## Marsh Creek #2 Drain

## Public Informational Meeting

Fremont Township Hall November 21, 2024 6:00 PM



Brian J. Wendling

Saginaw County Public Works Commissioner



# Purpose of Meeting

 Inform landowners adjacent to drain of proposed improvements

 Public Works Commissioner to receive input and comments from landowners on the proposed plan

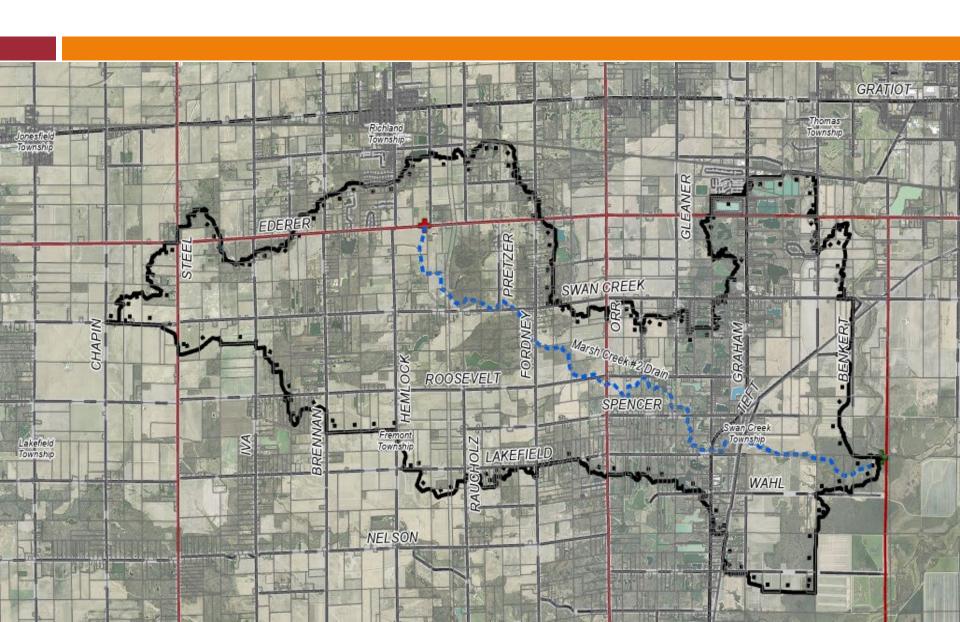
## Presentation Agenda

- Drain Background
- Drainage District
- Survey and Design
- Open Channel Improvements
- Drain Crossing Improvements
- Cleanup and Restoration
- Tentative Project Schedule
- Preliminary Estimate of Cost
- Questions and Comments

# Drain Background

- The Marsh Creek #2 Drain was established in 1900
- Where is the Marsh Creek #2 Drain?
  - Outlet: Swan Creek Township, in the Swan Creek Intercounty Drain approx. 2.4 miles east of the Lakefield and Graham Rd (M-52) intersection
  - Upper end of Drain: located in Richland Township on north side of Ederer Rd, approximately 450 feet west of the intersection of Ederer Road and Watson Road
  - Traverses Swan Creek, Fremont and Richland Townships
  - Total length: approximately 9.5 Miles

#### Location of Drain



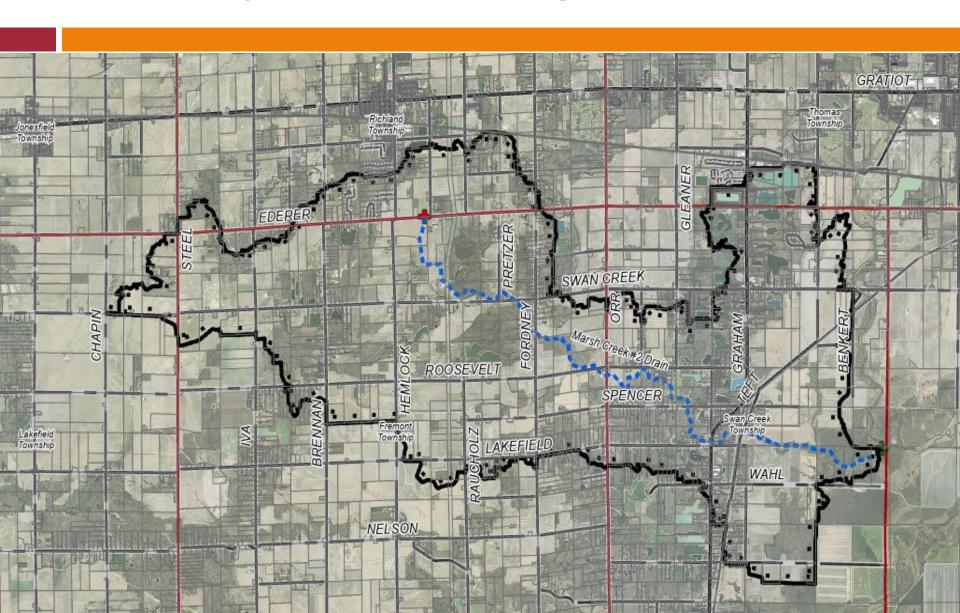
# Project Background

- Current Landowner Petition
  - Dated June 12<sup>th</sup>, 2023
- Landowner Testimony Board of Determination Meeting held September 20, 2023
  - Flooding at Vanderhayden Drain outlet to Marsh Creek
    #2 Drain near Roosevelt and Trimm Road intersection
  - Many dead trees down throughout
  - Log jams and sediment bars restricting flow and causing erosion
  - Stagnant water

## **Drainage District**

- What is the drainage district?
  - Lands that contribute storm water to drain
  - Drainage District serves as the special assessment district
  - Marsh Creek #2 Drain Drainage District includes:
    - Fremont, Richland, Lakefield, Swan Creek & Thomas Township
    - Saginaw County
    - Landowners Approximately 1,735 parcels
    - 18,785 Acres +/-

