

Rexford Lake Intercounty Drain

MDARD – Brady Harrington
Kent County – Ken Yonker
Muskegon County – Brenda Moore
Ottawa County – Joe Bush

February 29, 2024



Outline

- Background/History
- Drainage District Boundary Review
- Inspection Overview
- Design Alternatives

Background/History

- Petition for Maintenance and Improvement
- Watershed: ~5,800 Acres/9 Sq. Mi.
- ~650 Parcels
- Drain Length: 27,065 Ft. / ~5.1 Mi.
- Land Use: Agricultural & Forested

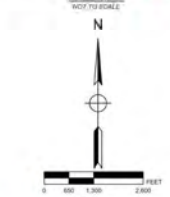
REXFORD LAKE INTERCOUNTY DRAIN KENT, MUSKEGON, AND OTTAWA COUNTIES, MICHIGAN

MICHIGAN DEPARTMENT OF AGRICULTURE AND RURAL DEVELOPMENT - BRADY HARRINGTON, P.E.

KENT COUNTY DRAIN COMMISSIONER - KEN YONKER

MUSKEGON COUNTY DRAIN COMMISSIONER - BRENDA MOORE

OTTAWA COUNTY DRAIN COMMISSIONER - JOE BUSH



- DRAINAGE DISTRICT BOUNDARY
- DRAINAGE LINE
- OTHER WATER COURSES
- OTHER DRAINS
- STEEL ROADS
- COUNTY LINES
- LOCAL ROADS
- RAILROADS
- TOWNSHIP BOUNDARY
- COUNTY BOUNDARY

DRAINAGE DISTRICT BREAKDOWN PROPERTY OWNERS ASSESSABLE ACREAGE

COUNTY	TOWNSHIP	ACREAGE
KENT COUNTY	TYRONE TOWNSHIP	1,250.02 AC.
	SPARTA TOWNSHIP	2,683.19 AC.
MUSKEGON COUNTY	CASNOVA TOWNSHIP	1,543.12 AC.
	CHESTER TOWNSHIP	353.59 AC.
TOTAL ACREAGE IN DISTRICT		5,779.30 AC.

LENGTH OF DRAIN
REXFORD LAKE INTERCOUNTY DRAIN: 27,063 FT.

68% KENT COUNTY
27% MUSKEGON COUNTY
5% OTTAWA COUNTY

DAY OF REVIEW OF DRAINAGE DISTRICT BOUNDARY:
DATE: _____
APPROVED: _____

BRADY HARRINGTON, P.E.
REXFORD LAKE INTERCOUNTY DRAIN BOARD CHAIRMAN

BY	MARK	REVISIONS	DATE

REXFORD LAKE INTERCOUNTY DRAIN
KENT, MUSKEGON, AND
OTTAWA COUNTIES, MICHIGAN

DRAINAGE DISTRICT MAP



DESIGNED BY: MRM	CHECKED BY: AMS	PROJECT NO: 135614502023
DRAWN BY: AMS	APP'D BY: AMS	
DATE: FEBRUARY 2024	SHEET 1 OF 1	DR 1
SCALE: 1" = 300'		

