



October 9, 2020

Cass County  
Joint Water  
Resource  
District

MAURICE C RHEULT  
2121 16<sup>TH</sup> ST S  
FARGO ND 58103  
OIN 836

Dear MAURICE C RHEULT:

Dan Jacobson  
Chairman  
West Fargo, North Dakota

RE: Property Acquisition for FM Area Diversion Project

Rodger Olson  
Manager  
Leonard, North Dakota

The Diversion Authority is contacting property owners whose land is affected by the Fargo-Moorhead Area Diversion Project (Project). In the letter, it is noted that the Cass County Joint Water Resource District (CCJWRD) is the entity that is responsible for acquiring the property rights necessary for the Project in North Dakota. As such, the CCJWRD is contacting you to provide additional information associated with the acquisition of property necessary for the Project.

Ken Pawluk  
Manager  
Fargo, North Dakota

Ken Lougheed  
Manager  
Gardner, North Dakota

We appreciate what we are asking of you and your property. We are committed to making the acquisition process as straightforward as possible and that fair compensation is awarded for any impacts to your property from the Project.

Jacob Gust  
Manager  
Fargo, North Dakota

The design for the construction and operation of the Project indicates that a property right is needed on your property. The CCJWRD has retained the services of Ulteig to serve as a professional right of way agent (project representative) that will assist in guiding you through the property acquisition process, answering questions, and serving as your primary point of contact. The contact information for Ulteig is:

Carol Harbeke Lewis  
Secretary-Treasurer

Lisa.Brekkenstran@ulteig.com  
3350 38<sup>th</sup> Ave South Fargo, ND 58104  
(701) 280-8518

1201 Main Avenue West  
West Fargo, ND 58078-1301

If you have not already been in contact with someone from Ulteig, they will be in contact with you in the next month.

701-298-2381  
FAX 701-298-2397  
[wrld@casscountynnd.gov](mailto:wrld@casscountynnd.gov)  
[casscountynnd.gov](http://casscountynnd.gov)

OIN 836

«Current\_Owner»

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October 9, 2020

Enclosed with this letter is a map or maps for OIN 836 showing how the Project may impact your property and what property rights are needed for the Project. In addition, each property will get a market-based appraisal that will be the basis for the valuation of the property. The property acquisition process and schedule for the project can be found on the Project website at: [fmdiversion.gov/lands](http://fmdiversion.gov/lands).

If you have structures that are located in one of the mitigation zones shown on the enclosed maps, we will begin the process of appraising those structures later this year. The appraisal will establish the market value and serve as a starting point for compensating you for the Project impacts.

For land without structures located in one of the mitigation zones shown on the enclosed maps, we will be required to obtain a flowage easement. The Diversion Authority will be retaining an appraiser to establish the value of flowage easements for all affected parcels. It is anticipated that the flowage easement values will be established in late 2021 or early 2022. More information about the flowage easement is provided on the Project website and in the enclosed materials from the Diversion Authority.

We encourage you to work directly with Ulteig, but feel free to also contact the CCJWRD at 701-298-2381.

Sincerely,

CASS COUNTY JOINT WATER RESOURCE DISTRICT

A handwritten signature in black ink, appearing to read "Carol Harbeke Lewis". The signature is written in a cursive style with a large initial 'C'.

Carol Harbeke Lewis  
Secretary-Treasurer



October 2020

## Project Status & Recent Milestones

### An Attachment for North Dakota Property Owners

### Project Milestones and their Significance to Property Owners

MILESTONE	DETAILS	SIGNIFICANCE TO PROPERTY OWNERS	ADDITIONAL INFORMATION
<p>Federal Emergency Management Authority (FEMA) approved the Conditional Letter of Map Revision (CLOMR) for the Project</p>	<p>The CLOMR was approved on Sept. 4, 2020.</p> <p>The CLOMR outlines how the Project, if built as proposed, will meet the National Flood Insurance Program (NFIP) requirements and how the Project would result in future changes to the Flood Insurance Rate Maps (FIRMs) for the area.</p>	<p>The CLOMR finalizes the hydraulic model for purposes of mitigating Project impacts.</p> <p>The final hydraulic model is used to define how property is, or is not, impacted due to the Project.</p>	<p><a href="http://FMDiversion.gov/CLOMR">FMDiversion.gov/CLOMR</a></p>
<p>North Dakota Office of the State Engineer (NDOSE) approved the Project's Property Rights Acquisition and Mitigation Plan</p>	<p>The NDOSE approved the Property Rights Acquisition and Mitigation Plan on June 1, 2020.</p> <p>The Property Rights Acquisition and Mitigation Plan has been refined over several years and includes input from numerous property owners, agricultural producers, permitting agencies, and other stakeholders.</p>	<p>The Property Rights Acquisition and Mitigation Plan includes detailed plans and processes for acquiring property rights as well as mitigating the impacts to farmland, organic farmland, cemeteries, and residential and commercial properties.</p>	<p><a href="http://FMDiversion.gov/mitigation">FMDiversion.gov/mitigation</a></p>