## Drainage District Map



# Survey, Engineering & Design

- Survey of drain
- Draft survey onto plans
- Engineering field review
- Existing utility research
- Hydrology and hydraulic calculations
- Analyze alternatives
- Final design of plans

# Survey

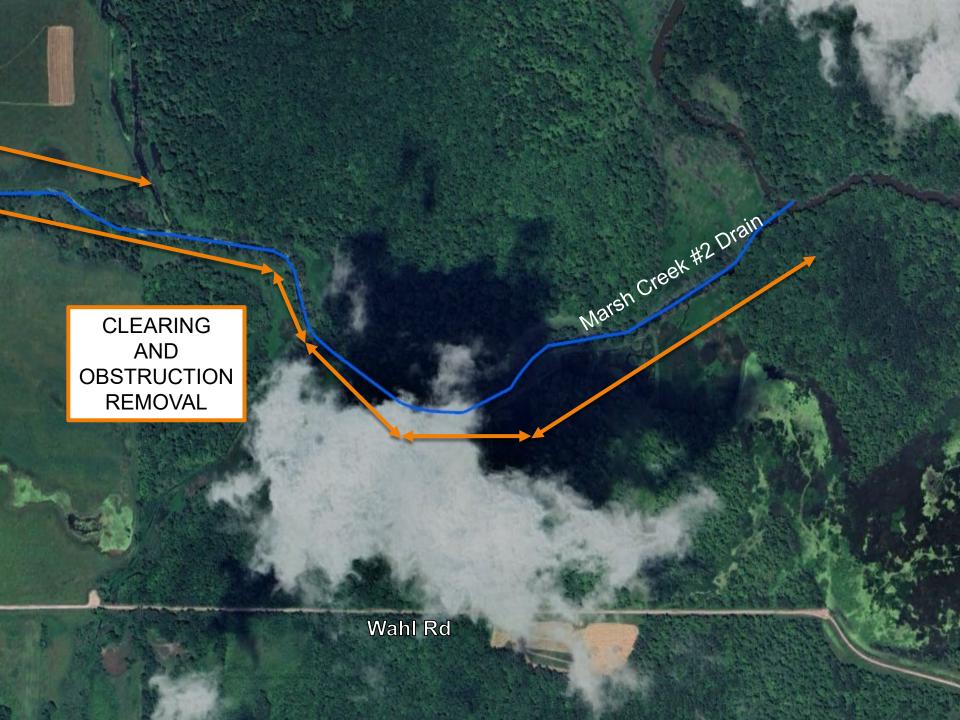
- Surveyed approx. 9.5 miles of open drain
  - Collected flowline elevations every 250 feet
  - Collected cross sections at minimum every 500 feet
  - Collected topography within 50 feet of the drain centerline
  - Collected elevations of all culvert crossings