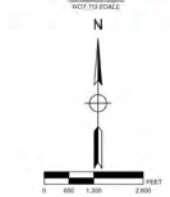
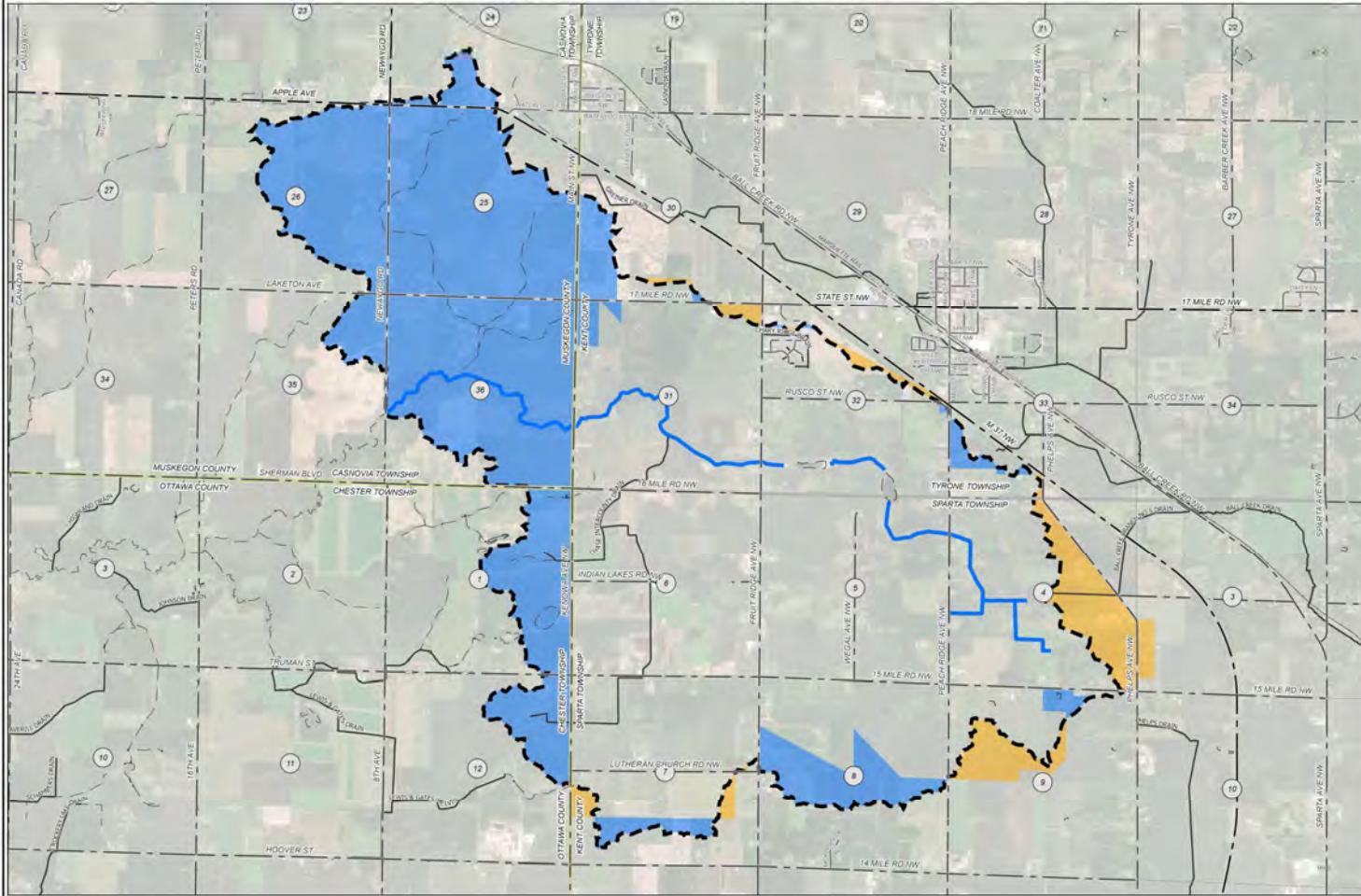
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- PROPERTY OWNERS' ASSESSABLE ACREAGE
- LANDS ADDED
- LANDS REMOVED
- DRAIN BOUNDARY
- TOWNSHIP BOUNDARY
- RANGE BOUNDARY
- ROAD
- COUNTY BOUNDARY
- WATER
- RAILROAD
- UNDEVELOPED
- DEVELOPED

DRAINAGE DISTRICT BREAKDOWN PROPERTY OWNERS' ASSESSABLE ACREAGE

COUNTY	TOWNSHIP	ACREAGE
KENT COUNTY	TYRONE TOWNSHIP	1,293.28 AC.
	SPARTA TOWNSHIP	2,483.19 AC.
MUSKEGON COUNTY	CASNOVA TOWNSHIP	1,543.62 AC.
	CHESTER TOWNSHIP	303.89 AC.
TOTAL ACREAGE IN DISTRICT		5,781.06 AC.

