

HOP DRAIN

Board of Determination

Ottawa County Water Resources Commissioner

Joe Bush

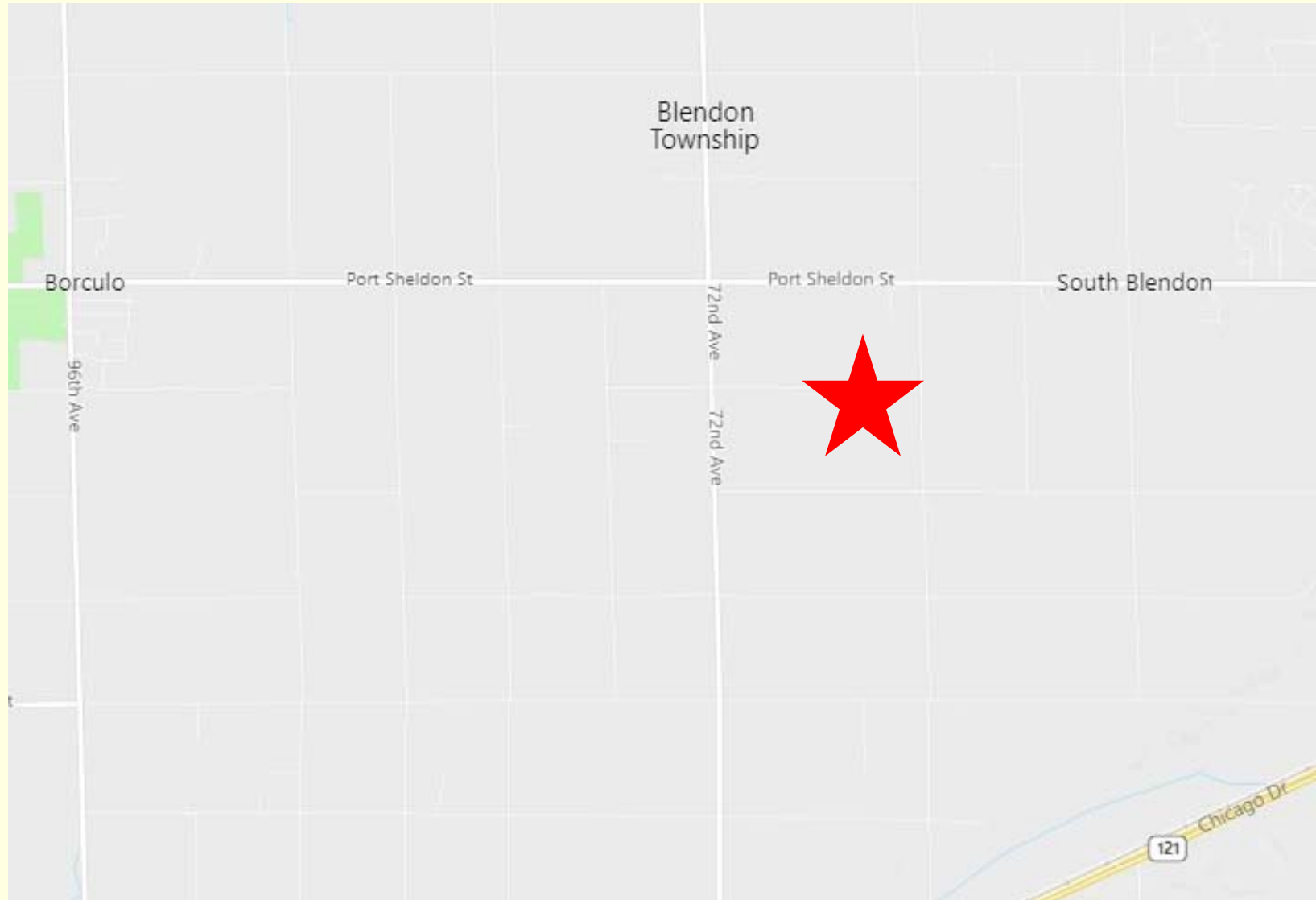
November 19, 2019



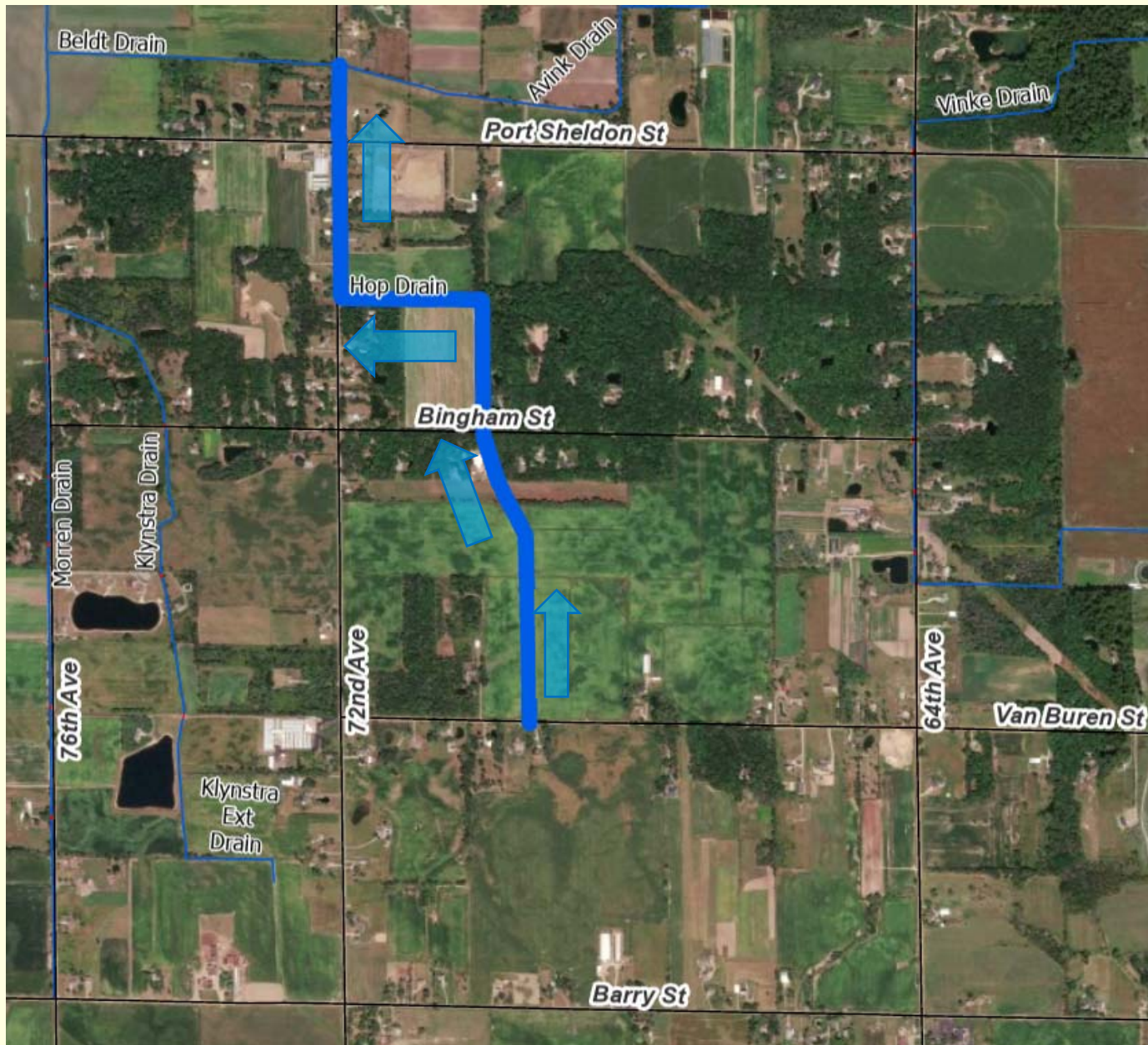
Outline

- Location
- Background
- Drain Condition/Inspection
- District Boundary
- Questions

Location



Hop Drain



Background/History

- Open Drain System
- Watershed – 800 Acres/1.26 Sq. Mi.
- Serves a Mixture of Land Use Types
 - Undeveloped/Forest
 - Agricultural

Outlets to the Beldt Drain



General Condition – Facing Downstream



Port Sheldon St. – Downstream Face



Port Sheldon St. – Culvert



6285 72nd St. – Facing Upstream



6285 72nd St. – Upstream Face



Bend to the East at 72nd St.



Facing Upstream of Bend at 72nd St.