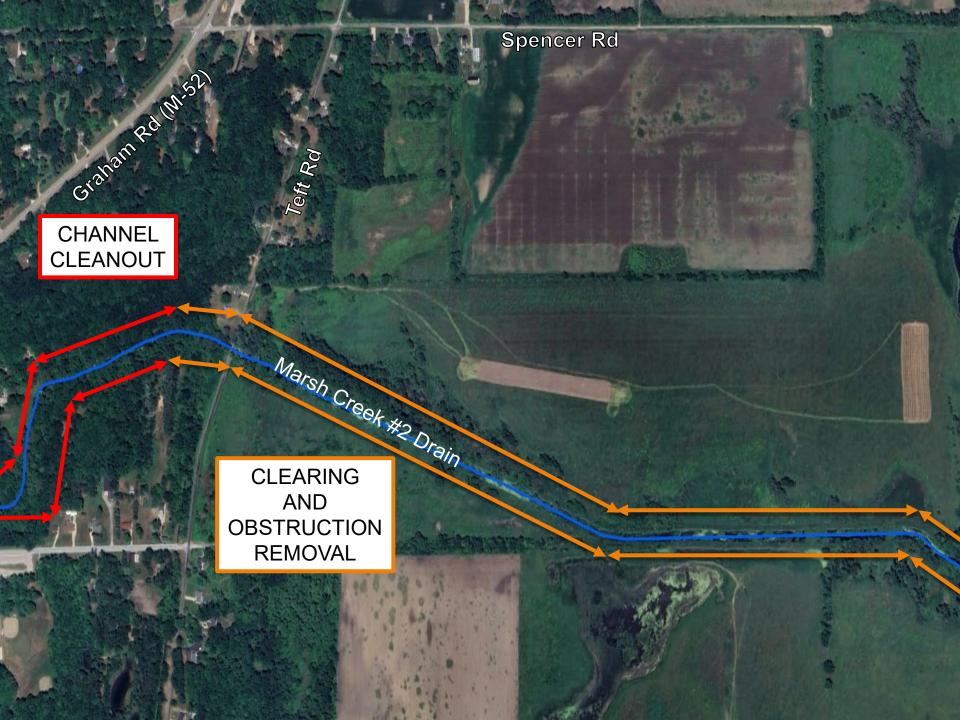
## Design

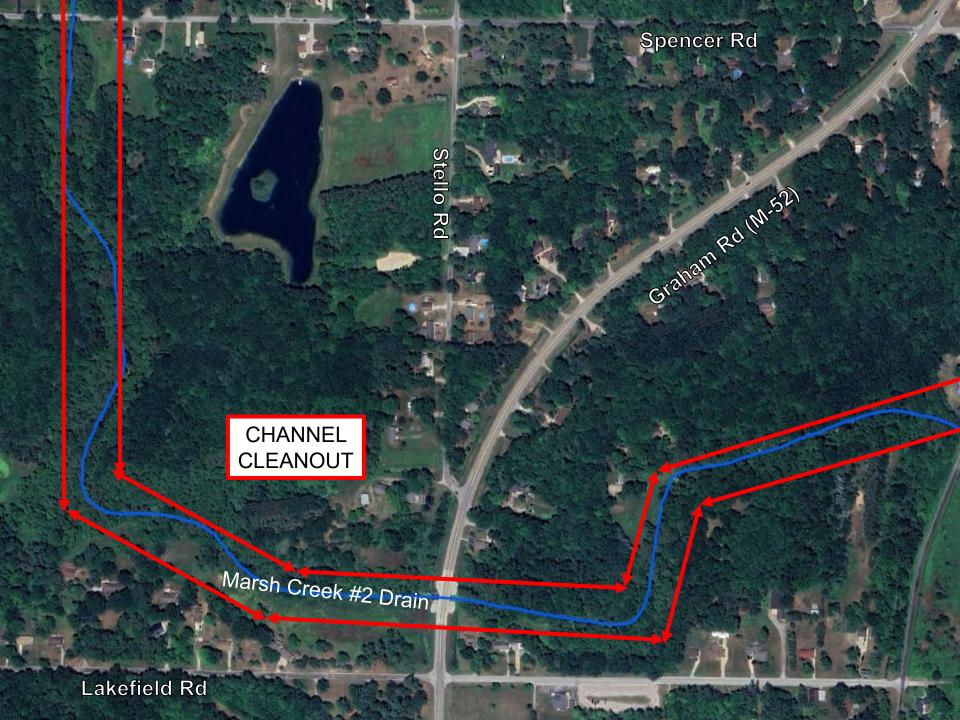
- 10-Year Design Storm
  - Saginaw County Standard Level of Service
  - 1.43 Inches of rain in 1 hour
  - 3.05 Inches of rain in 24 hours

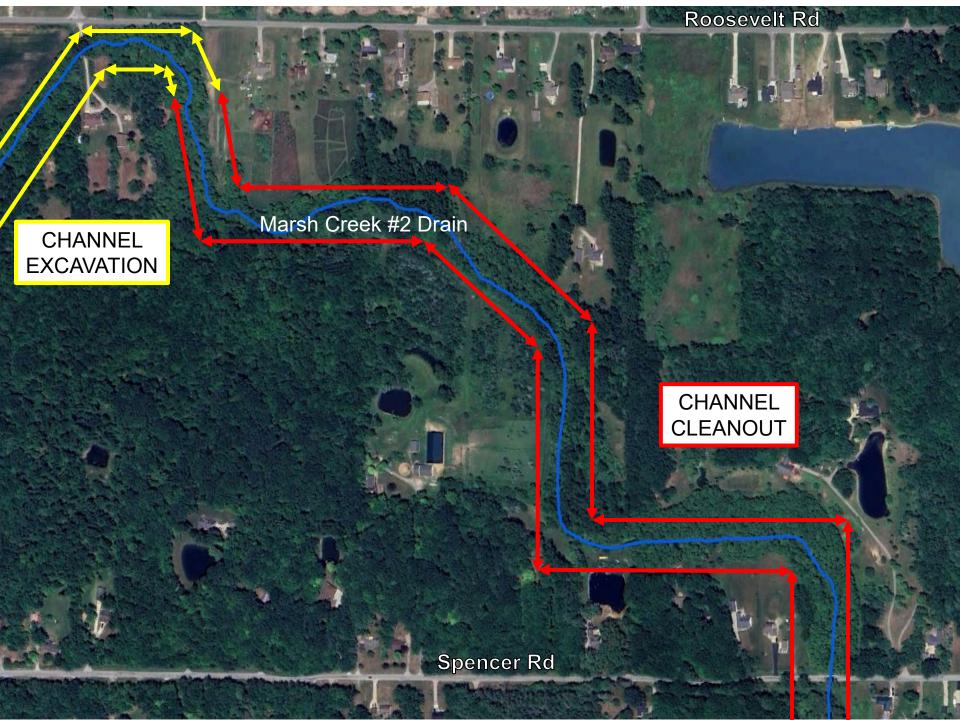
## Channel Improvements

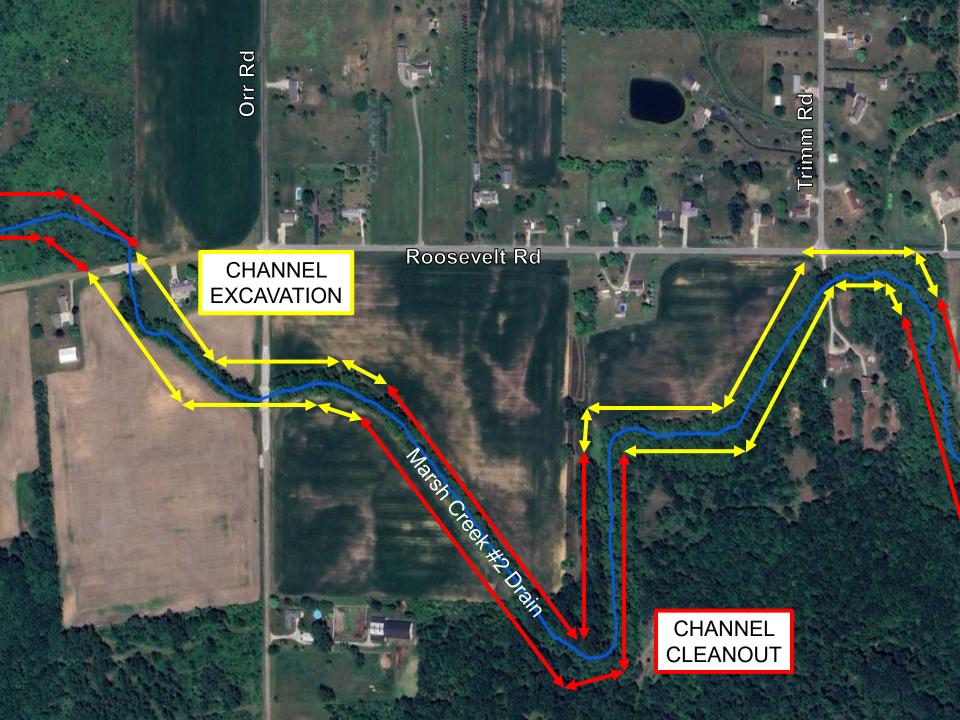
- Clearing and Obstruction Removal
  - Tree clearing
  - Debris removal
  - Sediment bar removal
  - Erosion repair
- Channel Cleanout
  - Sediment is removed from drain bottom only
- Channel Excavation
  - Sediment is removed from bottom, one or both side slopes is regraded