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KENT, MUSKEGON, AND
OTTAWA COUNTIES, MICHIGAN

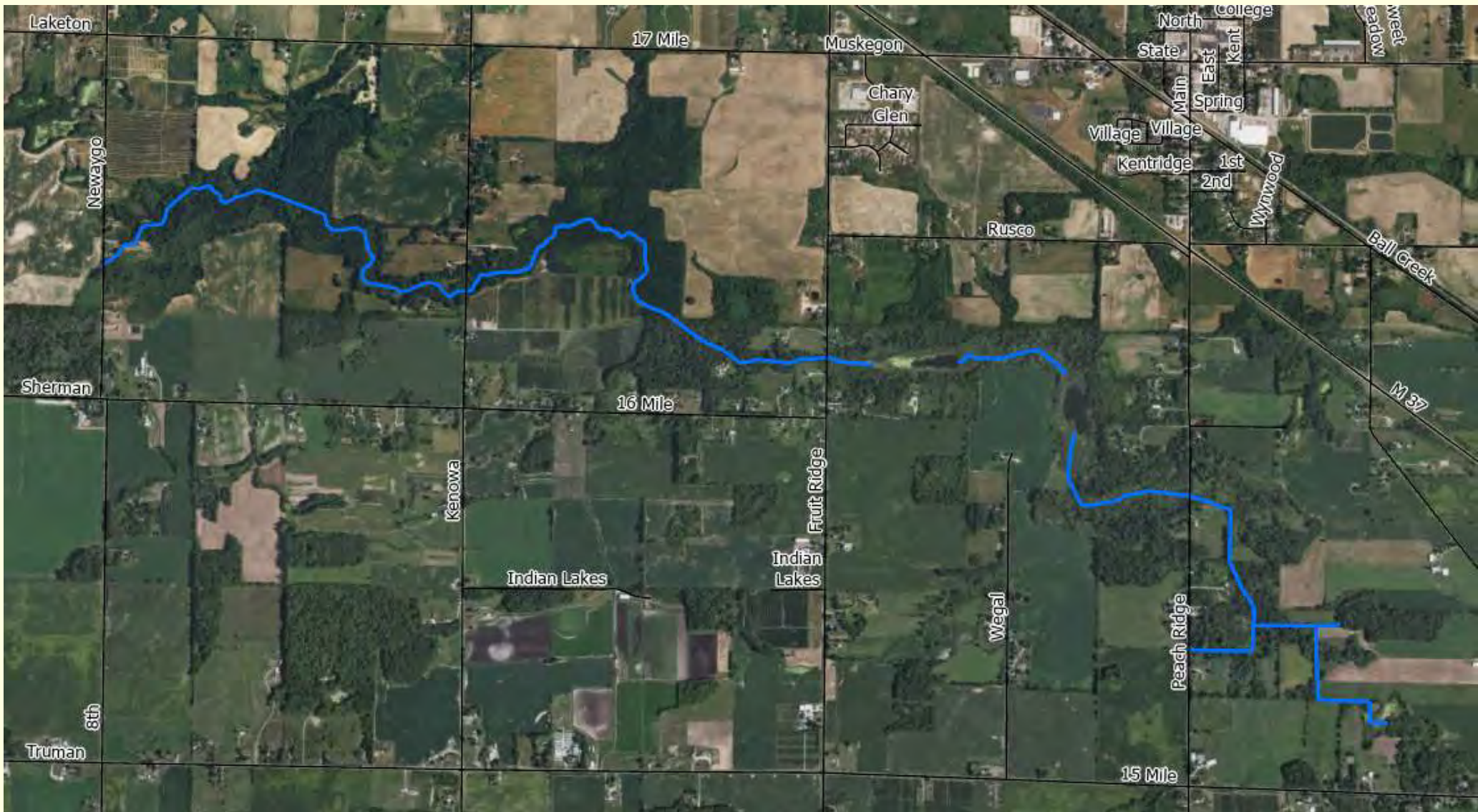
LANDS ADDED AND
LANDS REMOVED MAP



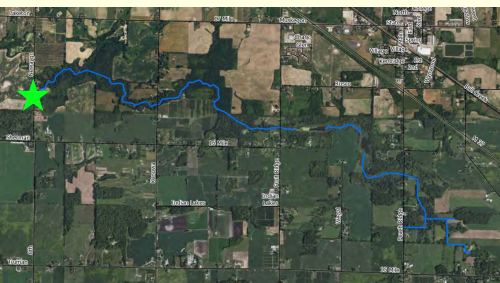
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SCALE: 1" = 300'

PROJECT NO: 135614502023

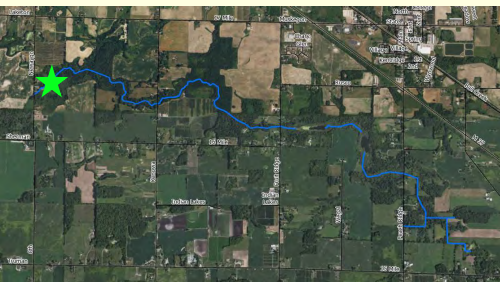
SHEET 7 OF 1 DR 1



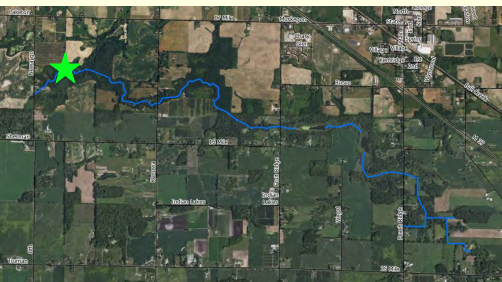
Newaygo Road Crossing (POB)



