

Swift Coulee/Marshall County Ditch #3 Project Work Team Meeting Middle-Snake-Tamarac Rivers Watershed District



Google Earth 2015 Imagery

Hwy 75 Swift Coulee

**February 16, 2017
Bremer Bank Warren, MN**

Agenda

Middle Snake Tamarac Rivers Watershed District Swift Coulee/Marshall CD #3 Project Work Team Agenda

Thursday, February 16, 2017 at 10am

Bremer Bank Basement
Warren, MN

10:00 Begin Meeting with Introductions (Brent Silvis, MSTRWD Administrator)

10:10 Presentation Houston Engineering, Inc. (Tony Nordby, P.E.)

- Swift Coulee/Marshall CD #3 Project Review
 - Re-Cap of Activities Since August meeting
 - Field Survey
 - Sediment Plan (Submitted to DNR Dec. 2016)
 - DNR Response
- Resource Concerns
- Possible Project Types
- Possible Project Funding Sources
- Next Steps
- Purpose/Need
 - Review of P/N (USACE)

10:50 Other Discussion/Questions

11:30 Wrap Up

- Action Required Before Next Meeting
- Next Meeting....to be determined

11:45 Adjourn

WORK TEAM CONVERSATION GROUND RULES:

1. Everyone participates; no one dominates.
2. There is not one "right" answer.
3. Keep an open mind.
4. Listen carefully to others.
5. Help keep the discussions on track.
6. Try hard to understand the views of those with whom you disagree.
7. Ask questions if you are uncertain of the meaning of someone else's comments.
8. It is okay to have friendly disagreements – everyone has a right to his/her own views.
9. To help bring closure to a discussion, use the "I can live with it" rule.



Recap of Previous Meeting

- Last meeting was August 10, 2016
 - Discussions
 - PWT purpose, Roles, & Responsibilities
 - Recap of February 26, 2009 PWT meeting
 - Watershed Setting & Known Resource Concerns
 - Minnesota DNR Protected Water

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**MIDDLE-SNAKE-TAMARAC
RIVERS WATERSHED DISTRICT**

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**Minutes of the MSTRWD
Swift Coulee / County Ditch #3 Project Work Team
August 10, 2016 Bremer Bank Meeting Room**

In attendance were:

Landowners

Larry Effel, Stuart Nordling, Marshall Fuks, Cindy Anderson, Mark Yutzzenka, Jim Vansickle, David Nelson

Agency Representatives

Stephanie Klamm (DNR), Craig Jarnot (ACOE), Denise Oakes (MPCA), Phil Talmage (DNR), Matt Waterworth (NRCS), Darren Carlson (SWCD), Matt Fischer (BWSR)

MSTRWD Representatives

David Bakke, Ben Kleinwachter, Roger Mischel, Danny Omdahl, Brent Silvio

Houston Engineering, Inc. (HEI)

Ron Adrian and Tony Nordby

Tony Nordby led the meeting, beginning with a slide show giving an overview of the project team process, a recap of the progress to date, a description of the problems being addressed (primarily ditch flooding) and the challenges involved.

A discussion followed. Comments included:

Ben Kleinwachter: Pointed out that the benefited area of CD #3 benefited area is much less than the drainage area. There is a need for residents in the east and west parts of the drainage area to work together. He also pointed out that the ditch jurisdiction is Marshall County's and they are responsible for maintaining it. He added that reviewing the culvert inventory would be useful.

Jim Vansickle: He stated that the coulee never worked well. The lay of the land flattens out near sections 2-1 Warrenton. The flow through U.S. 75 is a problem. A survey to discover the extent of sediment blockages is needed.

Stuart Nordling: The ditch used to work better than it does now. Previous work, including the cleaning of numerous culverts by the County in 2015 and dozing of the ditch in 1988, improved drainage.

Mark Yutzzenka: Sediment and cattails within the coulee and bank erosion are problems.

David Nelson: Other ditches in the area are often empty, with CD #3 still containing a lot of water. The driveway/spoil of Joe Rominski is in need of repair.

STEVEN W. HOFFER, JOHN W. NELSON, DAVID BAKKE, JIM VANSICKLE, ROBERT KOVAC, ROGER MISCHEL, TONY NEBELER
DISTRICT SECRETARY, PRESIDENT, VICE PRESIDENT, SECRETARY, TREASURER, ASST. SECRETARY, MANAGER, WFOLE GROUP
MARSHALL COUNTY, MARSHALL COUNTY, MARSHALL COUNTY, MARSHALL COUNTY, MARSHALL COUNTY, MARSHALL COUNTY, POLK COUNTY

Stephanie Klamm: Clarified the process by which some waters were designated protected waters in the late 1970s. Any cleaning of the Swift Coulee within the protected waters portion would require a DNR permit and anything beyond a cleaning within CD #3 would require a DNR permit.

Ron Adrian: Explained that 2 year events were defined using a regression equation, in response to a question asked by Ben. Warned against shared responsibility of a system between District and County.

Danny Omdahl: CD #3 has a Marshall County Shoreland designation, therefore it is required to have a 50' buffer strip. Correspondence was sent to Marshall County to seek what they have recorded for floodwater damages to their ditches, roads and infrastructure. The same request will be sent to the townships.

Matt Fischer: Because there is a road on the north side of CD #3, a grass strip is not required there. Pointed out that there are sediment concerns in the waterways.

Larry Effel: Pointed out that pumping of water by farmers during high water causes problems.

The following decisions were made:

Jim Vansickle, Mark Yutzzenka, David Nelson agreed to be Project Team Volunteers.

Tony Nordby (HEI) stated that there is some local interest in cleaning out portions of the protected Swift Coulee that is within the benefited area of CD #3. He also stated that LIDAR data may be useful for some of the area, but surveying of the actual channel will be needed for the DNR permit process. The District will survey. The District will need to send letters to landowners to gain access. Stephanie Klamm (DNR) said new cross-sections will be needed. She will work with District staff to formulate a surveying plan. Denise Oakes will check for MPCA impairments within the system. Tony Nordby will aid the district in developing some cost estimates of the survey.

A date will be set for the next meeting, in late October, due to harvest. Date will be arranged which works for volunteers and agencies. Townships and counties will be invited.

