



**Cheboyganing Creek
Intercounty Drain**
Hearing of Practicability
September 17, 2019 @ 10:00 a.m.
Heritage Theatre – Dow Event Center



Engineering Report Agenda

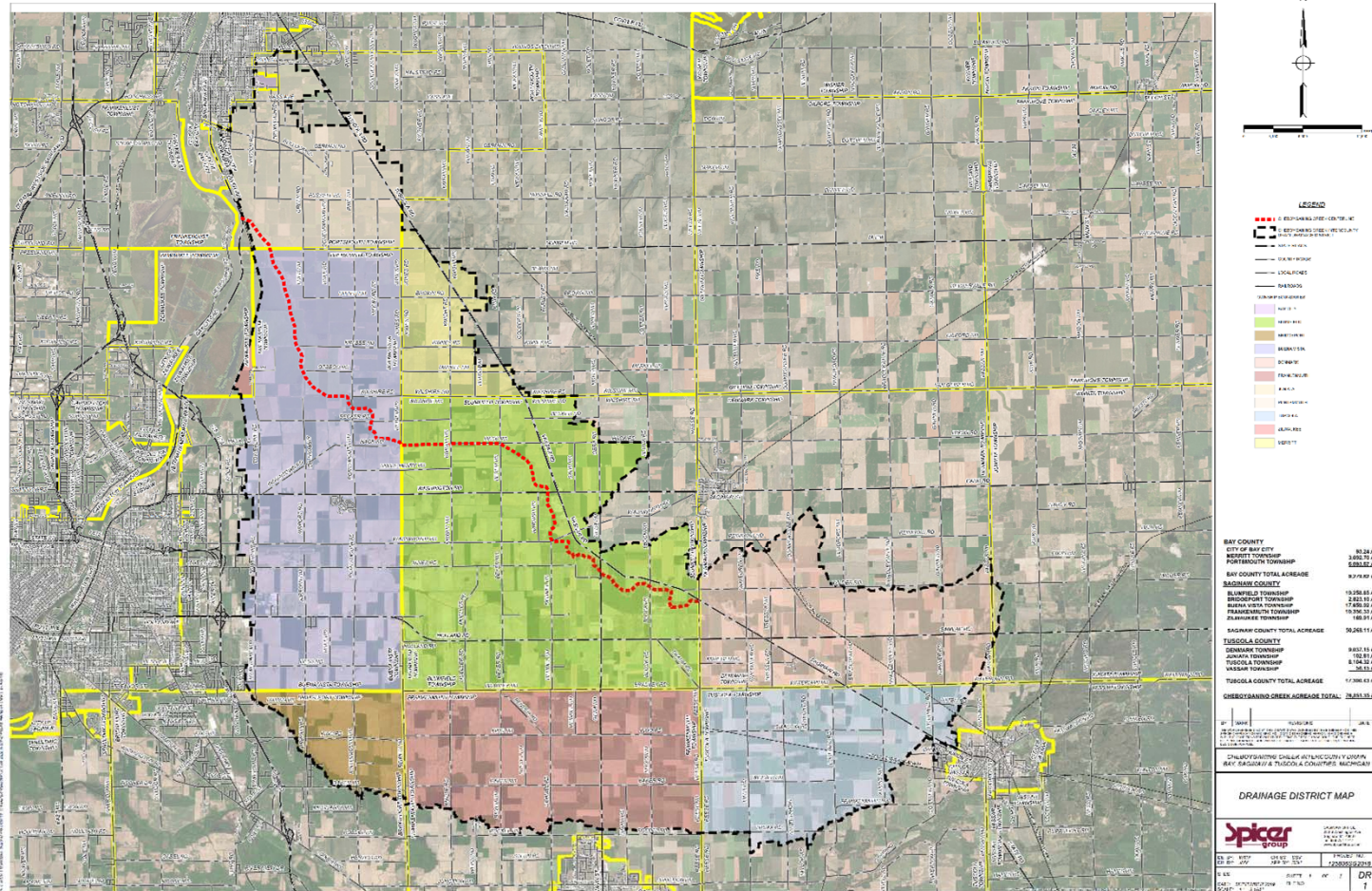


- Drain District and Drain Location
- Summary of Acreage in Drainage District
- History of Drain
- Summary of 2000 Engineering Study
- 2019 Inspection

Drain District and Drain Location

CHEBOYGANING CREEK INTERCOUNTY DRAIN

BAY COUNTY DRAIN COMMISSIONER - JOSEPH L. RIVET
 SAGINAW COUNTY PUBLIC WORKS COMMISSIONER - BRIAN J. WENDLING
 TUSCOLA COUNTY DRAIN COMMISSIONER - ROBERT J. MANTEY
 MICHIGAN DEPARTMENT OF AGRICULTURE AND RURAL DEVELOPMENT - BRADY L. HARRINGTON, P.E.



Summary of Acreage in Drainage District



□ Saginaw County	50,268.11 Ac.
□ Tuscola County	17,300.43 Ac.
□ Bay County	<u>9,279.61 Ac.</u>
□ Total District Acres	76,851.35 Ac.
□ Length of Drain	80,339.85 Ft. (15± Miles)

History of Drain

- ▣ Established in 1884
- ▣ Last major cleanout/reconstruction 1960-1962
- ▣ Approximately 15 miles in length
 - Outlet at Saginaw River
 - Upper end at Reese Road
- ▣ Approximate 77,000 acre Drainage District
 - Boundary update in 2018
- ▣ Land use primarily agricultural, some residential and commercial.
- ▣ Right-of-Ways
 - Station 0+00 to 110+00 – 500 feet on side of drain or to centerline of dyke, if dyke exists
 - Station 110+00 to 339+00 – 150 feet on each side of the drain centerline.
 - Station 339+00 to 806+33 – 100 feet on each side of the drain centerline.

History of Drain



- ▣ Practicability Hearing was held in 1998
 - Practicability was found and an Engineering Study was completed.
- ▣ Hearing of Necessity held in 2000
 - Project to improve drain was found not necessary

2000 Engineering Study



- Hydrologic and Hydraulic Analysis
 - Elevation survey completed
 - 10-year design flow rates obtained
 - Lake Huron and Saginaw River water levels review
 - Computer model of drain developed
- Findings
 - Flooding predicted near Portsmouth and Becker Roads
 - Flooding predicted between Wadsworth and M-15
 - Existing bridges adequate to convey 10-year
 - Sediment, erosion and obstructions in drain

2000 Engineering Study



- Engineering Conclusions from 2000 Study
 - ▣ Dredge lower 4.5 miles between Saginaw River and Portsmouth Road.
 - Estimated cost in 2000 - \$4 Million
 - ▣ Reconstruct upper 10.5 miles from Portsmouth Road and M-15
 - Re-establish bottom width
 - Slope banks
 - Clear trees and log jams
 - Install erosion control structures
 - Install berms/dykes near Portsmouth
 - Estimated cost in 2000 - \$2.5 Million

2000 Engineering Study



- Pump Station

- A study was completed to analyze installing a pump station near the outlet of the Cheboyganing Creek.
- It was determined, at the time, constructing a new pump station was not practical.

2019 Inspection of the Drain



- 2019 Inspection
 - ▣ Visually inspected the upper 10.5 Mile of the drain from Portsmouth Road to M-15.
 - ▣ Bank erosion, log jams and overgrowth of trees and brush in the drain right-of-way observed

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