Bingham St. Culvert – Facing Downstream



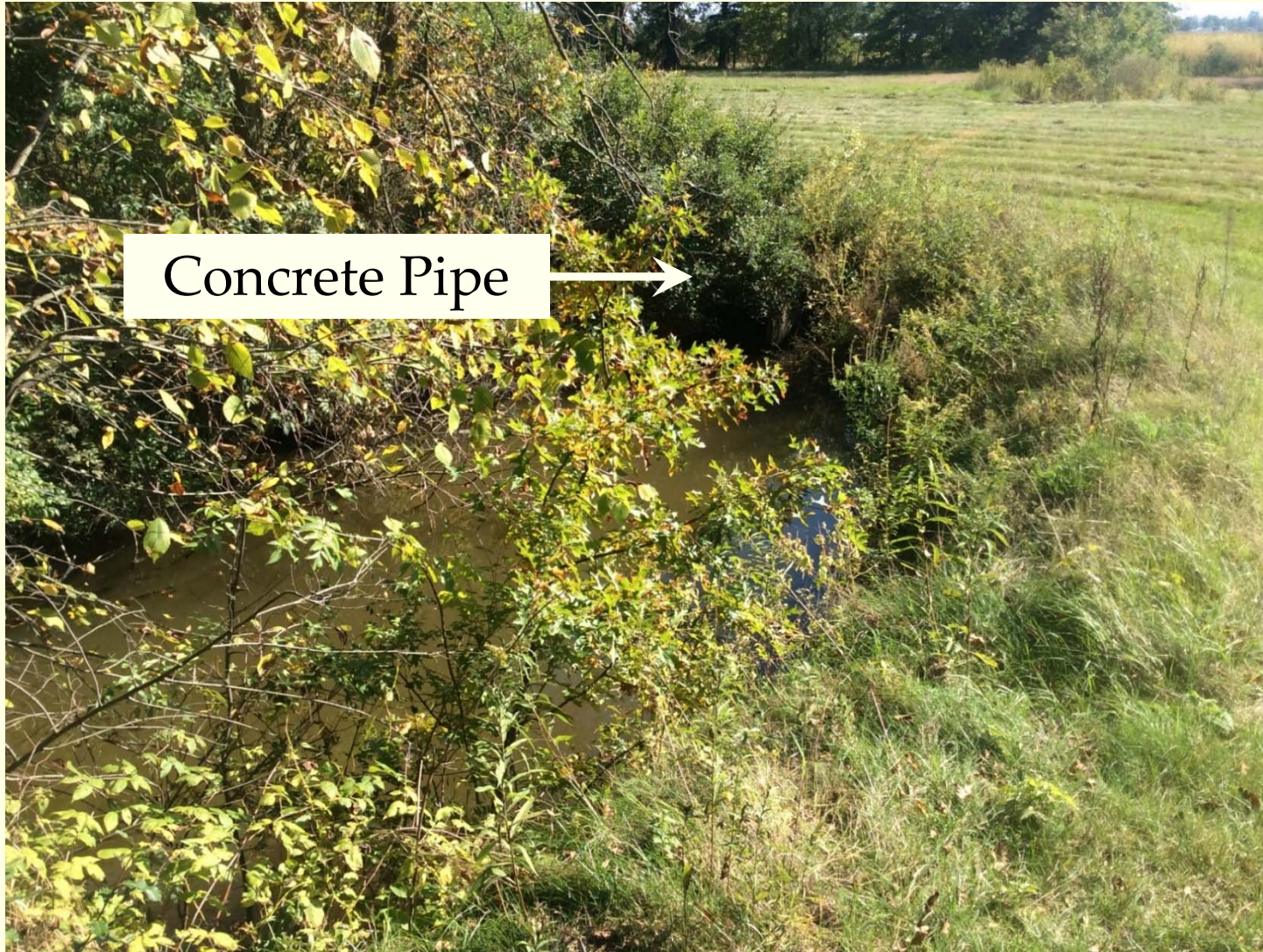
Bingham St. Culvert



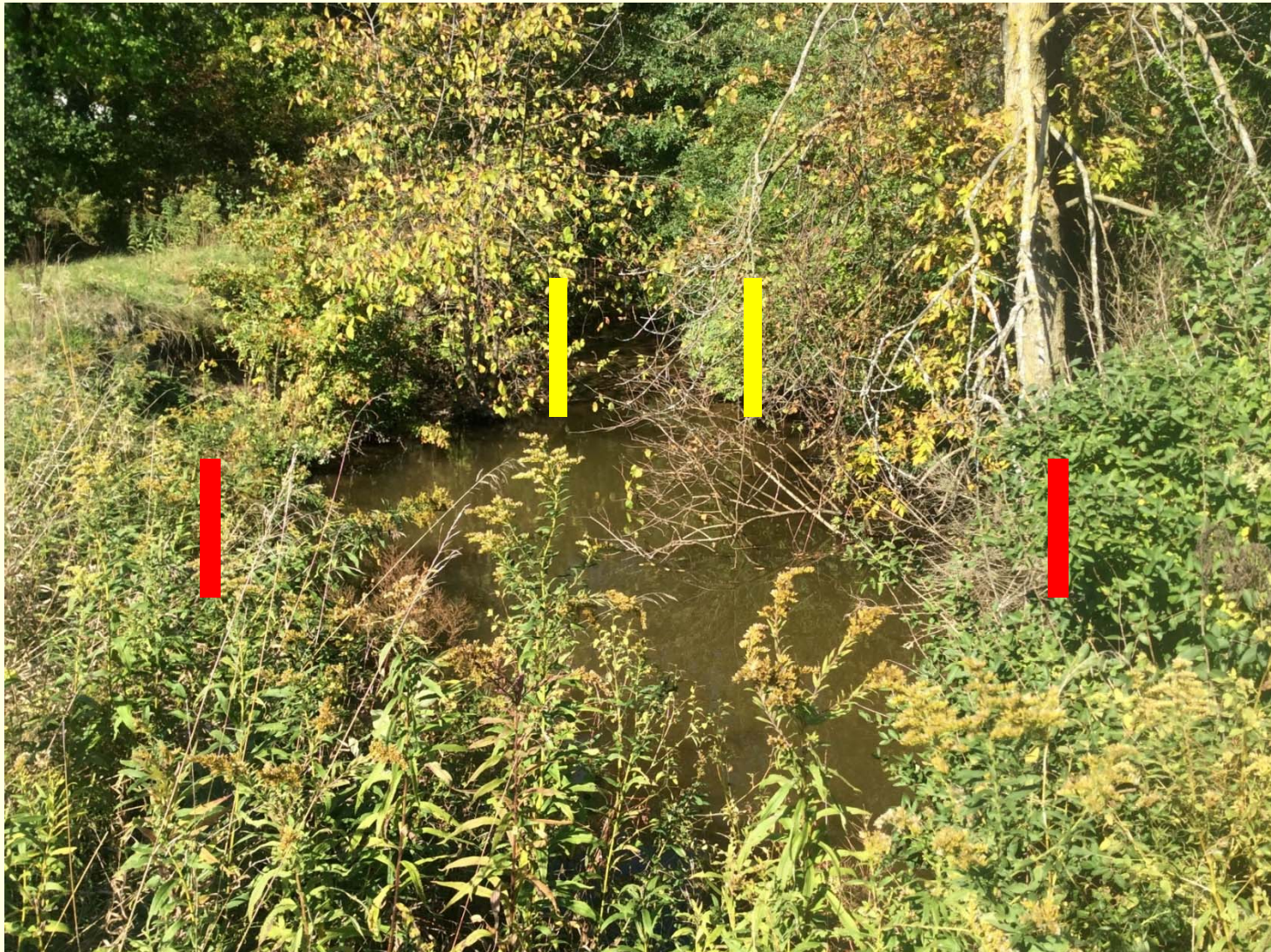
Vegetation Upstream Bingham St.