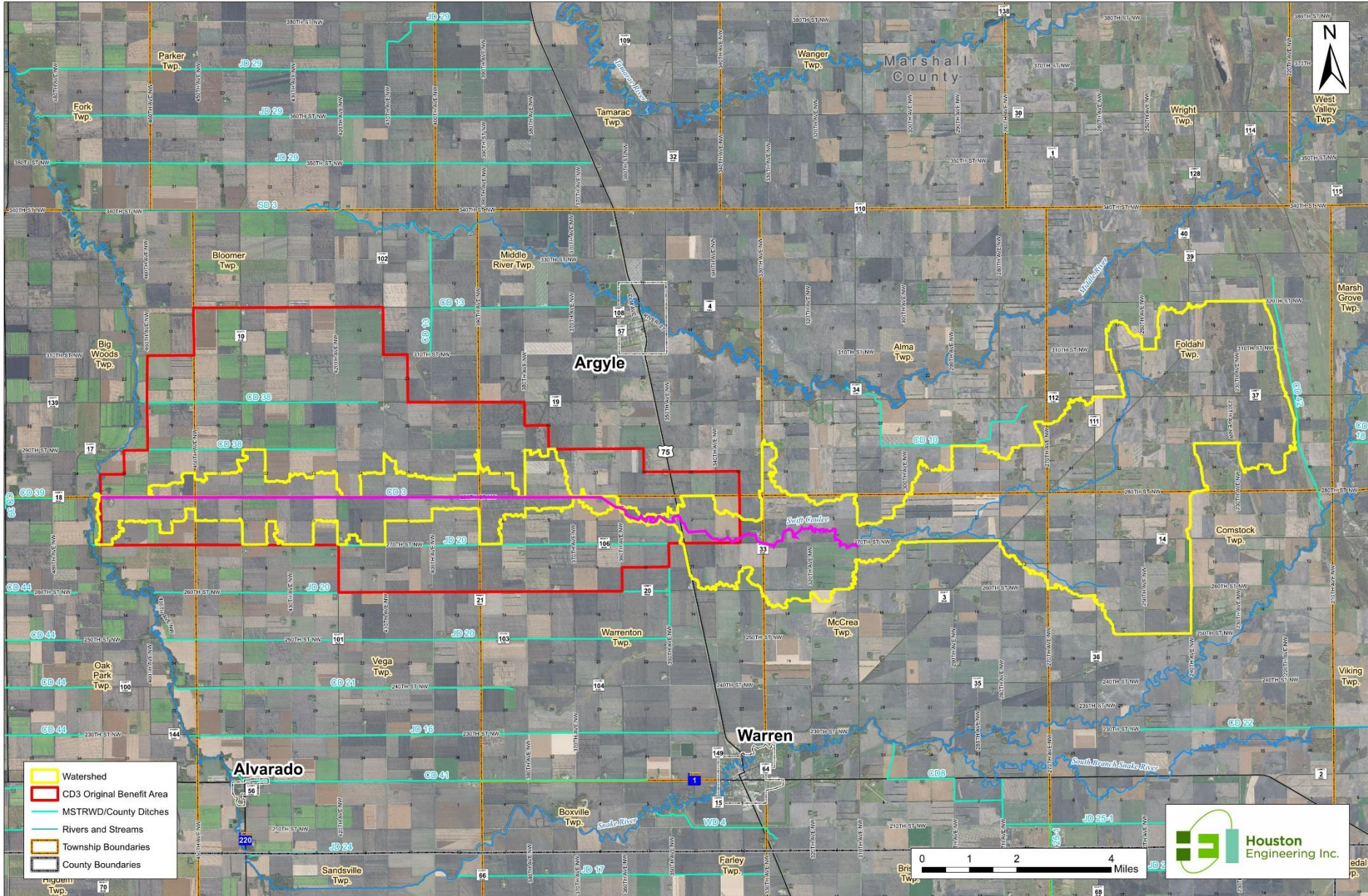
Ben asked if the agencies saw any problems to what was proposed. None did.

Brent Silvio

Brent Silvio
Administrator
Acting Secretary



Site Map

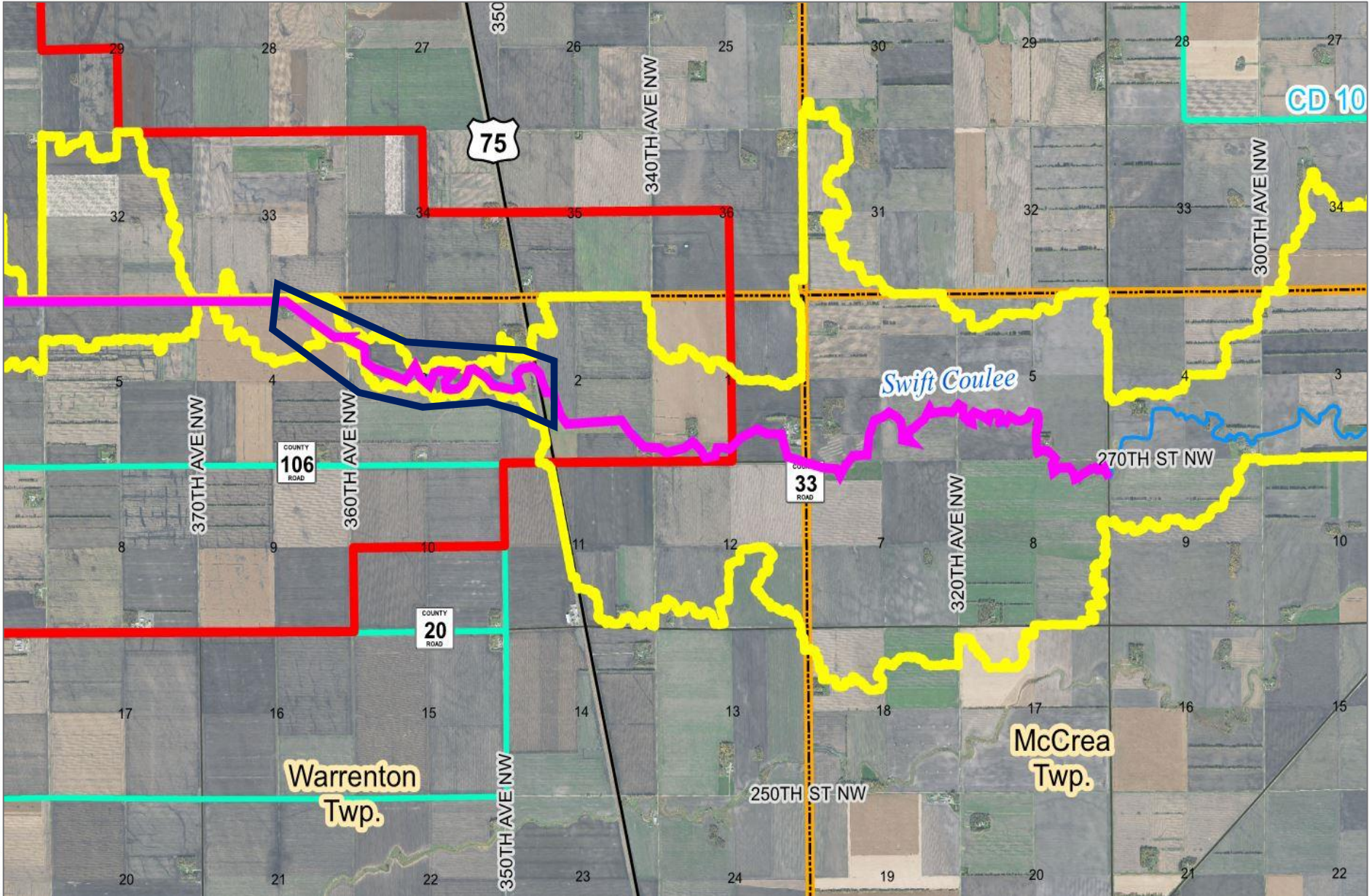


Survey & Sediment Plan

- **Middle-Snake-Tamarac Rivers Watershed District**
 - *Swift Coulee Survey Completed by MSTRWD Staff Late November*
 - *East ½ Section 4, Section 3, & West ½ Section 2, Warrenton Twp.*
 - *Sediment Plan Submitted to DNR for Review*
 - *Plan & Profiles of Existing Channel Bottom & Culvert to Culvert Excavation*
 - *Cross Sections of Existing Channel*