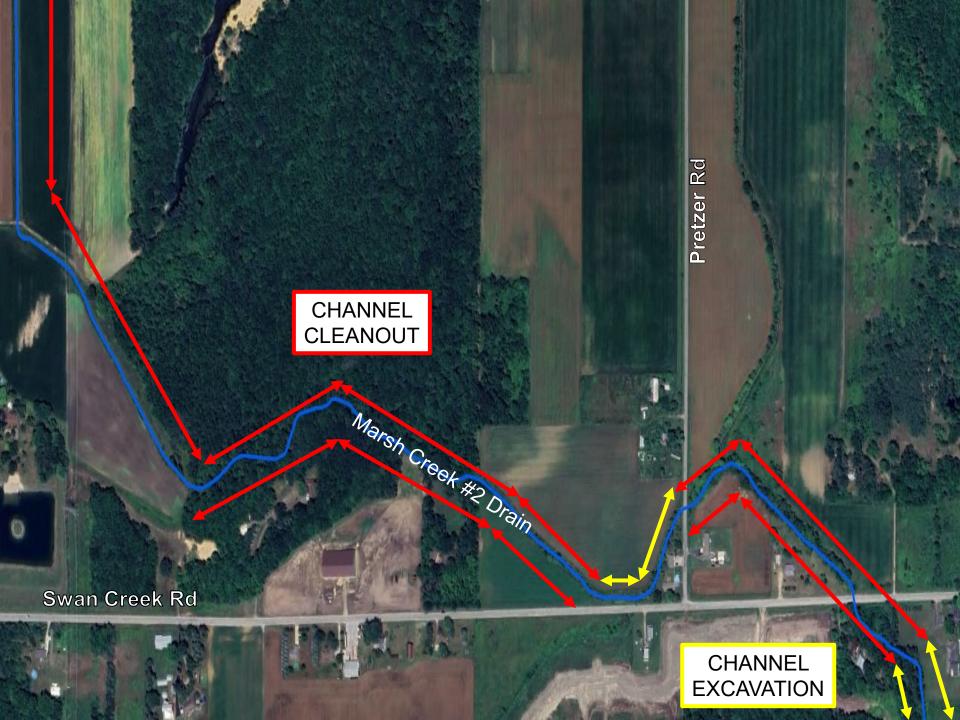


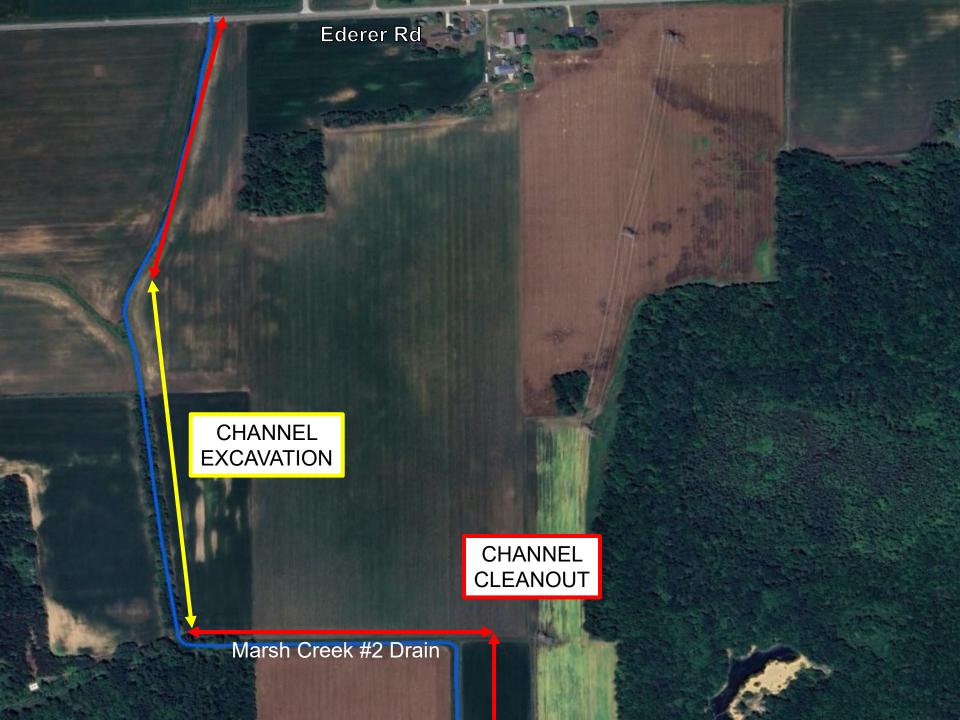




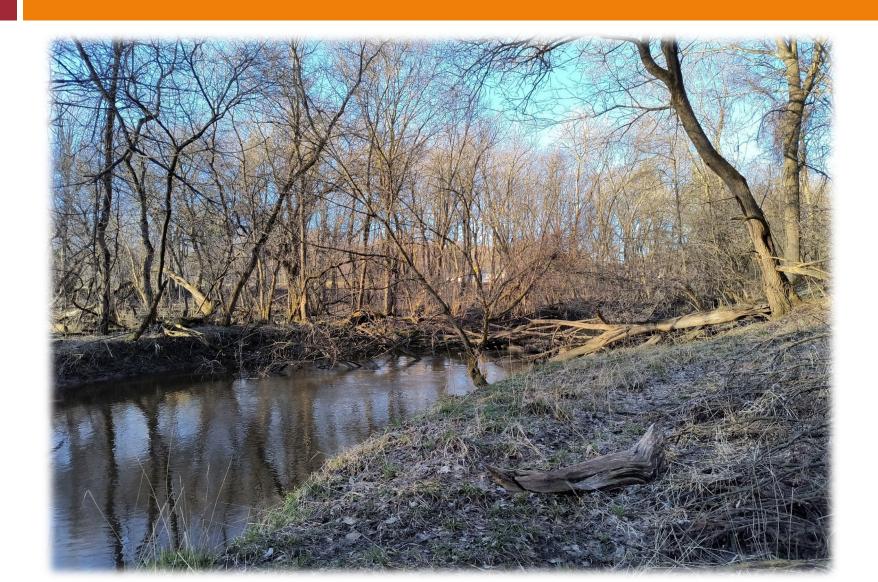








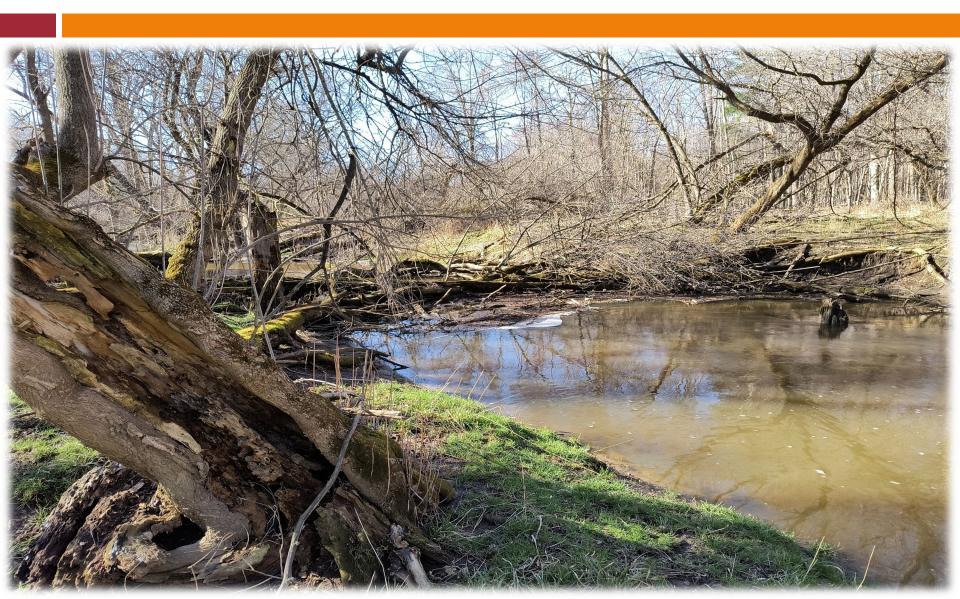
## Teft Rd to M-52 — Log Jam



## Teft Rd to M-52 (cont.) — Log