand, 0 to 3 percent slopes	29.5	11.7%
GycaaB	Graycalm sand, 0 to 6 percent slopes	57.4	22.7%
GycaaD	Graycalm sand, 6 to 18 percent slopes	1.0	0.4%
<b>Totals for Area of Interest</b>		<b>253.0</b>	<b>100.0%</b>

## **Appendix A**

### **Goals and Objectives**

**Goal 1:**

Create a natural buffer between the Cummings Farm and Property to the west. (Primarily field #3 on Department of Agriculture Farm Map.) Utilize native plants and other ideas from restoration professionals to enhance biodiversity and separate land use.

**Goal #2:**

Utilize forests on site for agroforestry purposes. Promote growth of trees that will be able to withstand the stress of cattle use.

**Goal #3:**

Reestablish former creek that historically ran diagonally from the northwest corner of the Property and fed into a wetland area near the center of field #2. (Department of Agriculture Farm Map.)

**Goal #4:**

Remove topsoil in field #2 to create year-round wetland/pond. Utilize native plants and trees to prevent future erosion. Additionally, plant vegetation that would encourage further insect use and waterfowl nesting.

## **Appendix B**

### **Site Recommendations**

1. Encourage the growth of native plants and establish new plantings (throughout):
  - a. Utilize local resources to identify plants that will encourage the establishment of insect communities and nesting birds.
  - b. Native plants should tolerate a wide range of conditions spanning from well saturated soils in the early spring and summer to drier conditions later in the year.
  - c. Focus establishment on non-pasture areas, including fields 2 and 4, as well as potential buffer areas.
  
2. Removal of invasive species.
  - a. While some invasive plant species are less threatening, others can prevent the establishment of more desired growth.
  - b. Gradually remove invasive species in field 4 (primarily spotted knapweed) and replace with natural grasses. Perennial grasses that could be used for cattle feeding purposes may also be considered.
  
3. Create buffer between encroaching farm to west and natural grasses on Cummings farm.
  - a. Plant hardy trees along southwest boundary of field 3 to create boundary between Cummings farm and neighbor.
  - b. Trees should be tolerant of drier, sandy soil conditions and eventually resistant to cattle use.
  - c. Minimal fencing to prevent cattle use is recommended while trees become established. Any fencing used should still allow for the passing of other animals. In the future, this buffer will serve as an excellent corridor for wildlife.
  
4. Creation of year-round pond
  - a. Use a top-soil removal project to create a pond in the southern portion of field 2. Area is already well saturated and should remain so with the addition of annual rain and snow melt.
  - b. Surround pond with plant species that will establish deep root systems to help reduce erosion.
  - c. Utilize local resources to identify plants that will encourage bird and insect use.
  - d. Provide nesting boxes for further wildlife encouragement
  - e. Create natural buffer (similar to Site Recommendation #3) to prevent access from cattle or other grazing animals – deer excluded. While having a water source would be beneficial to the farm itself, allowing cattle to access this ecologically sensitive area would be detrimental. Cattle and other heavy grazing animals accelerate erosion and easily contaminate an otherwise healthy water source.

## Appendix C Native Planting Recommendations

### Dry Areas

Trees:

Balsam Fir	<i>Abies balsamea</i>
River Birch	<i>Betula nigra</i>
Crabapple	<i>Malus hybrids</i>
Black Spruce	<i>Picea glauca</i>
White Spruce	<i>Picea mariana</i>
Eastern cottonwood	<i>Populus deltoids</i>
Bur Oak	<i>Quercas macrocarpa</i>

Flowers:

Black-eyed Susan	<i>Rudbeckia hirta</i>
Butterfly weed	<i>Asclepias tuberosa</i>
Common milkweed	<i>Asclepias syriaca</i>
Showy goldenrod	<i>Solidago speciosa</i>
Smooth Aster	<i>Aster laevis</i>
Wild Bergamot	<i>Monarda fistulosa</i>
Wild Lupine	<i>Lupinus perennis</i>

Grasses:

Little Bluestem	<i>Schizachyrium scoparium</i>
Canada Wild Rye	<i>Elymus canandensis</i>
Virginia Wild Rye	<i>Elymus virginicus</i>

### High-moisture Areas

Trees:

Eastern hemlock	<i>Tsuga canadensis</i>
White pine	<i>Pinus strobes</i>
Yellow birch	<i>Betula alleghaniensis</i>
Red maple	<i>Acer rubrum</i>
White spruce	<i>Picea glauca</i>
N. White cedar	<i>Thuja occidentalis</i>