Survey Extents



Sediment Plan Review

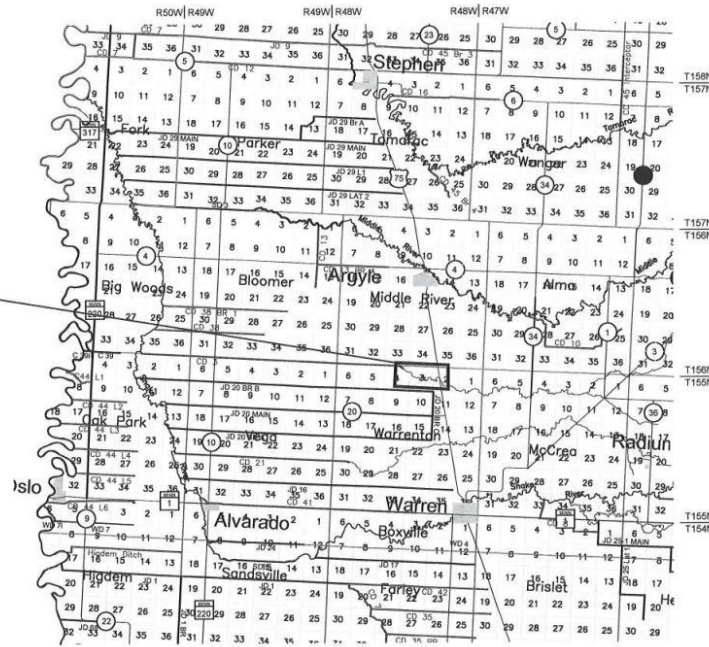
SWIFT COULEE SEDIMENT PLAN SECTION 2, 3 & 4 WARRENTON TWP MARSHALL COUNTY, MINNESOTA MIDDLE-SNAKE-TAMARAC RIVERS WATERSHED DISTRICT WARREN, MINNESOTA



Location Map
MSTRWD



PROJECT
LOCATION



SHEET INDEX

1	COVER SHEET
2-7	PLAN & PROFILE SHEETS
8-9	CROSS SECTIONS

LEGEND

UTILITY POLE	⊗
GUY WIRE	X
ROAD SIGN	Ω
WATER SERVICE VALVE	⊠
ELECTRICAL BOX	+
OVERHEAD POWER	— P — P —
UNDERGROUND TELEPHONE	— UGT — UGT —
EX. DITCH	— 999 —
CONTOUR	— 999 —
PROPOSED CONTOUR	— 999 —
EXISTING RIGHT OF WAY	— R/W — R/W —
NEW RIGHT OF WAY	— R/W — R/W —
TEMPORARY RIGHT OF WAY	— T/E —
RURAL WATERLINE	— W — W —
SILT FENCE	— SF — SF —
APPARENT SECTION LINE	— — —

UTILITY NOTES:

- PRIOR TO ANY EXCAVATION WORK, THE CONTRACTOR IS RESPONSIBLE UNDER MINNESOTA STATE STATUTE 2160 AND MINNESOTA RULES CHAPTER 7560 TO CONTACT GOPHER STATE ONE CALL FOR THE LOCATION OF UNDERGROUND UTILITY FACILITIES IN PROXIMITY TO THE EXCAVATION SITE.
- THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF C/A SCE 38-02, ENTITLED "STANDARD GUIDELINE FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA".

NOTES:

HORIZONTAL CONTROL: ANY COORDINATES LISTED IN THIS PLAN ARE MARSHALL COUNTY, MINNESOTA DOT, US FOOT.

VERTICAL CONTROL: ALL ELEVATIONS ARE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

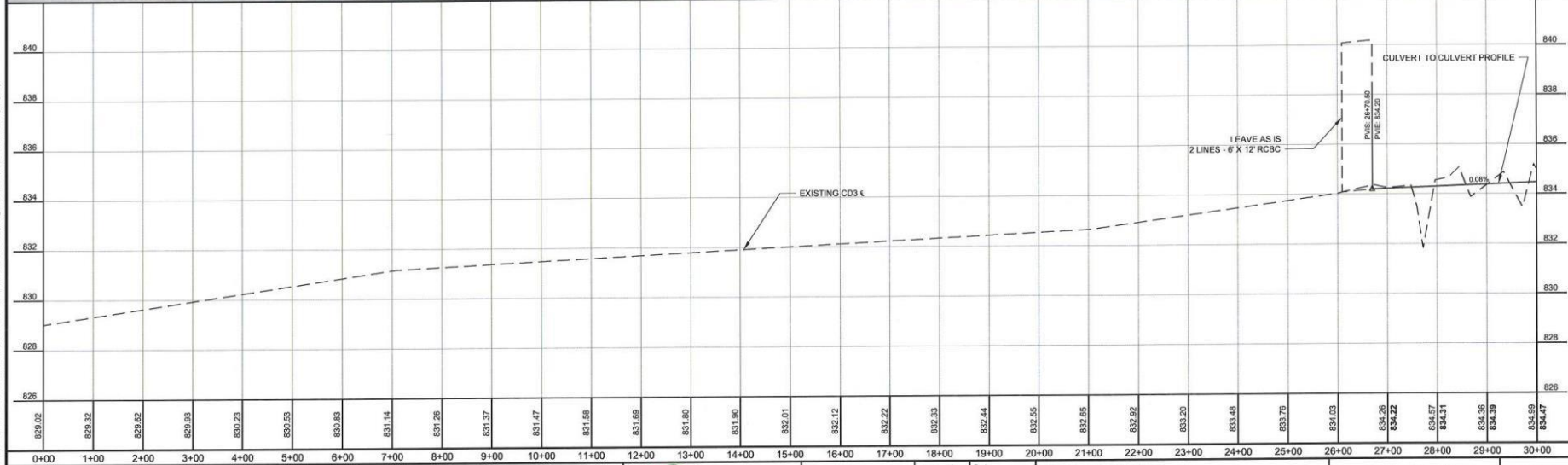
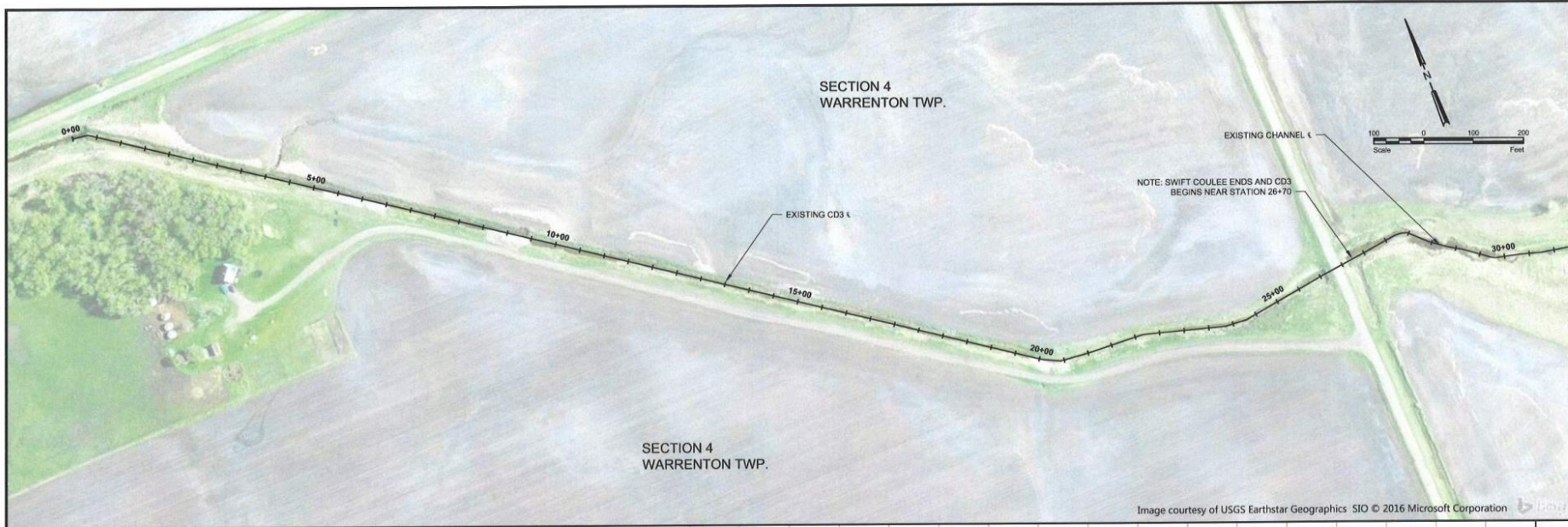
Prepared By:



Thief River Falls, MN

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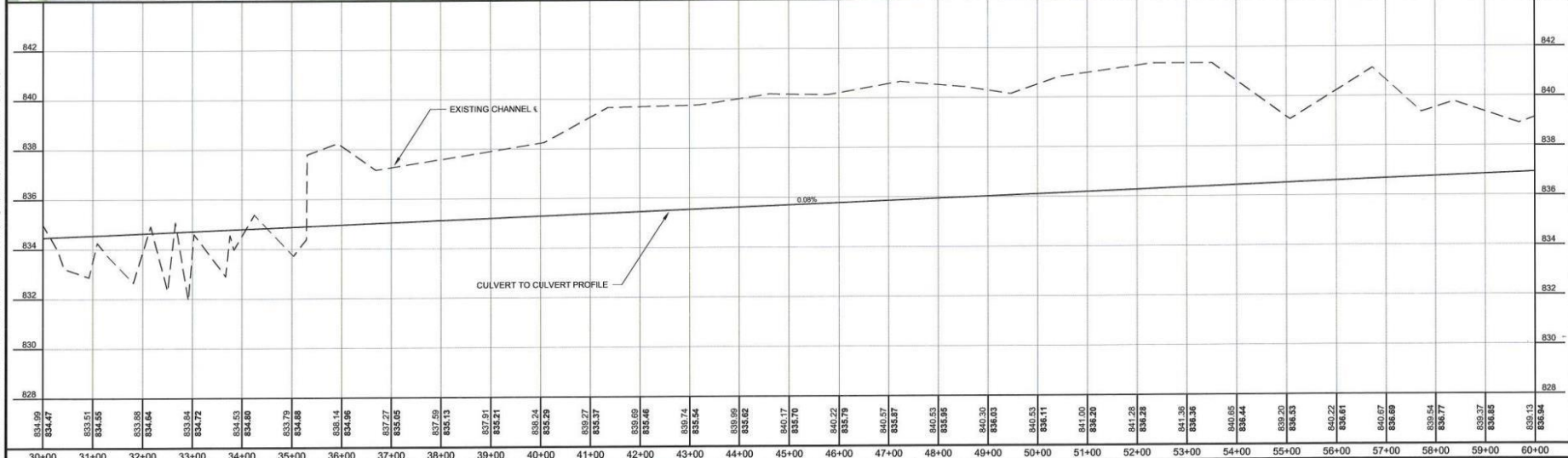
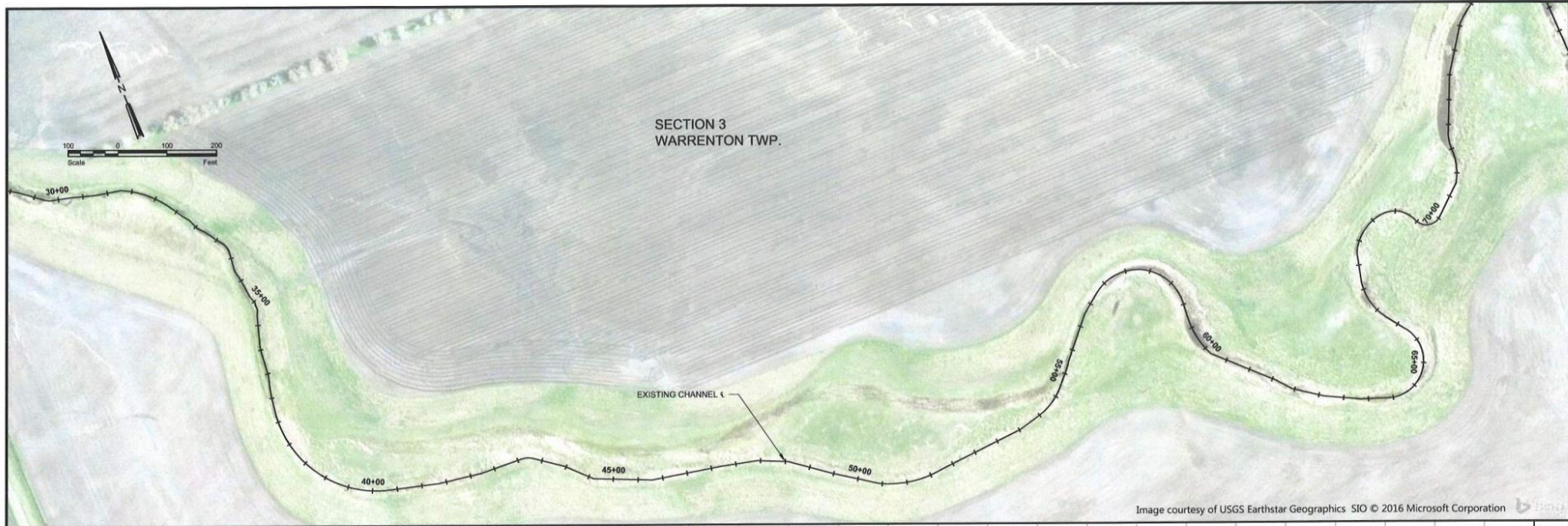
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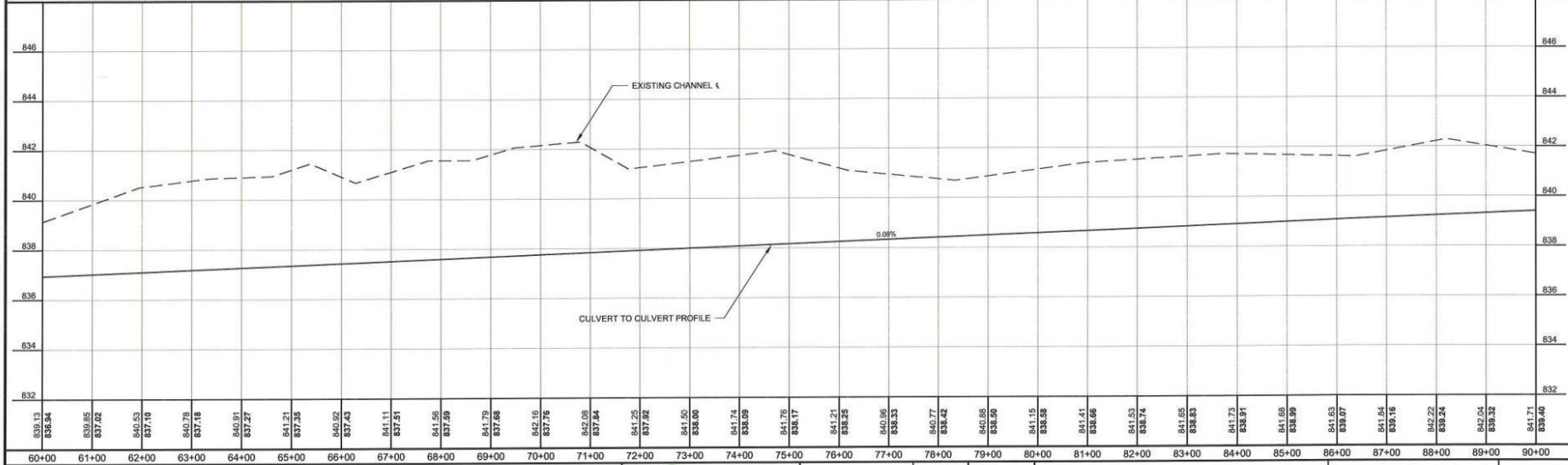
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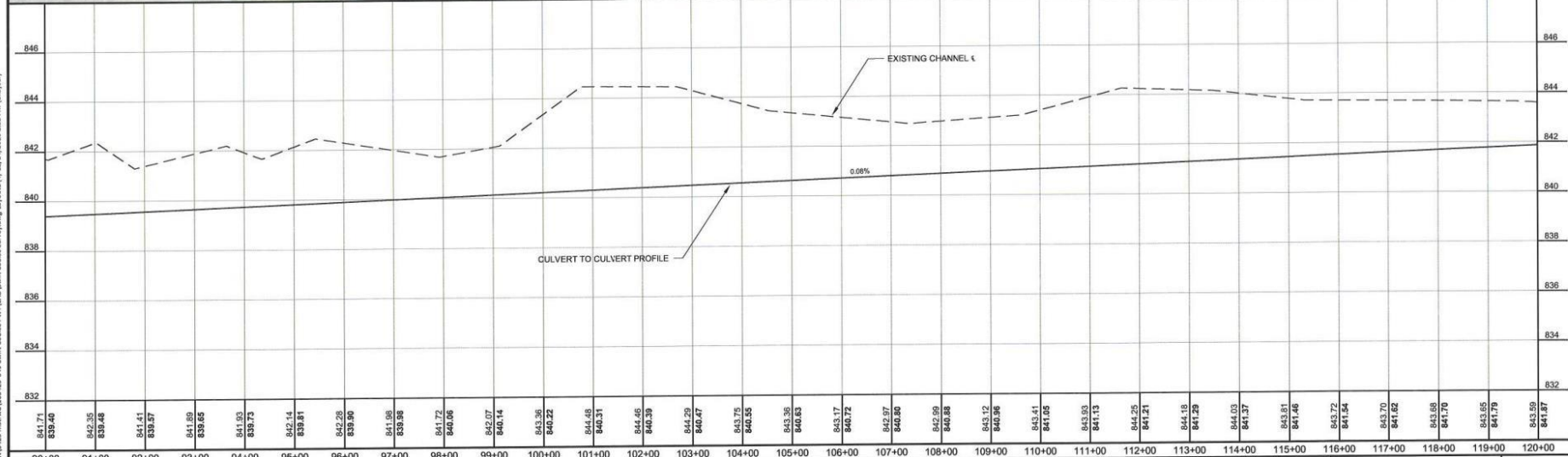