Jam



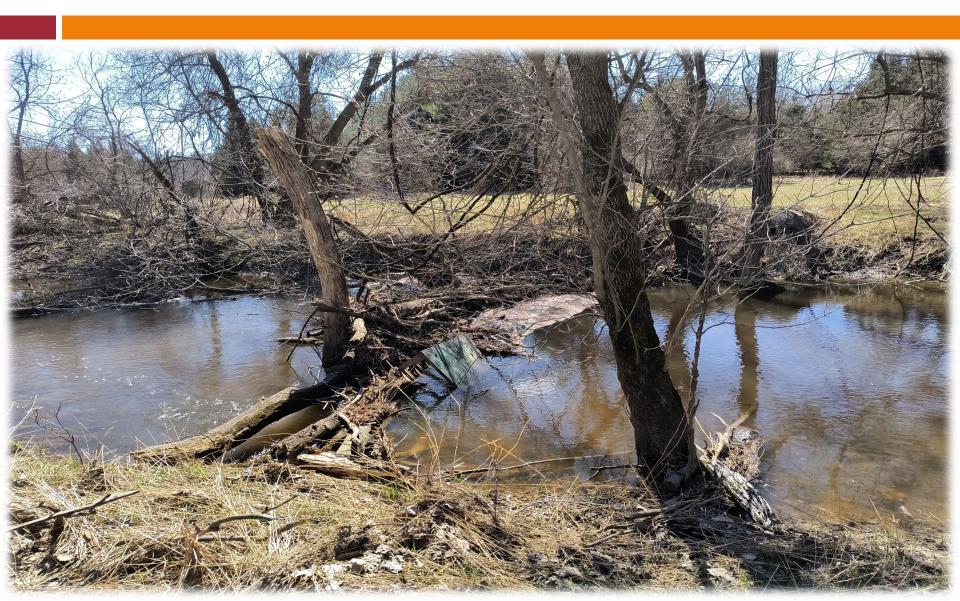
#### M-52 to Spencer Rd — Log Jam



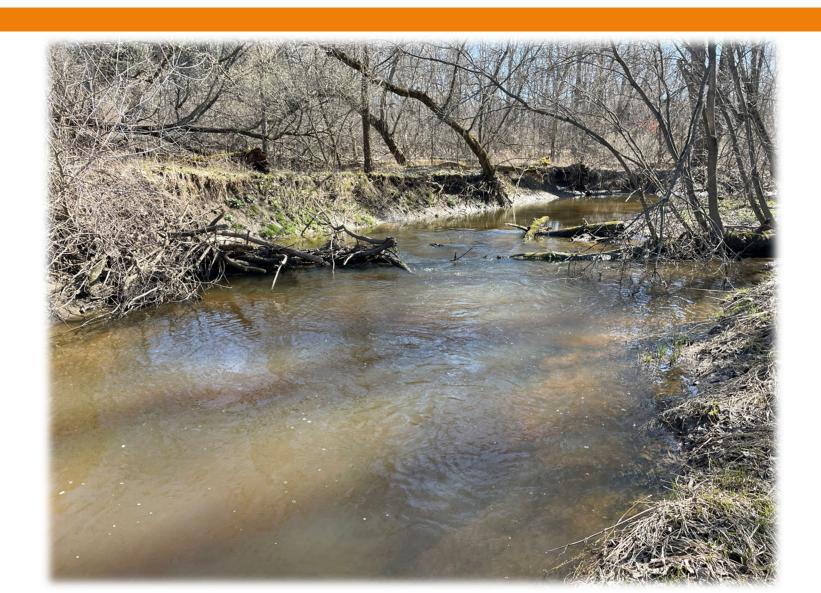
#### M-52 to Spencer Rd (cont.) — Log Jam



## Spencer Rd to Orr Rd – Log Jam



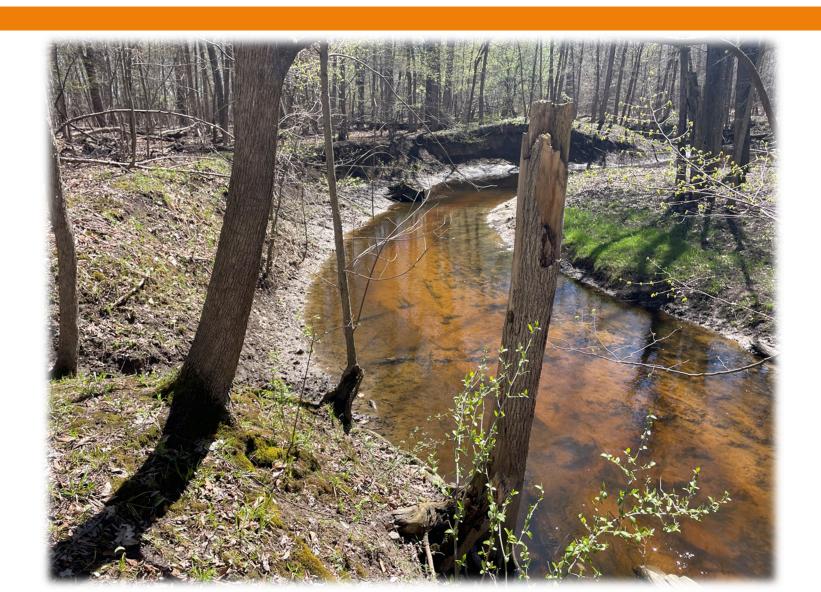