Private Crossing – Facing Upstream



Scour Hole / Undersized Crossing – Facing Downstream



Joint / End Failure



Joint / End Failure



Van Buren St. – Downstream Face



Van Buren St. – Downstream Face



Van Buren St. – Facing Downstream



High Water Mark

Van Buren St. – Facing Upstream



Van Buren St. – Facing West



Localized Flooding



Shed – High Water Mark



Shed – High Water Mark

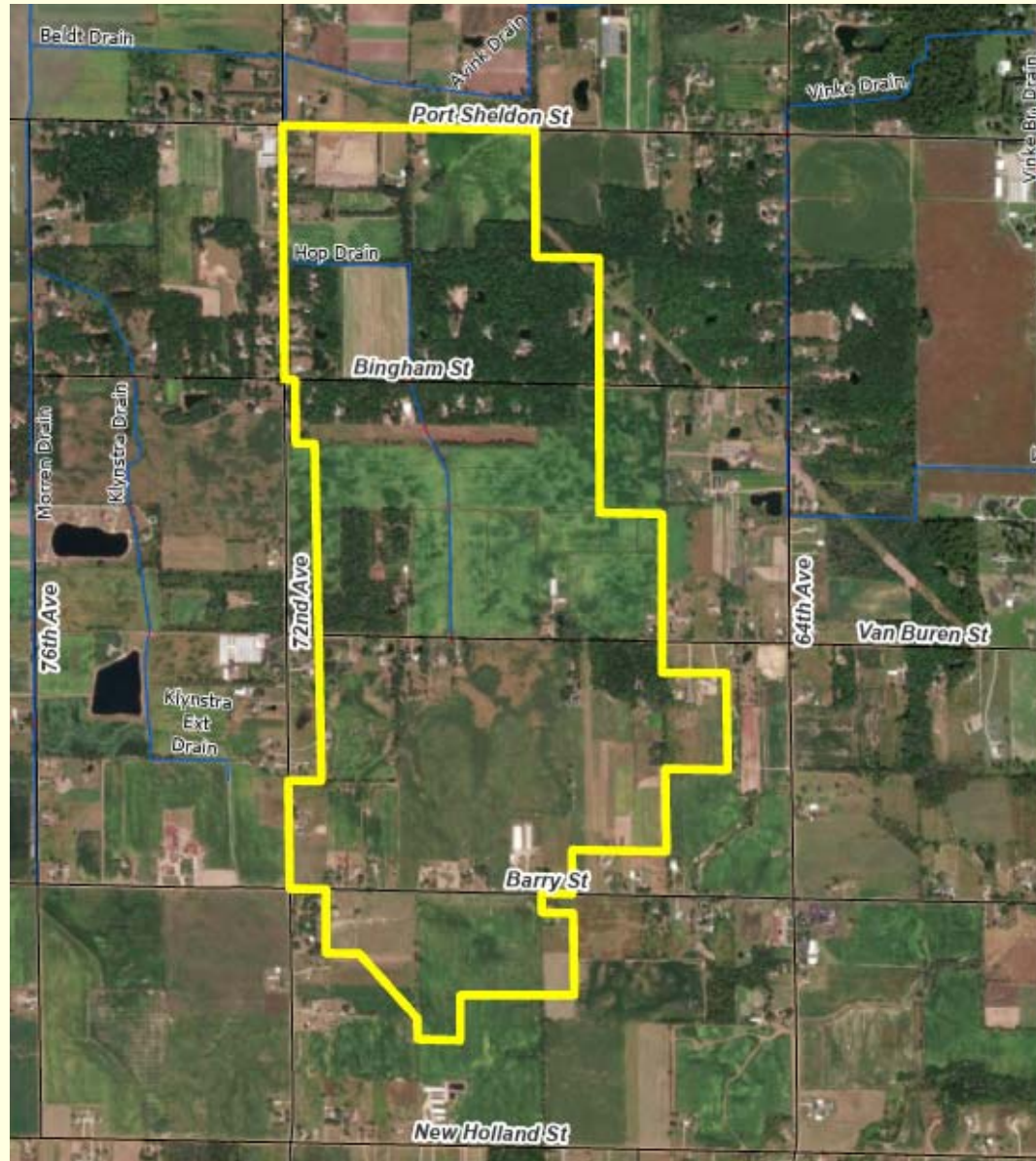