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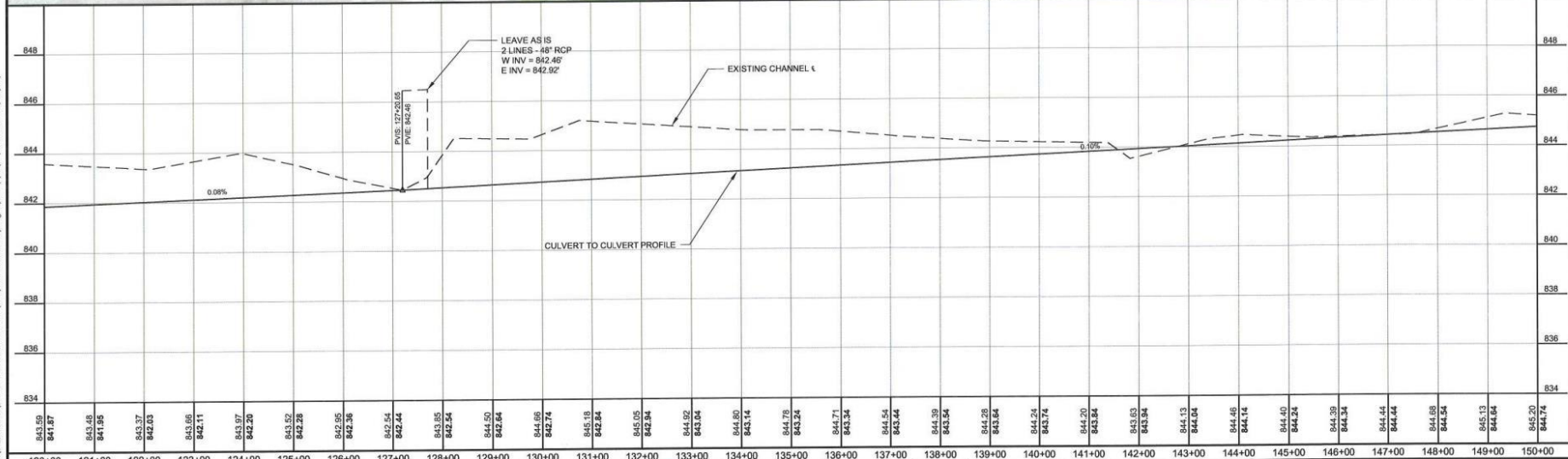
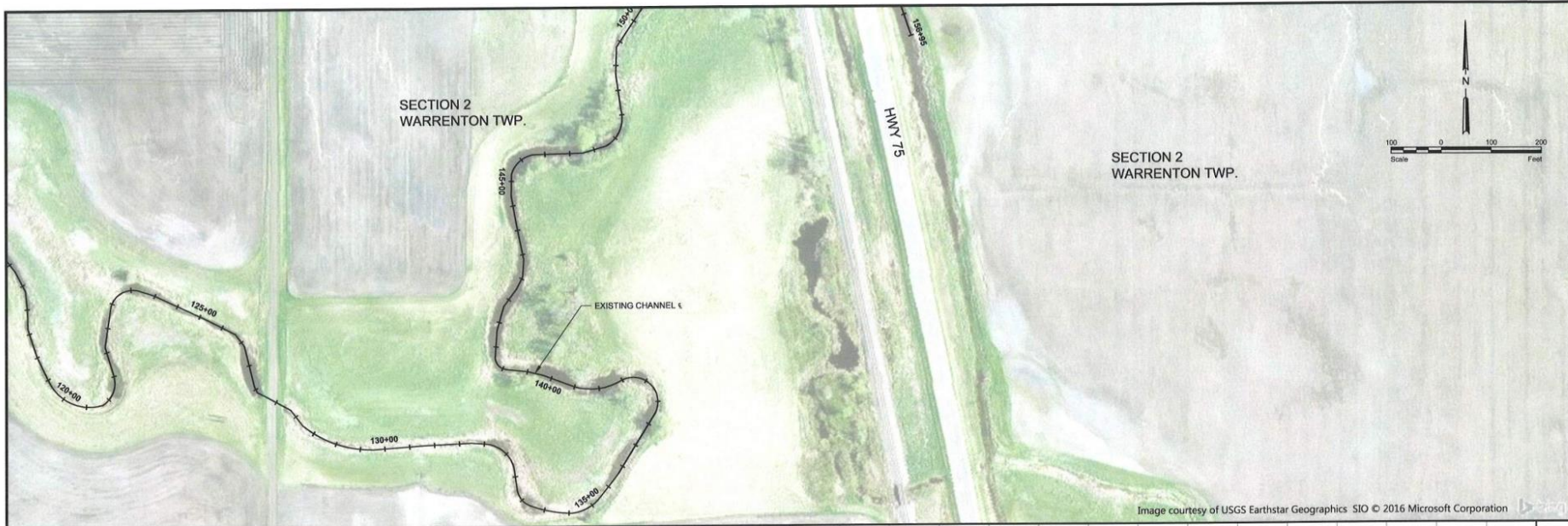
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120+00	121+00	122+00	123+00	124+00	125+00	126+00	127+00	128+00	129+00	130+00	131+00	132+00	133+00	134+00	135+00	136+00	137+00	138+00	139+00	140+00	141+00	142+00	143+00	144+00	145+00	146+00	147+00	148+00	149+00	150+00																													