#### Spencer Rd to Orr Rd (cont.) – Bank Erosion



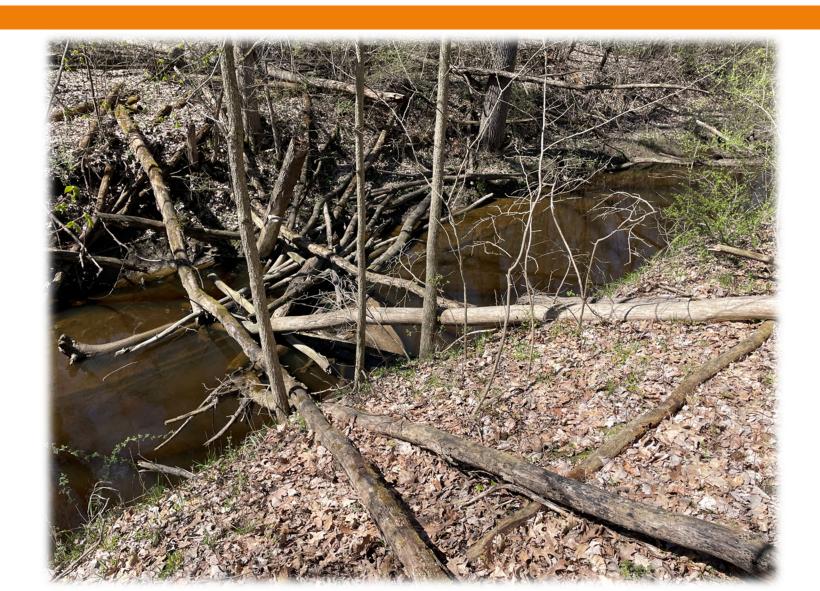
#### Roosevelt Rd to Fordney Rd-Log Jam



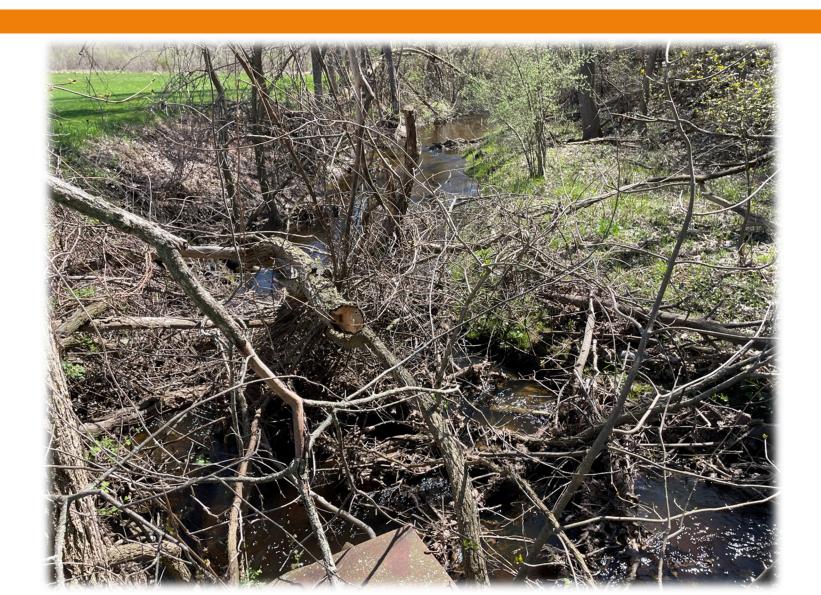
#### Roosevelt Rd to Fordney Rd (cont.) – Bank Erosion