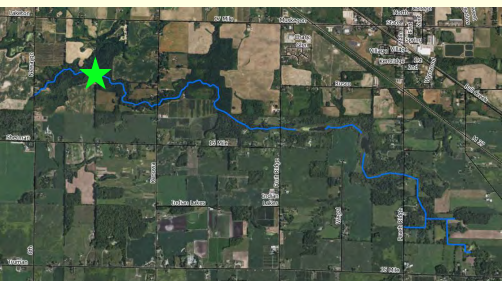
Woody Debris in the Drain



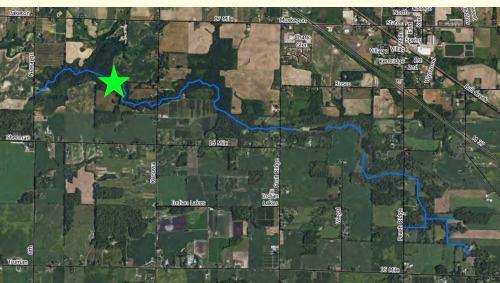
Woody Debris and Erosion



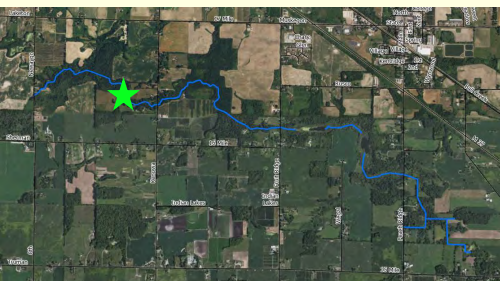
Woody Debris Obstructing the Drain



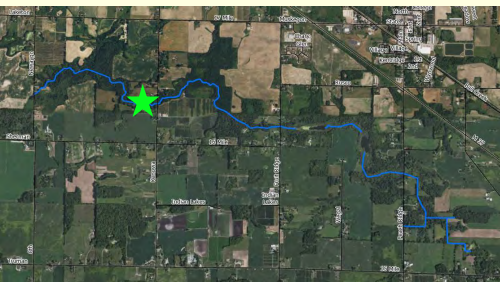
Woody Debris Obstructing the Drain



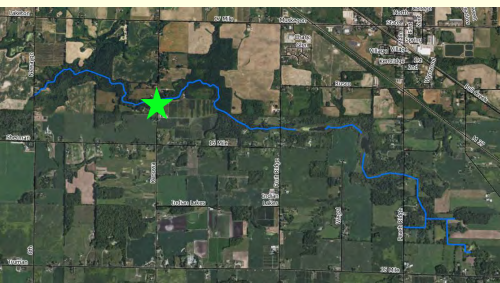
Woody Debris and Erosion



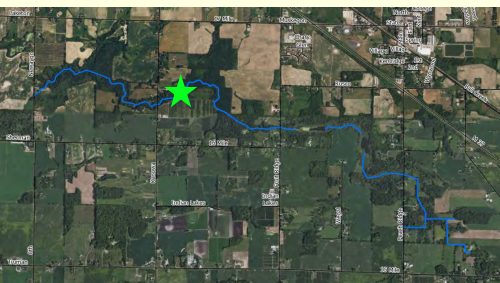
Woody Debris and Erosion



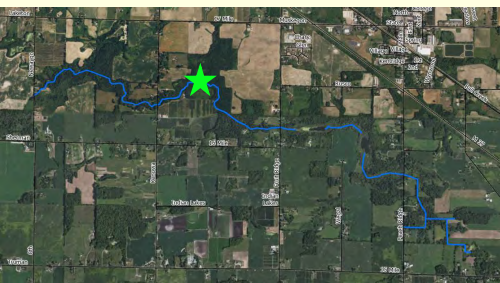
Kenowa Ave. Crossing



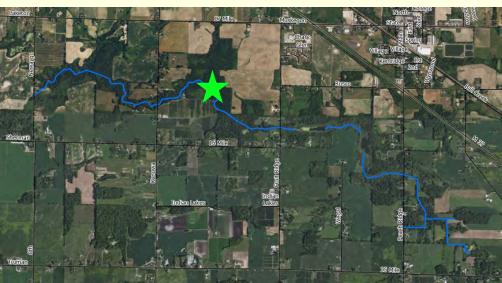
Woody Debris and Erosion



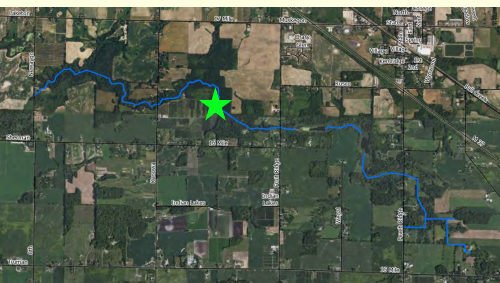
Woody Debris and Erosion



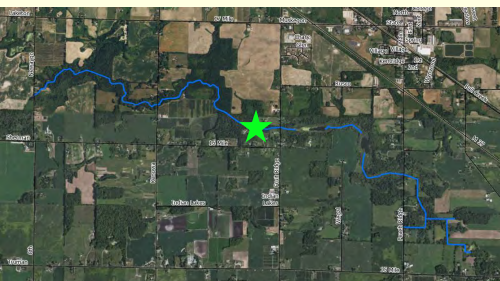
Woody Debris and Erosion



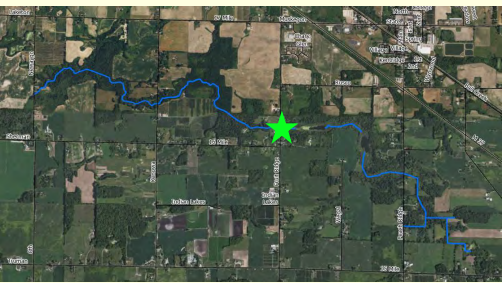
Erosion Repair and Fence