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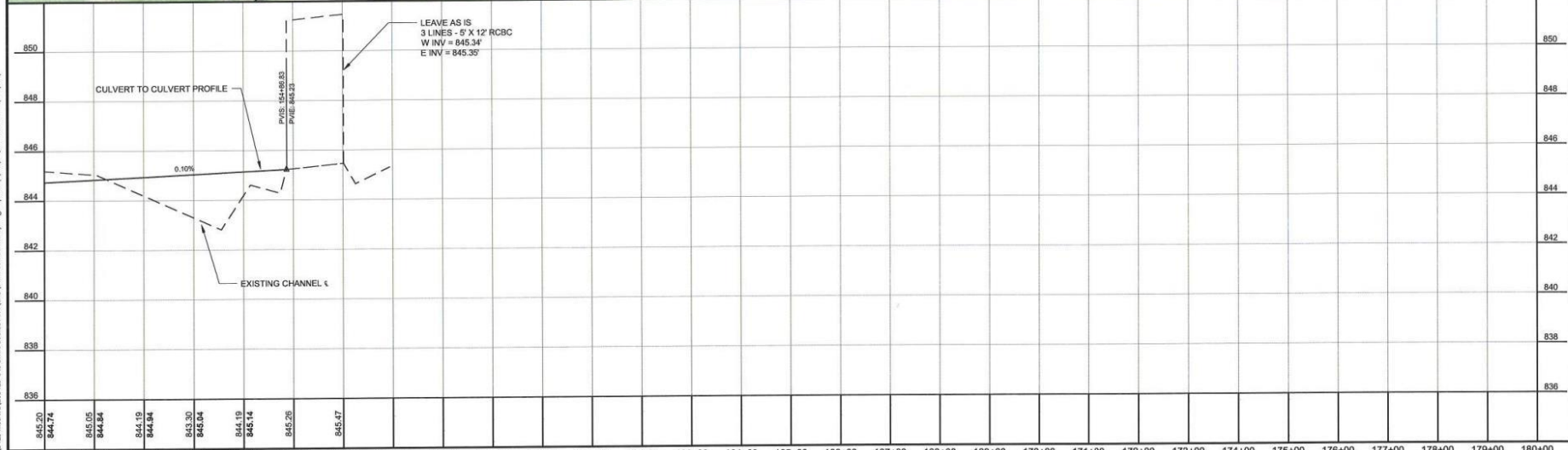
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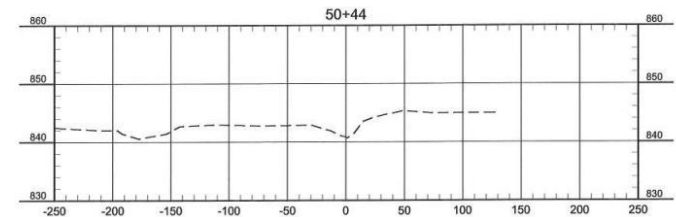
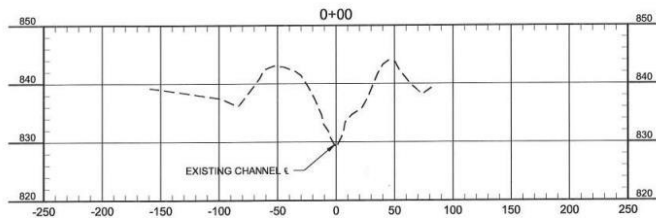
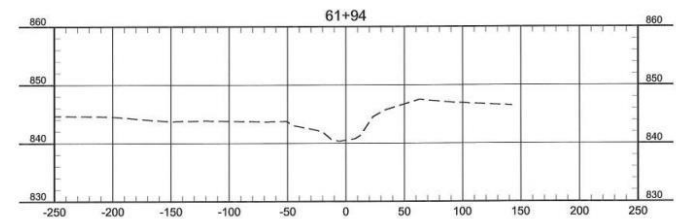
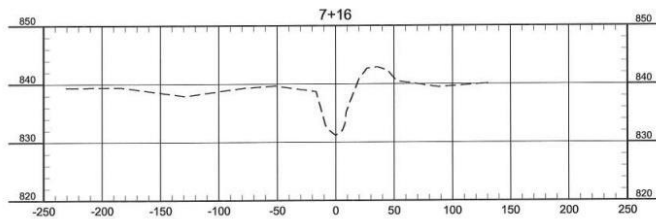
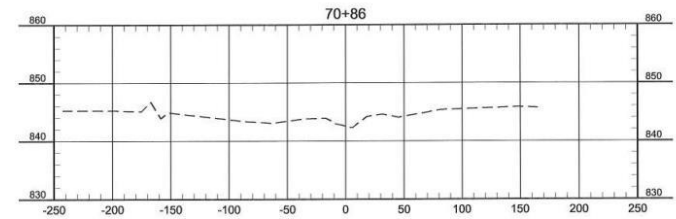
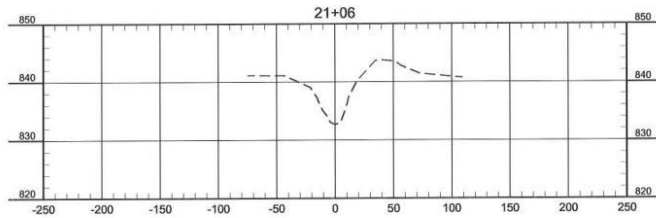
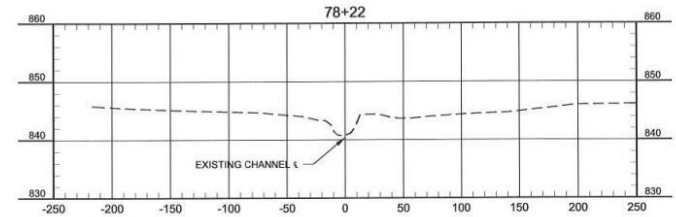
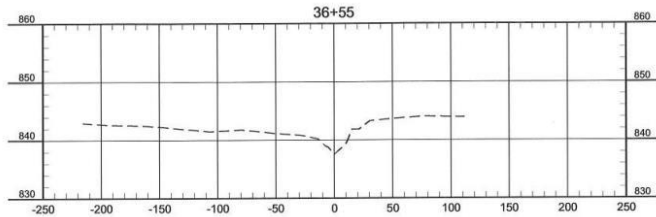