207 4th St. N. - Suite A  
Fargo, ND 58102  
(701) 660-0900  
FMDiversion.gov

**Tim Mahoney**  
Board Chair, Mayor of Fargo  
**Johnathan Judd**  
Board Vice Chair, Mayor of Moorhead

Permanent, Reliable Flood Protection

**Dave Piepkorn**, City of Fargo  
**John Strand**, City of Fargo  
**Bernie Dardis**, City of West Fargo

**Shelly Carlson**, City of Moorhead  
**Chuck Hendrickson**, City of Moorhead  
**Rodger Olson**, CCJWRD

**Chad Peterson**, Cass County  
**Rick Steen**, Cass County  
**Mary Scherling**, Cass County

**Kevin Campbell**, Clay County  
**Grant Weyland**, Clay County

October 9, 2020

MAURICE C RHEAULT  
2121 16<sup>TH</sup> ST S  
FARGO ND 58103

Dear MAURICE C RHEAULT

The Diversion Authority is contacting you to ensure you have the most current information that could affect property you own. There have been several recent developments with the Fargo-Moorhead Area Diversion Project (Project) that we hope will provide more certainty for you and any potential impacts affecting your property.

Please find enclosed with this letter the following information related to your property.

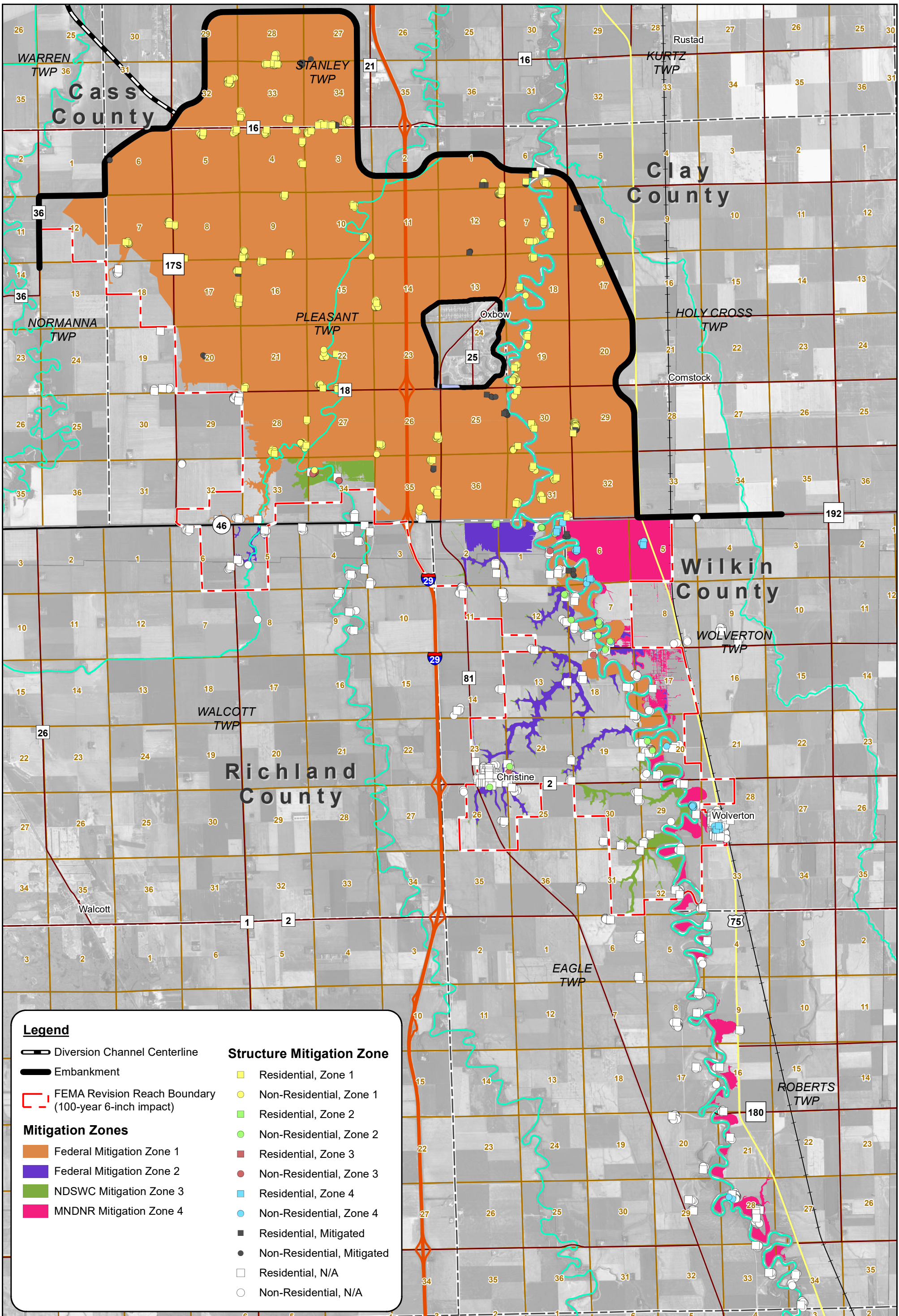
- An overview of the recently crossed key milestones.
  - These milestones provide us the ability to present you more detailed information about the potential impacts to your property and the next steps required to acquire property rights needed for the Project. These next steps include compensation to you for those impacts.
- A letter from the Cass County Joint Water Resource District (CCJWRD).
  - CCJWRD is responsible for acquiring the necessary property rights for the Project in North Dakota. The letter provides details about the acquisition process and identifies a real estate professional who will work with you through the process.
- A map of the Project's Southern Embankment and Upstream Mitigation Area (UMA)
  - The UMA is divided into four mitigation zones based on application of state and federal mitigation and property right requirements.
- Maps of your property showing the mitigation zones and topographical elevation data along with existing and with-Project flood levels.
- An informational packet summarizing Diversion Authority mitigation programs