High Water Mark

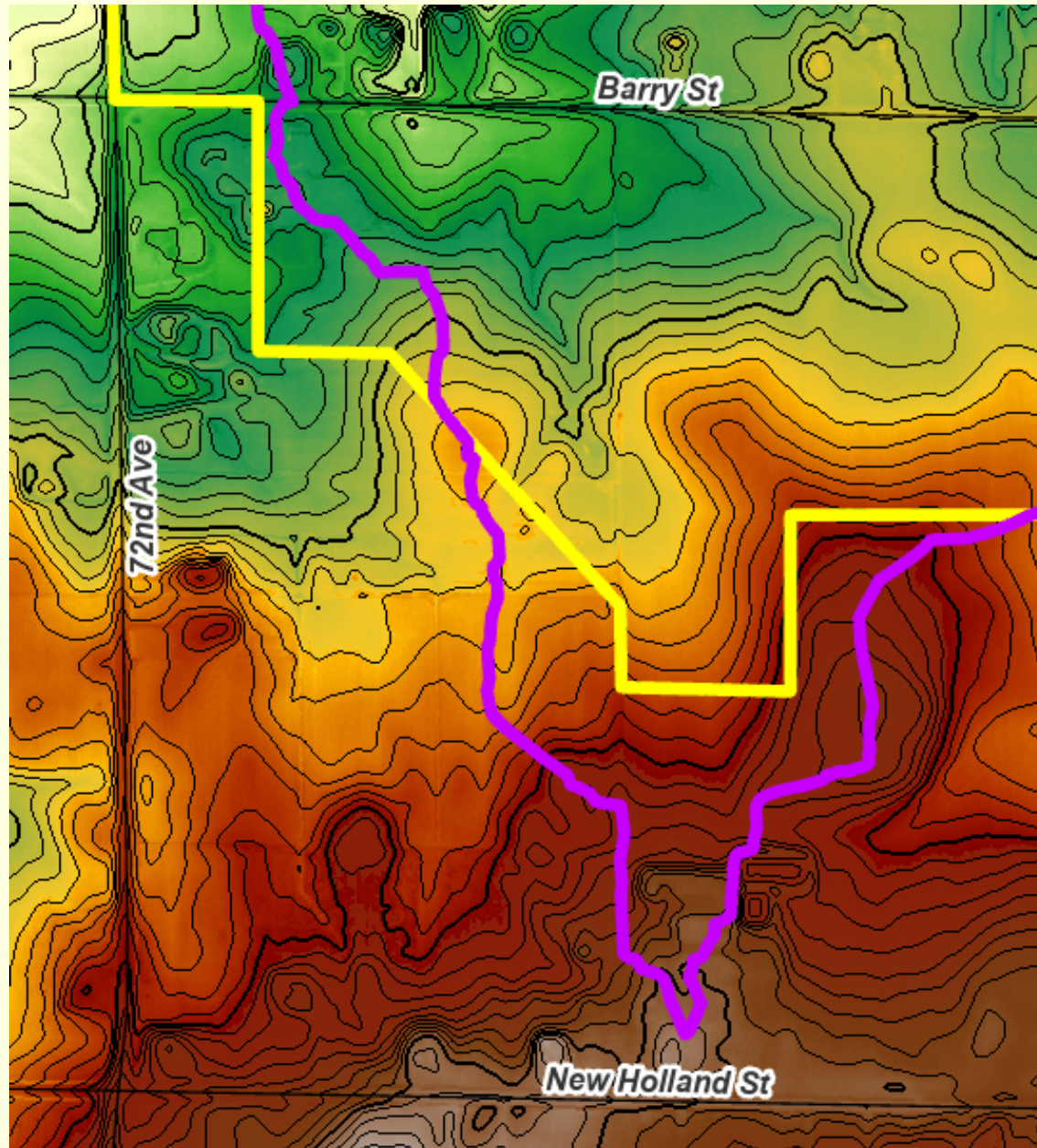
Drain Condition

- Overall Condition
 - Areas Of Erosion On Channel Banks Along 72nd Street – Steep Slopes
 - Vegetation Is Beginning To Encroach On The Channel
 - Culverts – Several Steel Culverts Are Approaching The End Of Their Service Life
 - Several Culverts Are Undersized
 - Exposed Joints on Concrete Culvert Limit Capacity
 - Localized Flooding Van Buren Street