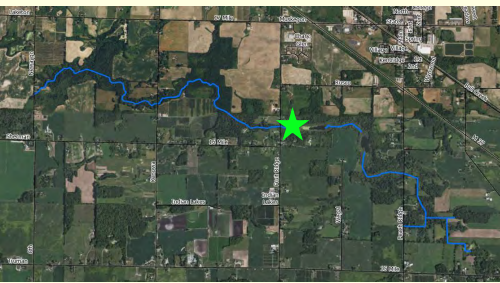
Woody Debris Obstructing Drain



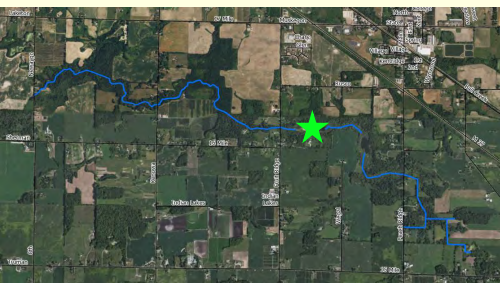
Fruit Ridge Ave. Crossing



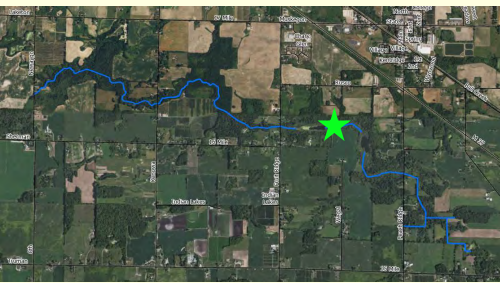
Indistinct Channel and Heavily Vegetated



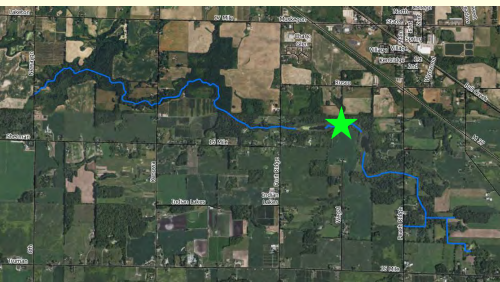
Rexford Lake



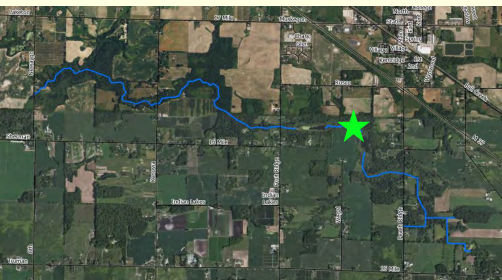
Indistinct Channel and Heavily Vegetated



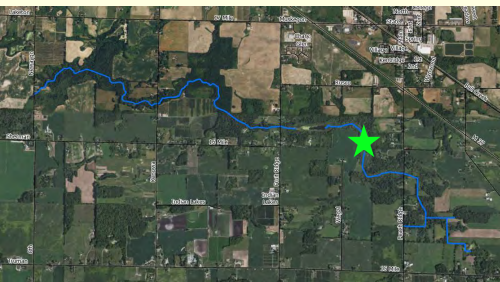
Indistinct Channel and Heavily Vegetated



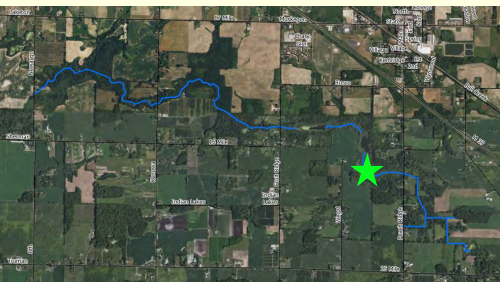
Indistinct Channel and Heavily Vegetated



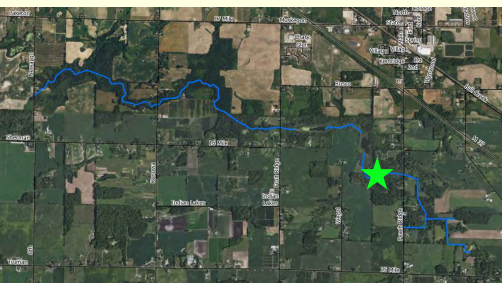
Wegal Lake



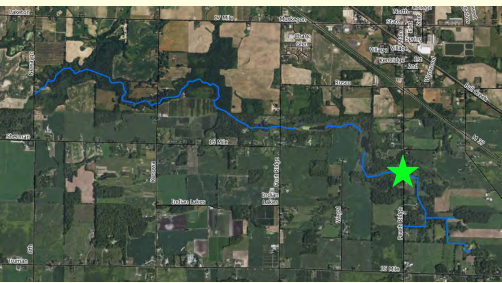
Stagnant Channel, Woody Debris, and Grassy Banks



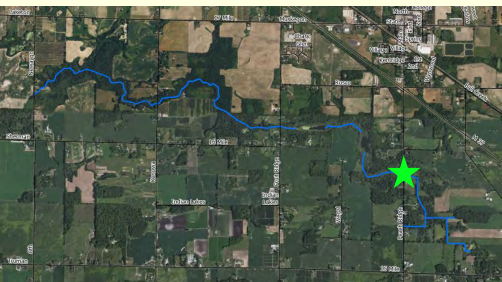
Stagnant Channel, Woody Debris, and Grassy Banks