I know the Project impacts you, your property, and community. The Diversion Authority wants to work with you to find a fair solution to address your impacts and to answer questions.

Sincerely,

A handwritten signature in black ink that reads "Joel Paulsen".

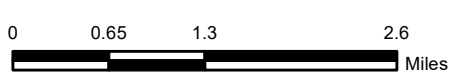
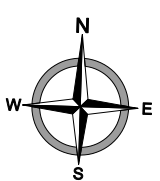
Joel Paulsen  
Executive Director  
Metro Flood Diversion Authority



**Legend**

- Diversion Channel Centerline
  - Embankment
  - FEMA Revision Reach Boundary (100-year 6-inch impact)
- Mitigation Zones**
- Federal Mitigation Zone 1
  - Federal Mitigation Zone 2
  - NDSWC Mitigation Zone 3
  - MNDNR Mitigation Zone 4
- Structure Mitigation Zone**
- Residential, Zone 1
  - Non-Residential, Zone 1
  - Residential, Zone 2
  - Non-Residential, Zone 2
  - Residential, Zone 3
  - Non-Residential, Zone 3
  - Residential, Zone 4
  - Non-Residential, Zone 4
  - Residential, Mitigated
  - Non-Residential, Mitigated
  - Residential, N/A
  - Non-Residential, N/A