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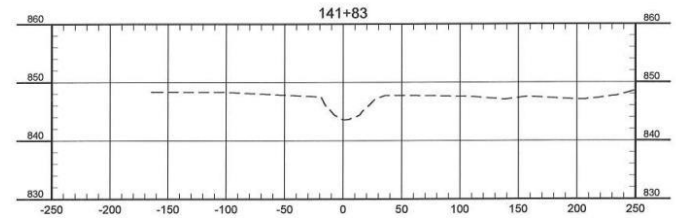
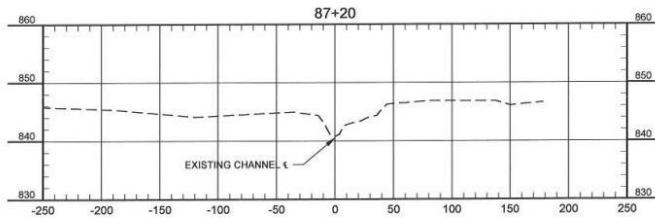
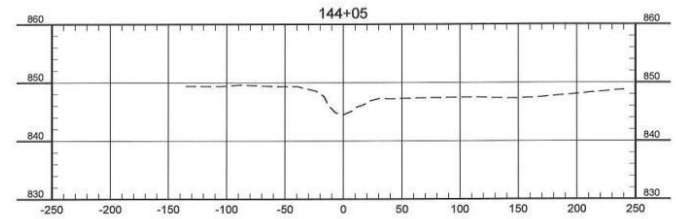
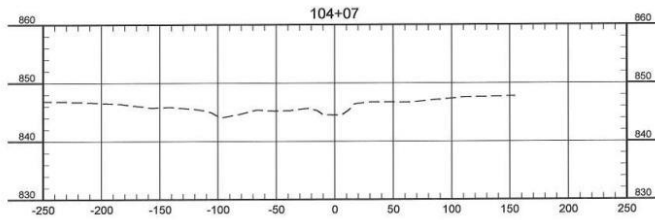
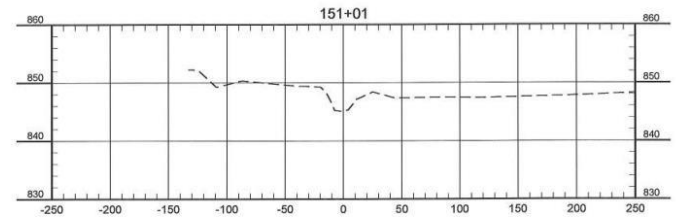
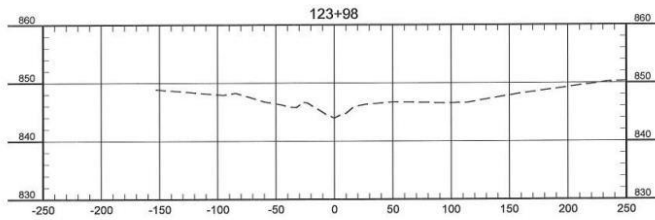
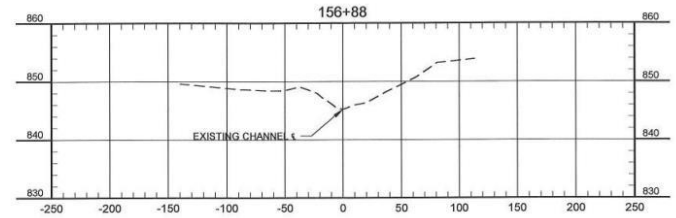
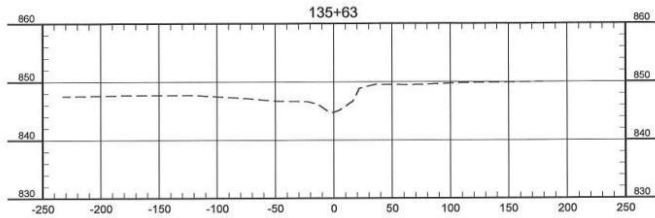
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DNR Response