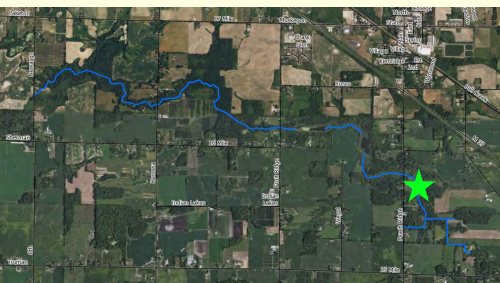
Peach Ridge Ave. Crossing



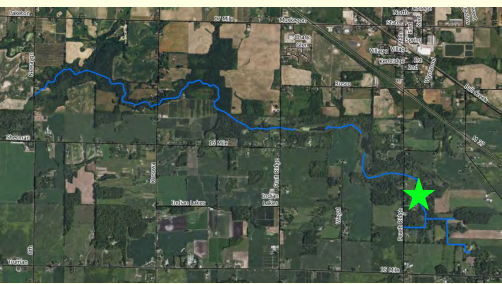
Peach Ridge Ave. Crossing



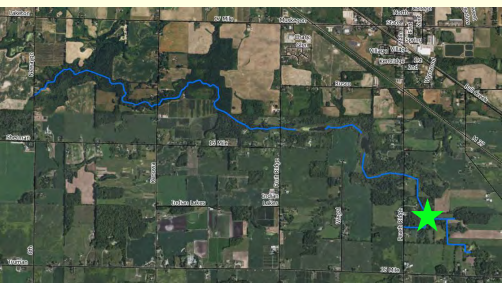
Eroded Channel



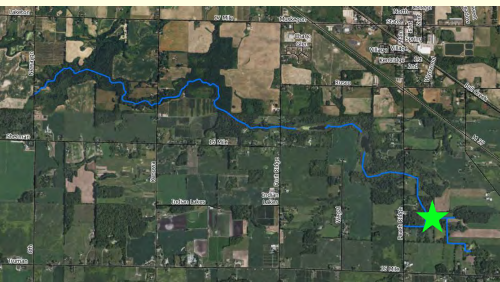
Heavily Vegetated Channel



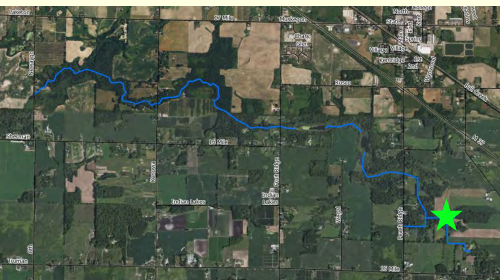
Heavily Vegetated Channel



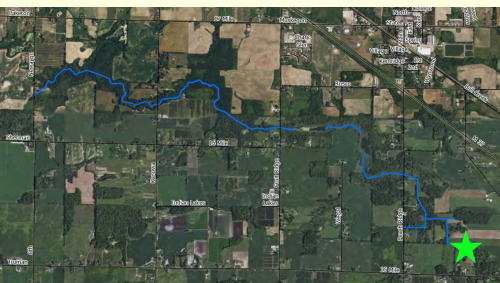
Stagnant Channel, Woody Debris, and Grassy Banks



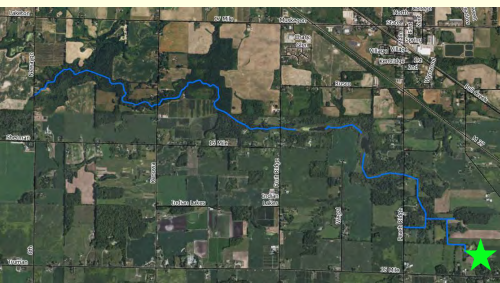
Stagnant Channel,
Woody Debris,
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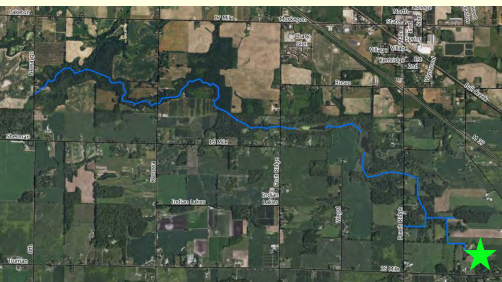
Structure
Backing Up 2-3
Feet of Water