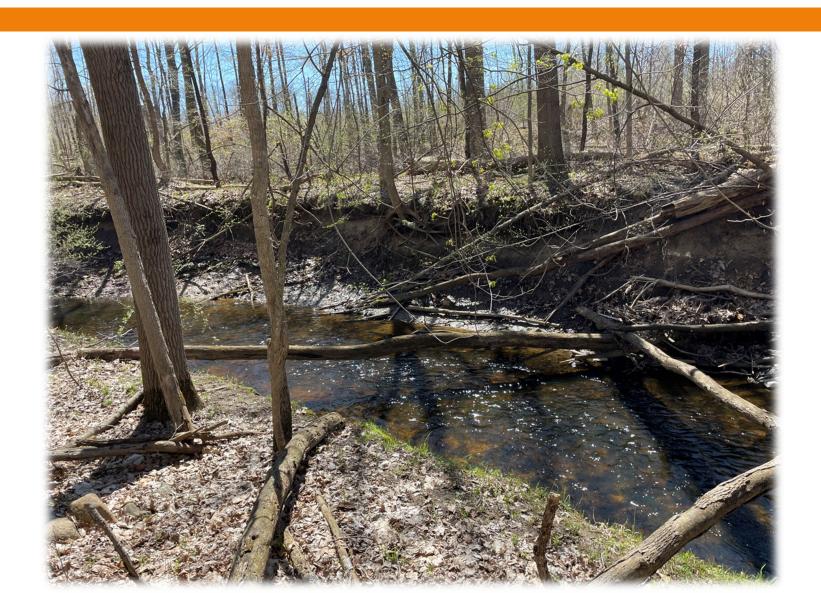
#### Fordney Rd to Swan Creek Rd — Log Jam



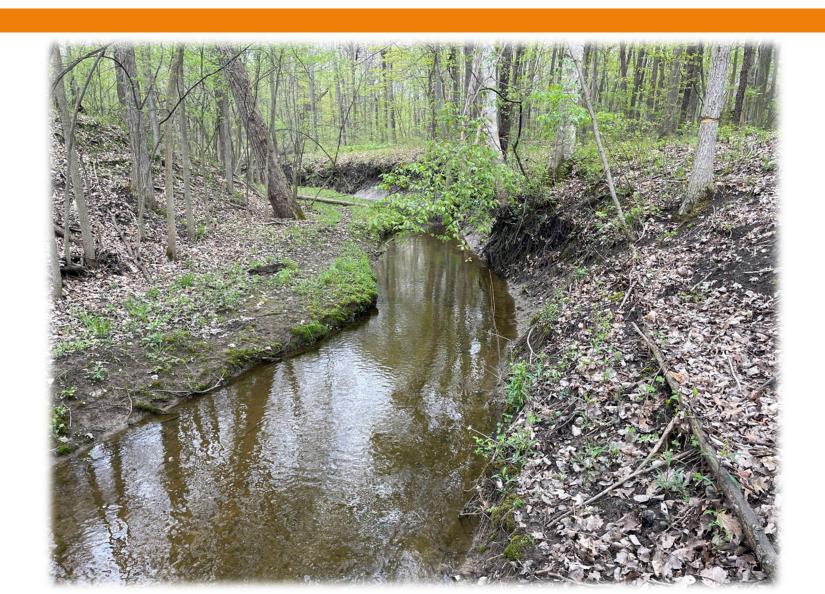
#### Fordney Rd to Swan Creek Rd (cont.) — Log Jam



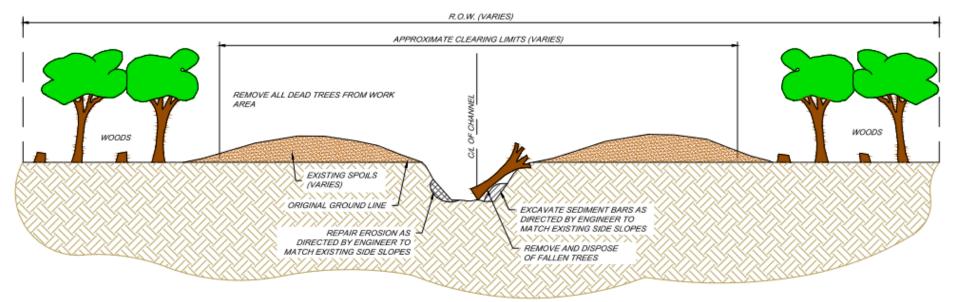
#### Fordney Rd to Swan Creek Rd (cont.) - Erosion



#### Pretzer Rd to Ederer Rd – Erosion



## Site Clearing Detail (One or Both Sides)



SPREAD CHIPS WITHIN DRAIN R.O.W.