Flowers:

Monkshood	<i>Aconitum napellus</i>
Joe-pye weed	<i>Eupatorium pupureum</i>
Meadowsweet	<i>Filipendula sp.</i>
Bergenia	<i>Bergenia sp.</i>
Lady's mantle	<i>Alchemilla mollis</i>
Marsh Marigold	<i>Caltha palustris</i>

Grasses:

Switch Grass	<i>Panicum virgatum</i>
Canada Wild Rye	<i>Elymus canandensis</i>
Big Bluestem	<i>Andropogon geratii</i>

Please note that even though native plants will not need much maintenance in the many years to come, they will need a lot of water and weeding during the first year while their roots are becoming established.

Huron Pines recommends getting planting materials from the most local source available. Using native plants is essential to protecting our "up north" lands and they are much better adapted to our unique soils and habitats. When selecting plants, soil type and location are just as important as wet versus dry and shade versus sun. You will see the best results when getting the right plant in the right place. So, when purchasing plants, be sure to tell the nursery staff where you live and what type of soil you have.

**Sources of Plant Materials:** (Please call ahead to determine availability of any particular plant.)

Otsego Conservation District Native Plant Nursery: Native to northern Michigan, the Otsego Conservation District has a variety of flowers and grasses available in different size plugs. Trees and shrubs are also available through pre-order, from their Spring/Fall Seedling Fundraiser.

Gaylord, Michigan

(989) 732-4021

<http://www.otsego.org/conservationdistrict/nativeplantnursery.html>

Wildtype Native Plant Nursery: A wide selection of native flowers, grasses, sedges, ferns, trees and shrubs are available in various sizes of plugs and trays. Wildtype also provides ecological services such as invasive species management and planting assistance.

Mason, MI

(517) 244-1140

[www.wildtypeplants.com](http://www.wildtypeplants.com)

Native Connections: Native Connections offers a wide selection of native (including native to northern Michigan) seed in the form of pre-mixed and individually designed planting mixes.

Three Rivers, MI

(269) 580-4765

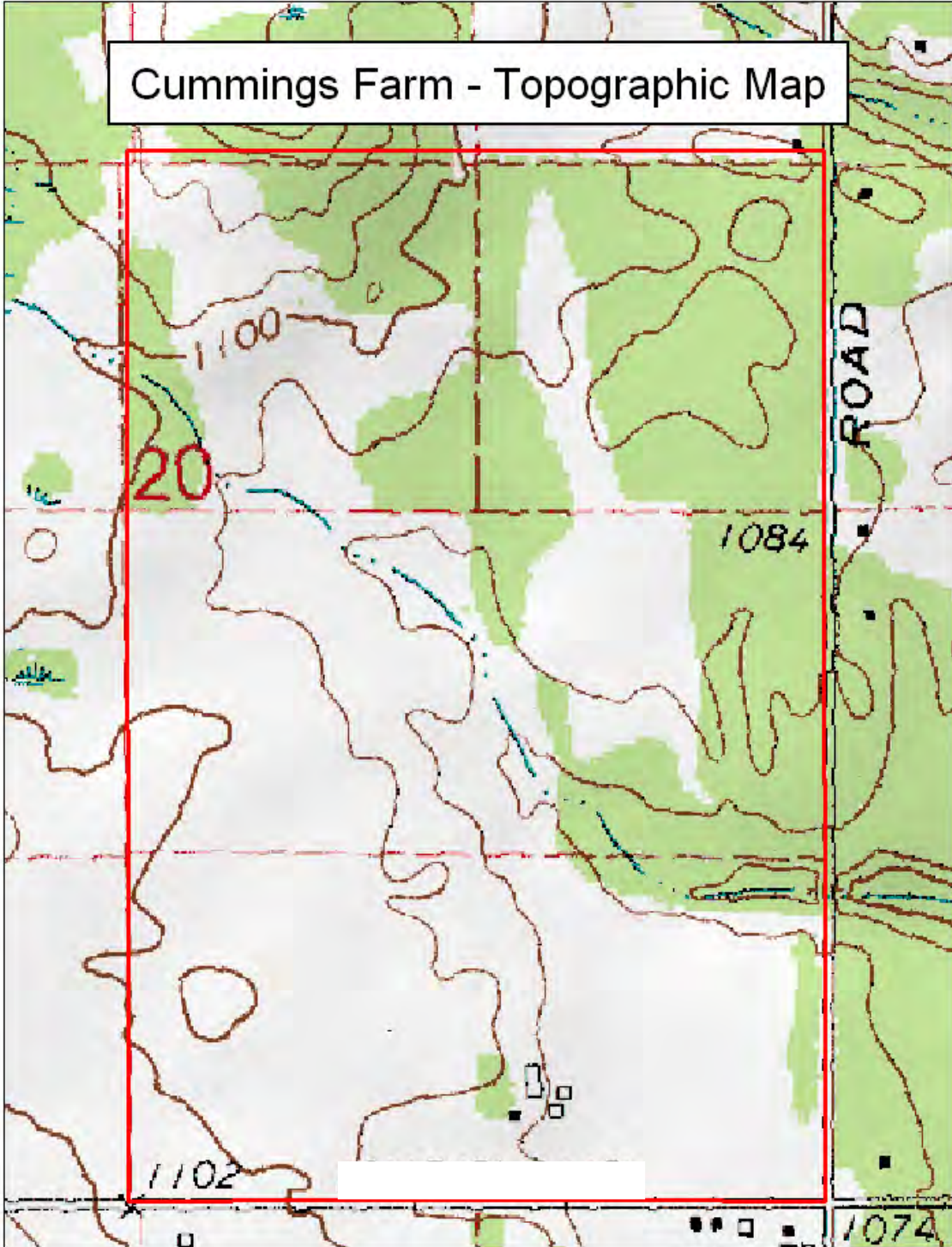
[www.nativeconnections.net](http://www.nativeconnections.net)