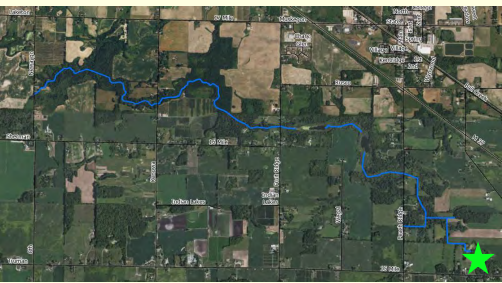
Flooded Drain



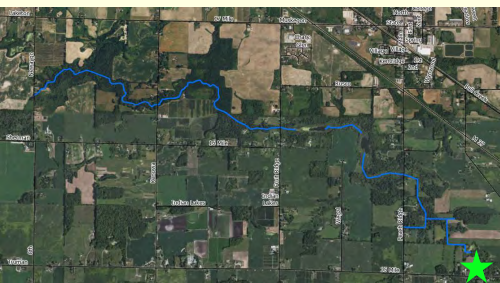
Indistinct
Channel Heavily
Vegetated



Small Channel
Heavily
Vegetated



15 Mile Road Crossing



Overall Condition

- Fair Condition
- A Lot of Woody Debris
- Portions of Eroded Banks
- Portions of Drain with Stagnant Water
- Portions of Drain with Undefined Channel
- Structure Blocking Water Near Upstream End

Design Alternatives

- Extend drain to 15 Mile Road crossing
- Establish agreement for structure that is holding back water
- Remove woody debris, repair erosion, restore historic line and grade via sediment removal

Preliminary Cost Estimate

- Channel Maintenance - \$180,000
- Woody Debris Removal - \$75,000
- Erosion Repair - \$70,000
- Miscellaneous Construction - \$50,000
- Total Construction Cost - \$375,000

Procedure/Next Steps

■ Purpose of Hearing:

- To determine whether a project is necessary

■ Next Steps If Found Necessary:

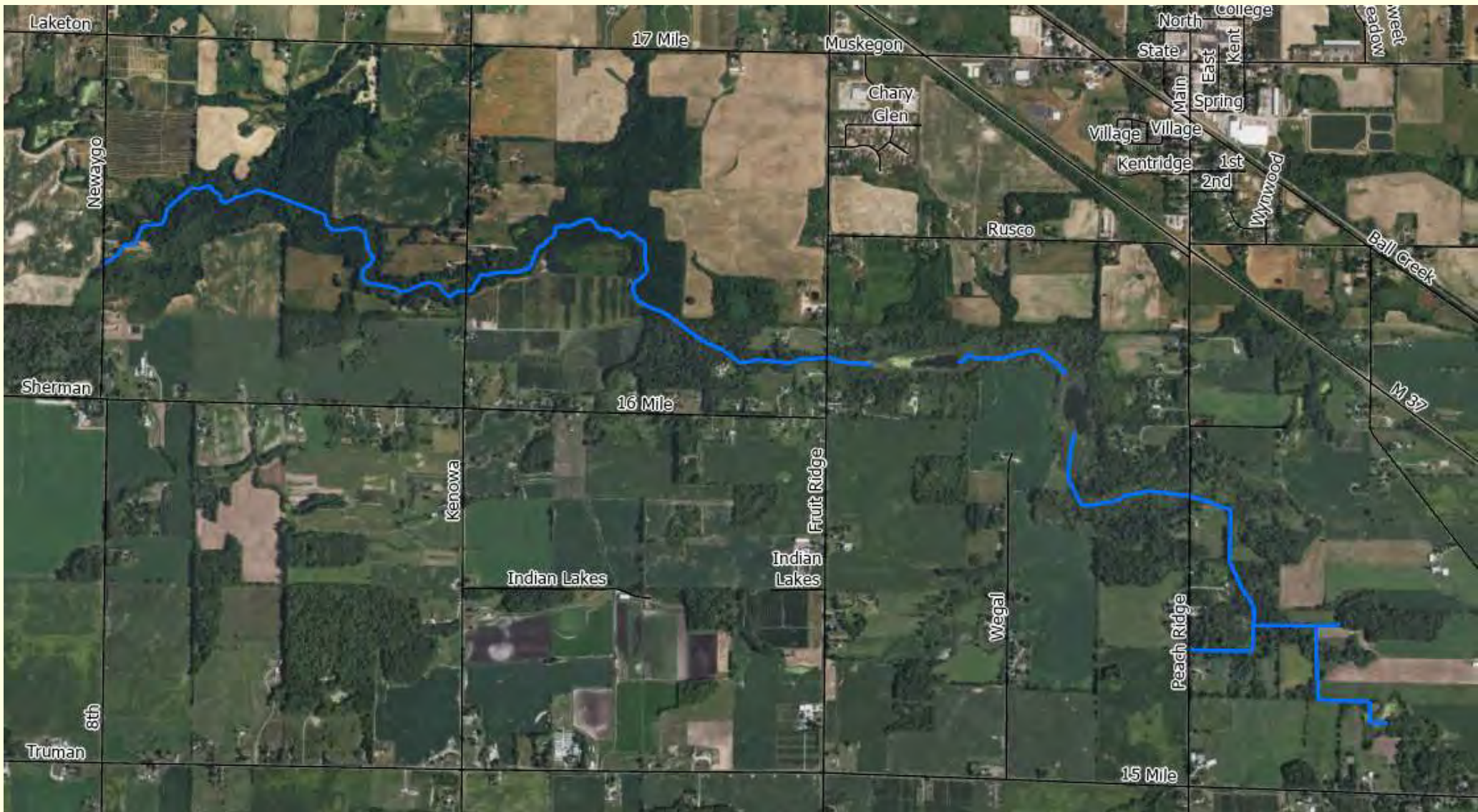
- Further Engineering
- Easement Acquisition
- Permitting
- Bidding
- Hearing to Review Apportionments
- Construction

Procedure/Next Steps

- **If Found NOT Necessary:**
 - Proceedings end
 - No new petition for a period of 1 year

Questions?