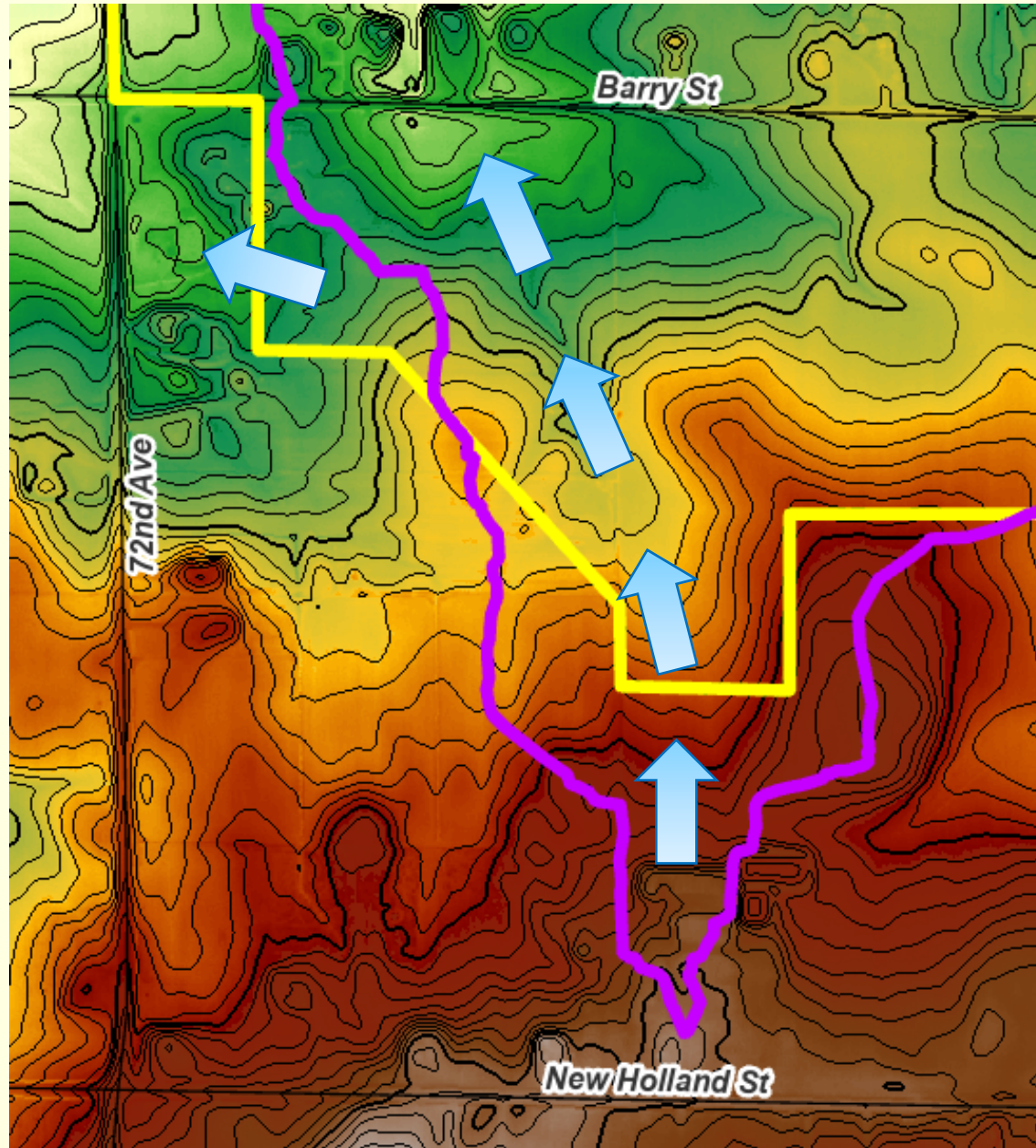
Existing Drainage District Boundary



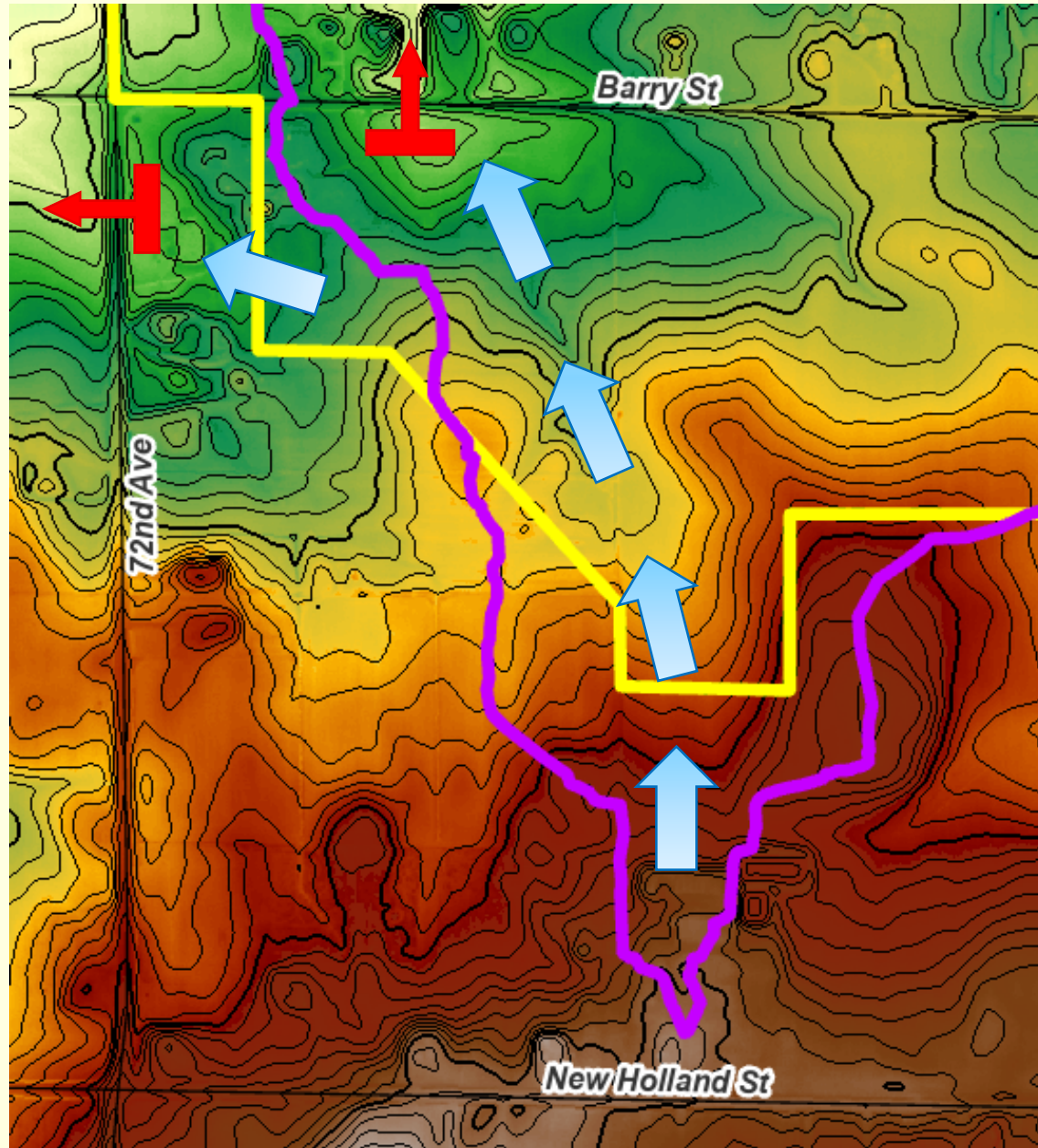
Field Checking Example