- *There are many great sources for native plants in Michigan. Huron Pines and HeadWaters Land Conservancy does not imply any lack of endorsement by not listing each supplier. If you would like a more complete list, please contact Huron Pines at [info@huronpines.org](mailto:info@huronpines.org).*

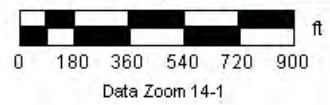
# Appendix D Maps



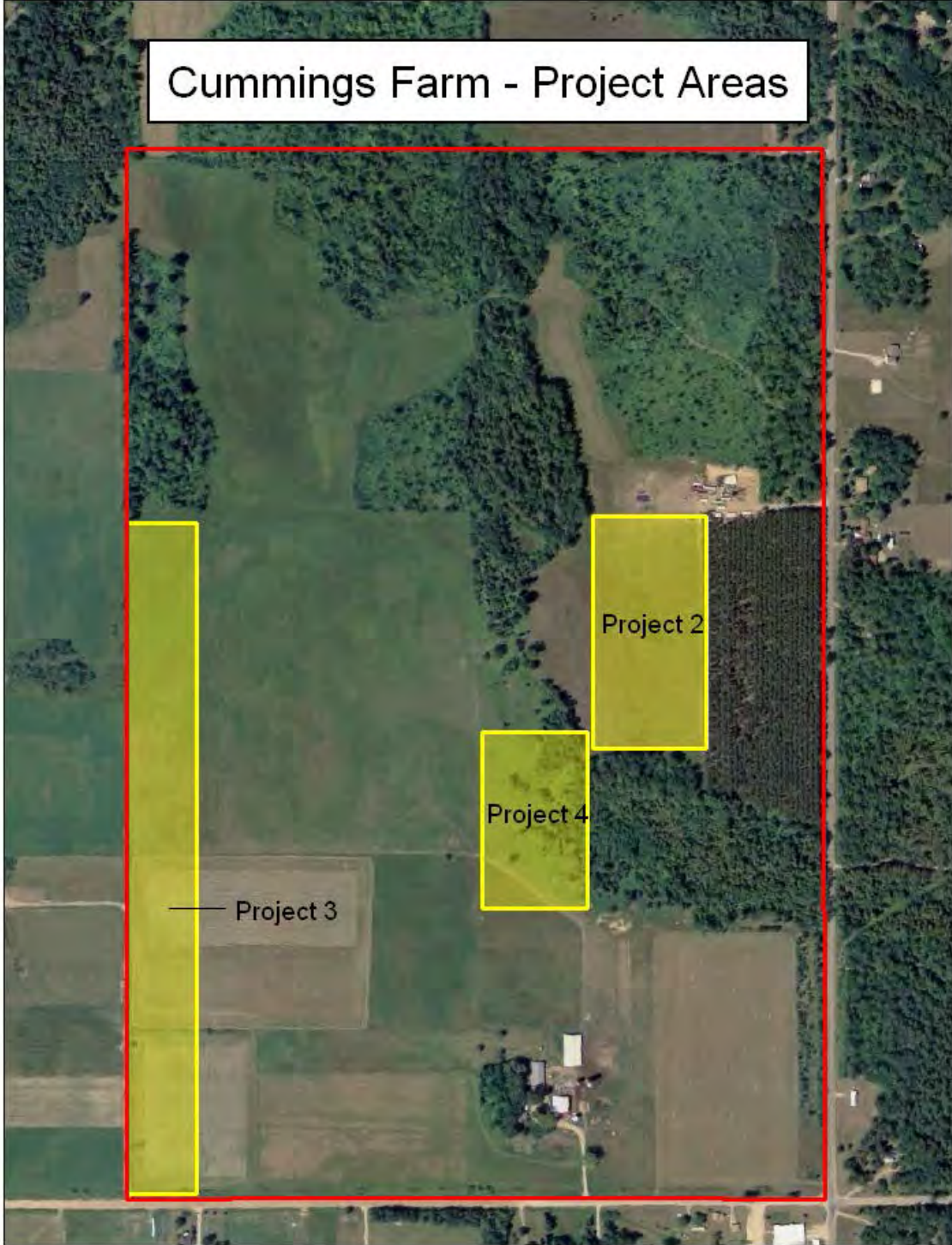
# Cummings Farm - Topographic Map



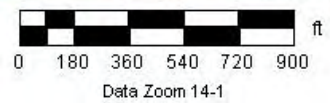
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www.delorme.com



# Cummings Farm - Project Areas



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www.delorme.com





**USDA** United States Department of Agriculture  
 Farm Service Agency



Digital Orthophotography  
 Not to Scale

**Oscoda County**  
**Farm # 380**  
**Oct 13, 2011**

**Appendix E**  
**Property Photos at time of Stewardship Plan**



Potential natural grassland – spotted knapweed removal is priority  
Photo by: Emily Cook



Rotational grazing in effect  
Photo by: Emily Cook



Wide shot – potential permanent wildlife pond  
Photo by: Emily Cook



Close-up of potential wildlife pond location  
Photo by: Emily Cook



Back of Cummings farm from grazing field  
Photo by: Emily Cook



Example of undisturbed, mixed forest  
Photo by: Emily Cook

## Appendix F Invasive Species Identification



Spotted Knapweed: 2-3 feet high, blooms from Late July through September. Toxic to other plants. Pulling and mowing (as needed so seeds cannot spread.)



Mullein: 5-10 feet high after first year with yellow, flowering stalk. A more dominant species than native plants. Manual hand pulling with minimal soil disturbance