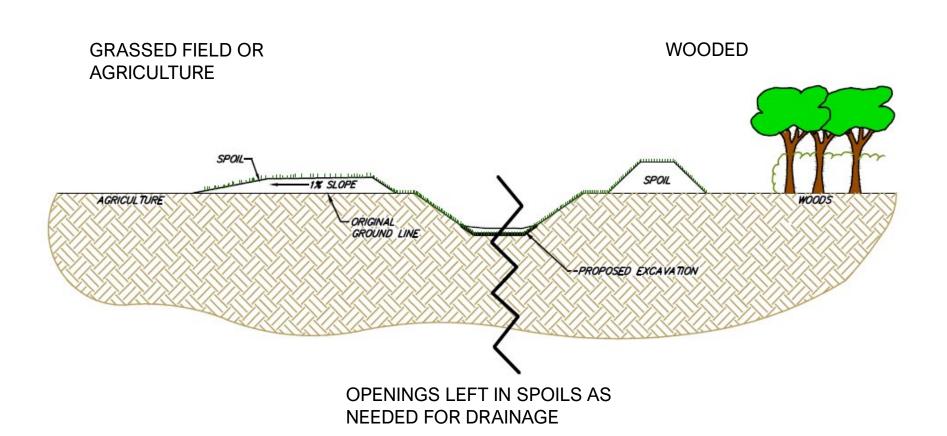
SITE CLEARING WITH MAINTENANCE LANE DETAIL - BOTH SIDES "A"

BURYING OF STUMPS ALLOWED ONLY IN WOODED

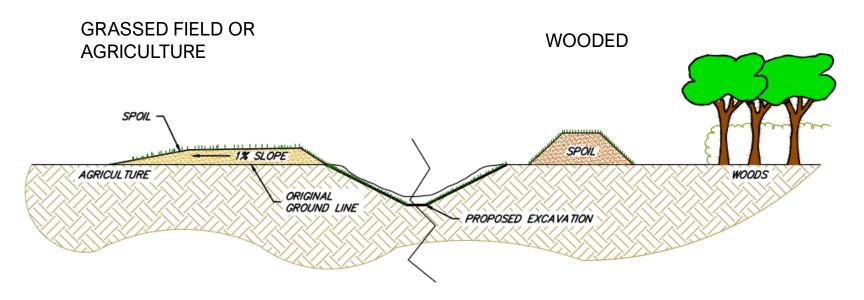
NOT TO SCALE

BURYING NOT ALLOWED IN AGRICULTURAL AREAS

# Typical Channel Cleanout Detail



# Typical Channel Excavation Detail



OPENINGS LEFT IN SPOILS AS NEEDED FOR DRAINAGE

# Other Channel Improvements

#### Erosion Control

- Bank stabilization riprap and erosion control blanket
- Spillways riprap and grass
- Seeding and mulching

#### Tile outlets

- Riprap splash pads
- Repair outlet if in poor condition
- Maintain outlet if in good condition

# **Drain Crossings**

- Total of 22 drain crossings
  - 12 Private crossings
    - Drives, Footbridges
  - 10 Road crossings
    - Roosevelt Road
    - Fordney Road
    - Swan Creek Road
    - Pretzer Road
    - Ederer Road

- Teft Road
- Saginaw Valley Rail Trail
- Graham Road
- Spencer Road
- Orr Road

- Measured length, elevation and size of all drain crossings
- Assessed condition of crossings and headwalls
- Replacement criteria
  - Inadequately sized
  - Crossing is set too high or low, restricting or preventing water flow

- The following slides are a general listing of the crossings to be replaced or removed. If the crossing is not listed no work is planned, or the sediment will be removed from the crossing.
- If you would like details on your individual crossing such as size, length, or material, please speak to us at the end of the meeting.

- Crossings to be Replaced w/ New Culvert
  - No. 21 Jungnitsch, F. & D.
  - No. 22 Ederer Road

- Crossings to be removed only
  - No. 11 Zelinko Farms Realty LLC
  - No. 14 Harris, J JR & S/ Coven, A





## Cleanup and Restoration

- All spoils along lawn areas will be hauled.
- All disturbed lawn areas will be landscape graded and seeded.
- All trees cut during the project to access work on the drain will be disposed of via burning, chipping or hauling off site, unless the landowner requests to keep the wood.
- Stumps from cut trees in mowed areas will be ground below the surface, covered with topsoil, and seeded.

# Cleanup and Restoration (cont.)

- Trees and shrubs will be removed as needed for construction to establish maintenance lane
- If needed, mailboxes will be temporarily relocated and reinstalled as needed for construction
- All driveways and county roads shall be restored in kind
- Local traffic shall be maintained at all times

### **Encroachment Items**

- Sheds, Deer blinds, Wood piles, Other items in Right-of-Way
  - Landowners to remove sheds, deer blinds, or other items within the drain right-of-way in advance of construction
    - SCPW to notify individual landowners with items in drain right-of-way, via letter
  - Any items left within the drain right-of-way will be removed and stockpiled as needed for construction
  - Reinstallation of removed items only allowed outside of the drain right-of-way and is the responsibility of the landowner

### **Limited Access Areas**

- SCPWC has notified individual landowners via letter where additional easements have been identified as necessary
  - If you have not already, Please contact SCPWC if you've received said letter
- Any property owner willing to provide additional access through property during construction or after, please contact SCPWC

# Tentative Project Schedule

- Bid Project Early January, 2025
- Day of Review of Apportionments Early February, 2025
- Contractor Notice to Proceed June/July 2025
- Completion Fall 2026
- A formal Notice will be mailed with dates for the Day of Review of Apportionments

# **Estimated Project Cost**

- Estimated Overall Cost: \$2,800,000
  - Includes:
    - Site Clearing
    - Open channel improvements
    - Crossing repairs and replacements
    - Erosion control
    - Cleanup and restoration
    - Utility coordination
    - Engineering, survey and design
    - Financing fees
    - Construction staking and inspection
    - Contingencies
  - Final project cost determined by Contractor's bid

## **Questions or Comments?**