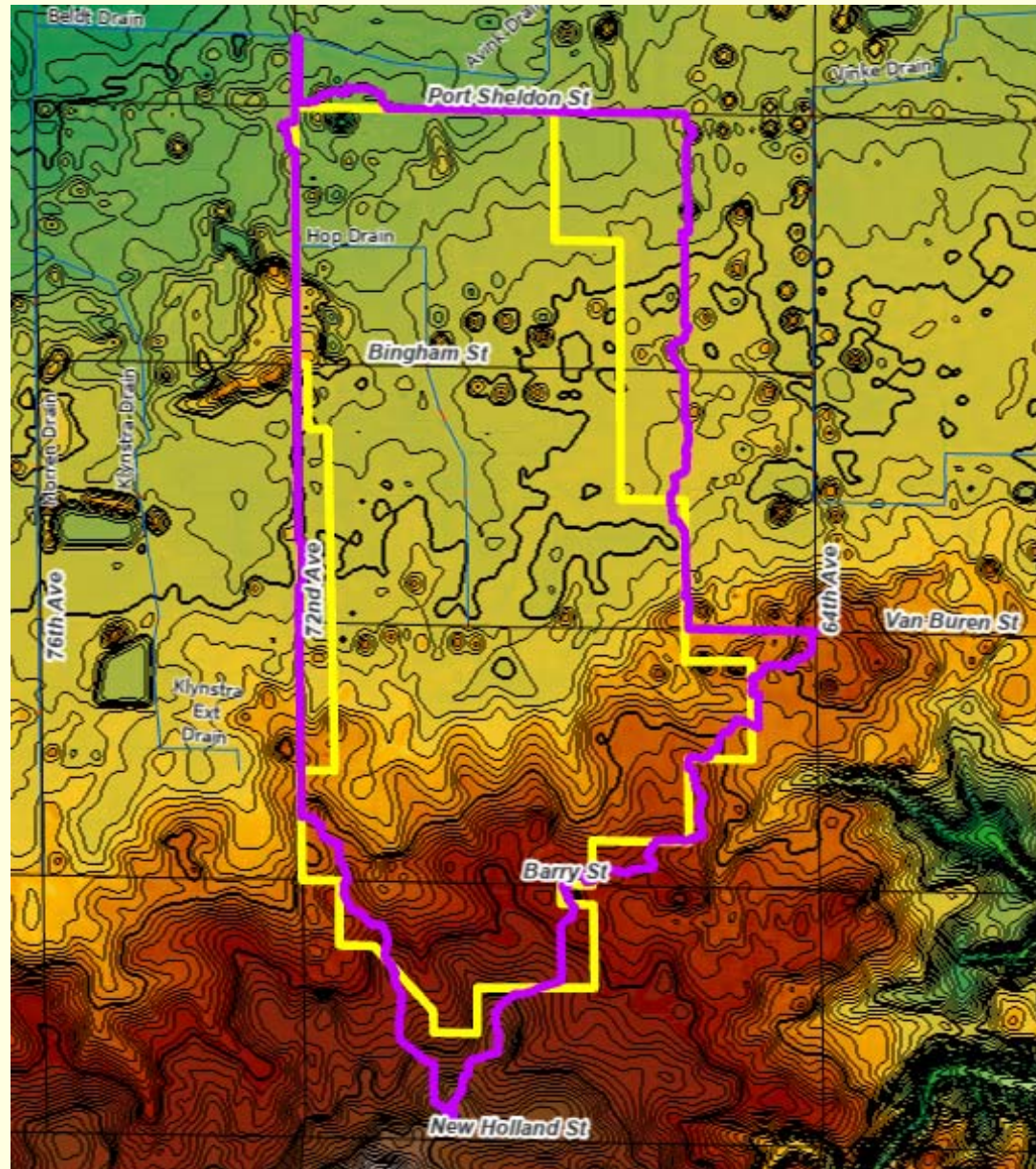
Field Checking Example



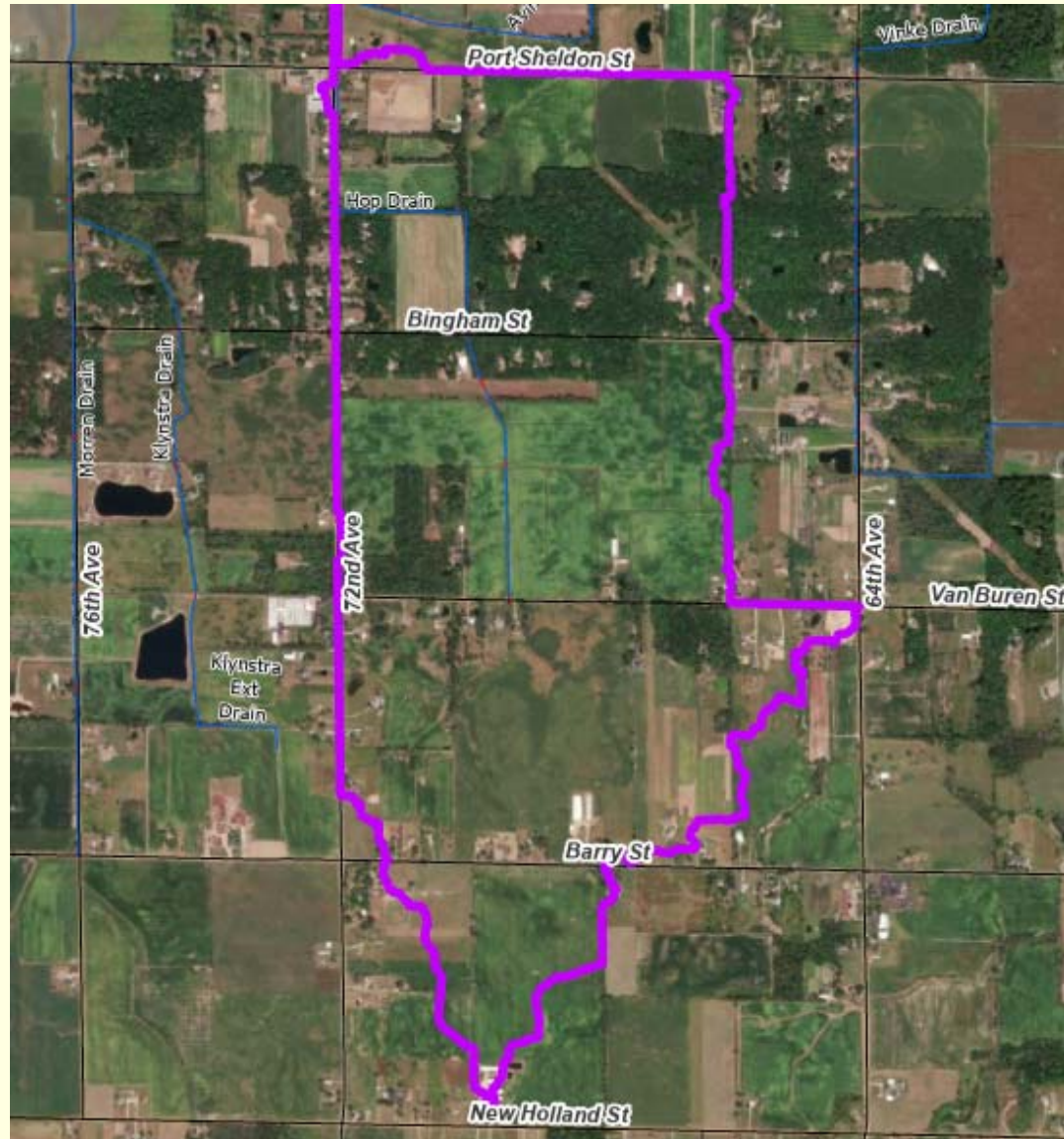
Field Checking Example



Existing & Proposed Boundaries



Proposed Drainage District Boundary



Ottawa County Water Resources Commissioner

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