Autumn Olive: Can grow up to 20 feet tall, Blooms from April to June. Degrades native plant communities. Hand pulling and often chemical use is necessary for removal.



Phragmites: 10-15 feet high, crowds out native plants and animals in wetland areas. Managed with initial herbicide treatment followed by manual removal.



Purple Loosestrife: 3-6 feet tall with a showy, purple flower. Crowds out native wetland species. Herbicide and manual treatment for removal. Applicator's license required.

## Appendix G Additional Resources

- **Huron Pines**
  - 4241 Old US 27 South, Ste 2. Gaylord, MI 49735
  - (989)448-2293
  - [info@huronpines.org](mailto:info@huronpines.org)
  - **Personalized stewardship recommendations, assistance in choosing additional stewardship partners, habitat restoration, invasive species control, native plantings.**
- Michigan Natural Resource Conservation Service
  - 271 W. McCoy, Gaylord, MI 49735 (989)732-6526
  - Farm Bill, Financial Assistance, Landscape Initiatives, Landscape planning.
- Oscoda County Conservation District
  - PO Box 820, Mio, MI 48647 (989)826-8824
  - [oscodacd@gmail.com](mailto:oscodacd@gmail.com)
  - Forestry Assistance Programs
- Otsego Conservation District
  - 800 Livingston Blvd. Ste 4A, Gaylord, MI 49735 (989)732-4021
  - [posburn@otsegocountymi.gov](mailto:posburn@otsegocountymi.gov)
  - Technical assistance, equipment for rent, native plant nursery, permitting guidance
- Michigan Department of Environmental Quality
  - Gaylord Field Office – 2100 W. M-32, Gaylord, MI 49735
  - (989)731-4920
  - Environmental permitting