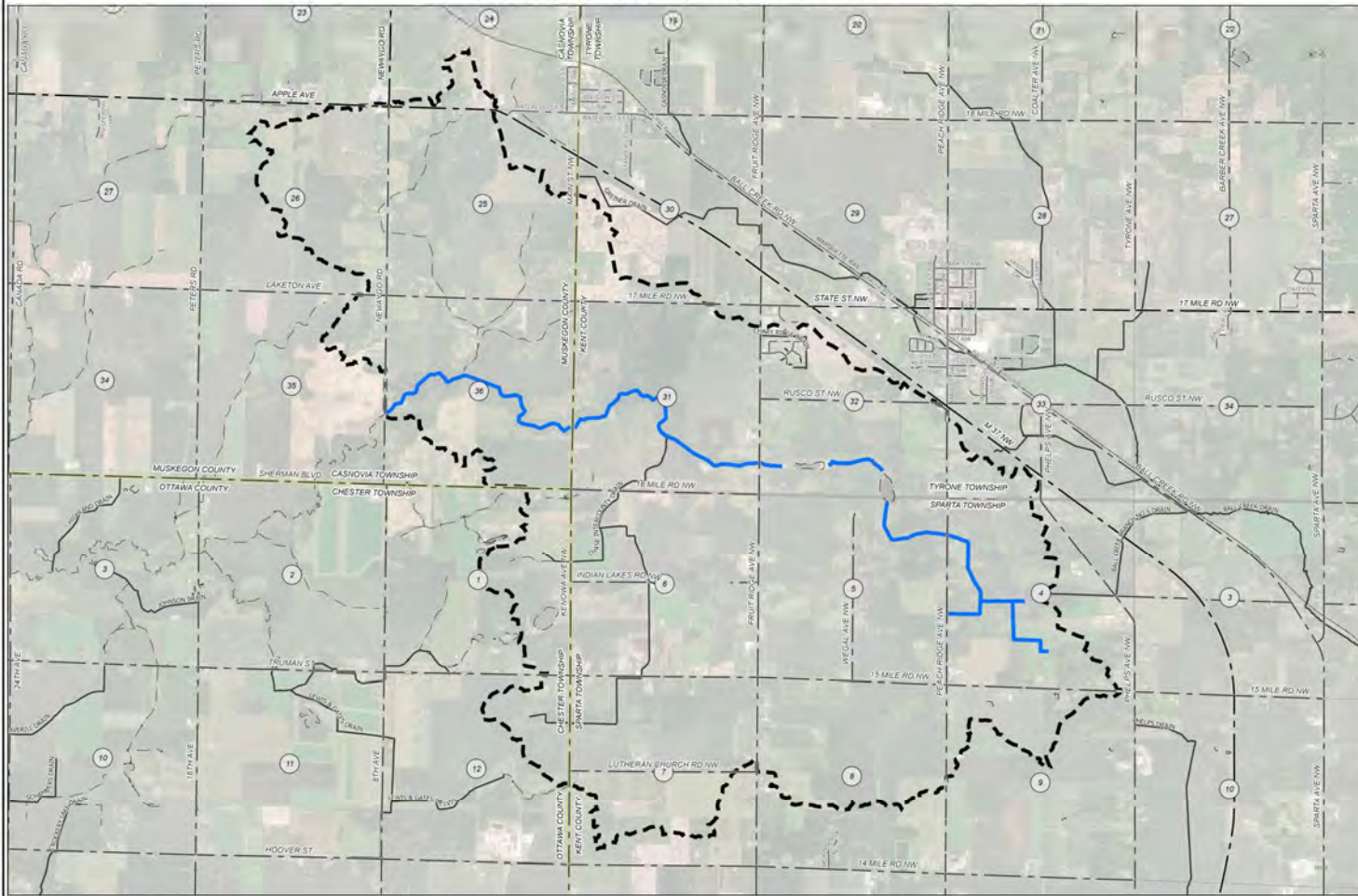
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- DRAINAGE DISTRICT BOUNDARY
- DRAINAGE LINE
- OTHER DRAINAGE
- OTHER ROADS
- COUNTY LINES
- LOCAL ROADS
- RAILROADS
- MUNICIPALITY BOUNDARY
- NEARBY BOUNDARY

DRAINAGE DISTRICT BREAKDOWN

PROPERTY OWNERS ASSESSABLE ACREAGE

KENT COUNTY	
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SPARTA TOWNSHIP	2,683.19 AC.
MUSKEGON COUNTY	
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