- *May Need Environmental Assessment Worksheet (EAW) or Environmental Needs Determination*
- *Need Buffer Strip Installed, Side Inlet Pipes*
- *Reasoning for Cleaning Coulee in Sections 3 & 2 west of Hwy. 75 in Warrenton Twp.*
- *Design Proposed Cross Sections*



Resource Concerns for Consideration

Concerns Addressed to the MSTRWD During 10-Year Watershed Management Plan (May 2011)

- Benefited area disproportioned to Drainage area
- Overland Flooding
- Channel Instability/Capacity
- Buffer strip needed on coulee/ditch
- Fish Habitat
- Field erosion/deposition
- Breakout flows to Snake River
- Inadequate Outlet/Snake River
- Culvert Sizing
- Increased Problem over past 10-yr's near TH#75
- Runoff/timing issues with eastern planning region
- Channel/coulee filled with sediment
- Wind Erosion
- TSS, DO, & Bio (IBI) problems in streams

Any additional concerns???



Possible Project Types

- **Do Nothing (Quit PWT Process)**
- **Pursue Cleaning/Restore Coulee in Sections 3 & 2 West of Hwy. 75**
- **Improvement to CD #3/Redetermination of Benefits**
- **Channel Restoration Project (Swift Coulee)**
- **Set Back Levee Project (Swift Coulee)**
- **Retention/Impoundment Project**
 - ✓ Swift Coulee/CD#3 drainage area is identified in the MSTRWD Expanded Distributed Detention Study
- **Natural Resource Enhancement (NRE) Project**
- **Combination Project**
 - ✓ Example – Channel Restoration/Retention/NRE
- **Others?**



Possible Funding Sources

- **Possible Funding Sources for Channel Restoration/Retention/NRE Projects**
 - Red River Watershed Management Board Funds
 - Local Watershed Project Funds
 - Board of Water & Soil Resources (BWSR) Clean Water Grant Fund
 - BWSR Reinvest in Minnesota (RIM) Reserve Program
 - Flood Damage Reduction (FDR) Work Group Funds
 - MnDNR Working Lands Initiatives (WLI)
 - Lessard-Sams Outdoor Heritage Council (LSOHC) Funds
 - Enbridge Ecofootprint Grant
- **Funding for Ditch Improvement/Redetermination of Benefits**
 - CD #3 assessed benefitted area
- **Coulee Cleaning/Restoration**
 - Local Landowners
 - Enbridge Ecofootprint Grant



Next Steps

- Define what we are trying to accomplish
- Small Scale Project
- Larger Scale Project
 - Purpose and Need
 - Array of Alternatives
 - Select Alternative
 - Design of Selected Alternative
 - Implementation of Project



Purpose and Need

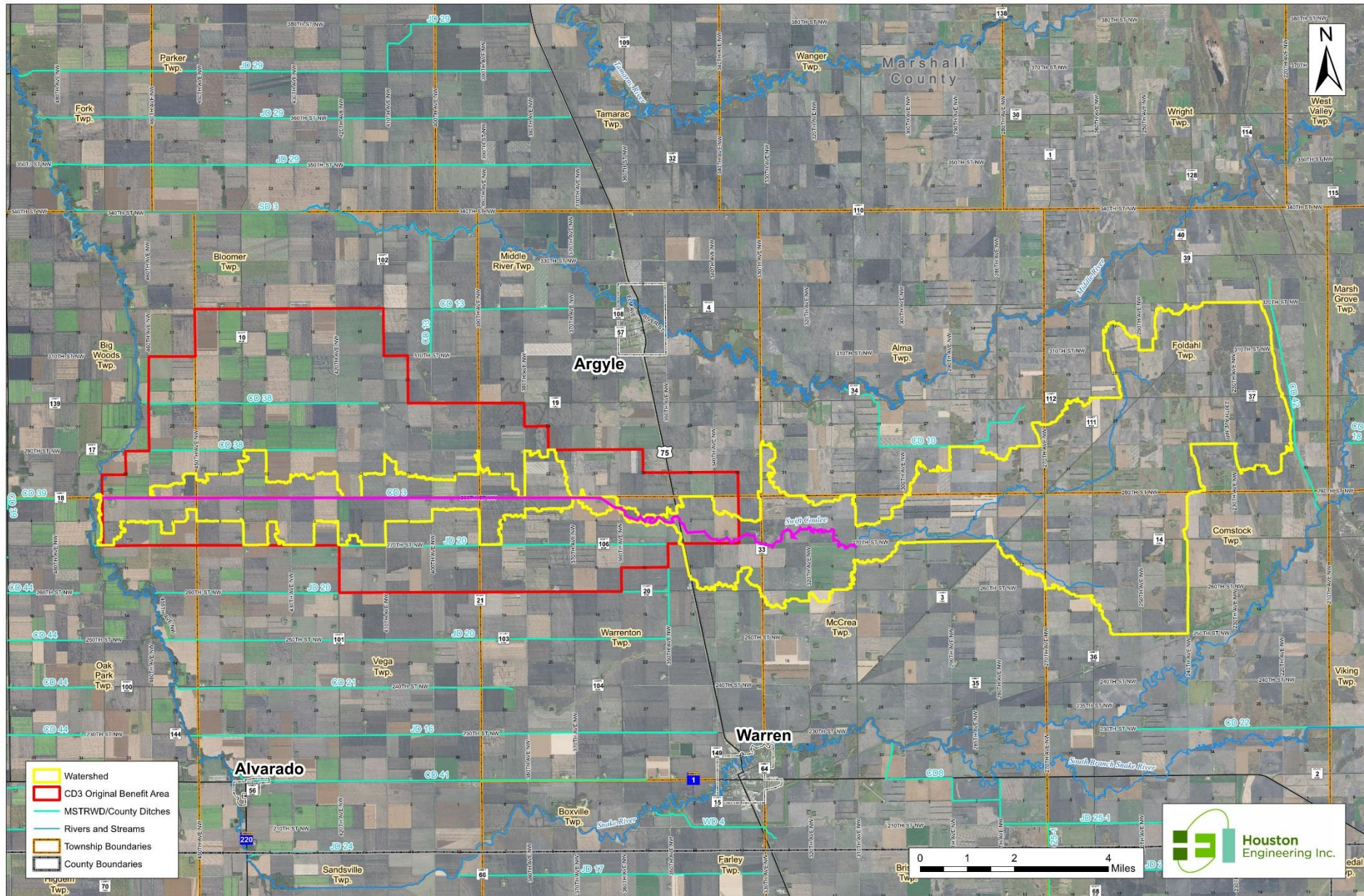
- Need – defines why the existing condition is inadequate and needs to be changed.
- Purpose – specific goal or objective to be obtained by the project given the identified need.



Discussion/Questions



Watershed Setting – Swift Coulee Region



Flood Impacts

SPRING RUNOFF 2008 CD #3



Flood Impacts

SPRING RUNOFF 2008 CD #3



Flood Impacts - Agriculture

JUNE 2007 RAIN EVENT LOOKING WEST AT EASTERN EDGE OF CD #3



Flood Impacts - Infrastructure

JUNE 2007 RAIN EVENT LOOKING EAST AT EASTERN EDGE OF CD #3



(2) 6' x 12' Box culverts flowing full



Flood Impacts

Swift Coulee/CD #3 Juncture NW4 Section 3 Warrenton Twp

End of Swift Coulee NW4 section 3 Warrenton Twp