**FM AREA DIVERSION PROJECT  
UPSTREAM MITIGATION AREA &  
MITIGATION ZONES**



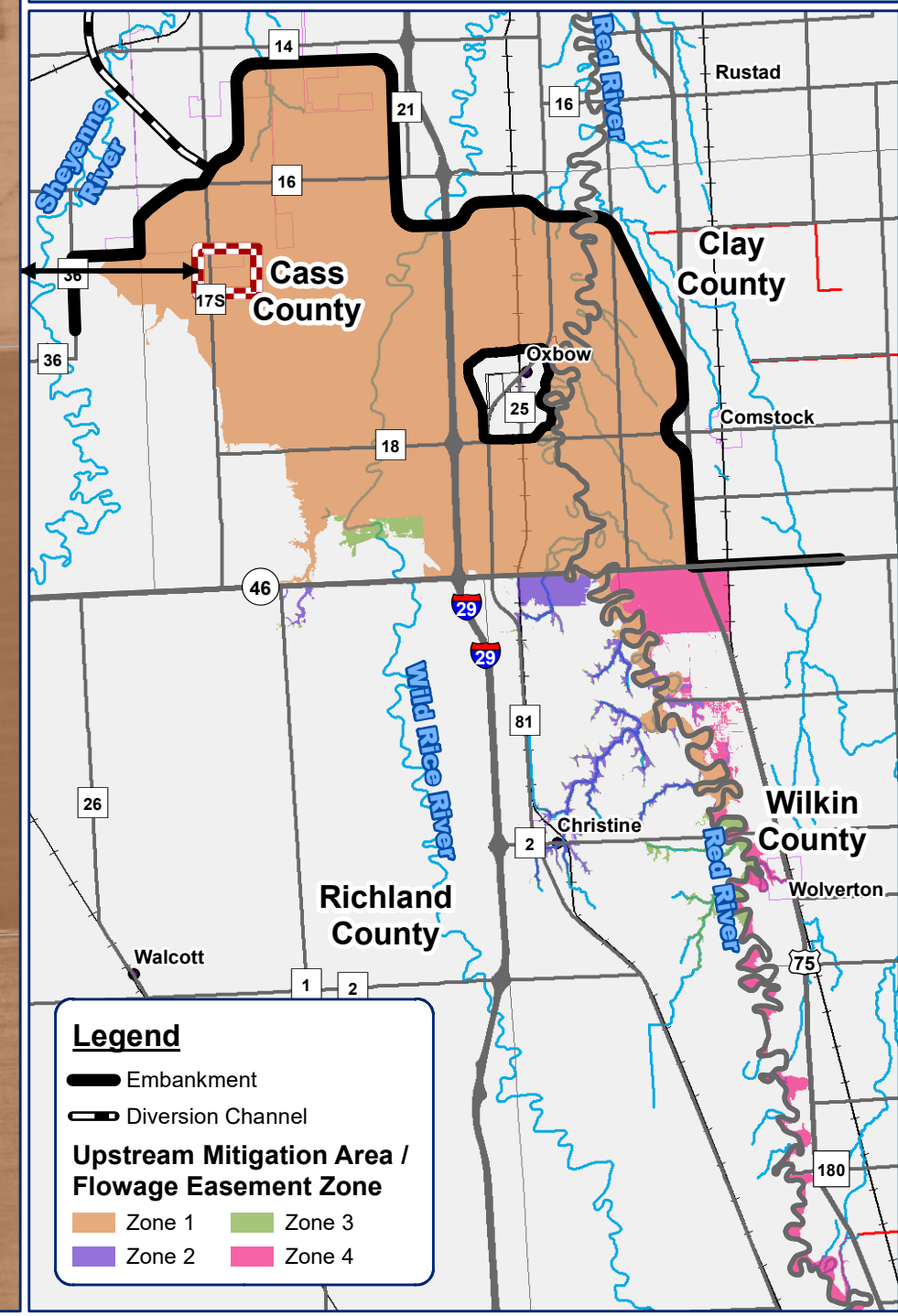
Source: CLOMR FEMA Case Number 19-08-0683R



Created By: KJV Date Created: 06/18/18 Date Saved: 09/15/20 Date Exported: 09/15/20  
 Plotted By: kyle.volk Parcel Date: Varies Aerial Image: N/A Elevation Data: 2008 Lidar  
 Horizontal Datum: NAD 1983 StatePlane North Dakota South FIPS 3302 Feet Vertical Datum: NAVD1988  
 T:\Projects\191001\19116\2020 Mitigation Plan Maps\2020\_06\_17\CLOMR5\_UMA\_Zones\_Map\_2020\_09\_15\_Revision\_Reach.mxd

# FM AREA DIVERSION

**Property Owner:**  
MAURICE C RHEAULT



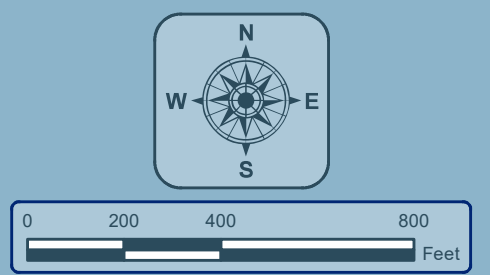
**Legend**

Parcel Boundary	<b>Structures</b>	<b>Upstream Mitigation Area / Flowage Easement Zone</b>	<b>Preliminary Property Rights Needed</b>
Embankment	Residential	Zone 1	Zone 3
Diversion Channel	Non-Residential	Zone 2	Zone 4
			Fee Title
			Temporary Easement

**Legend**

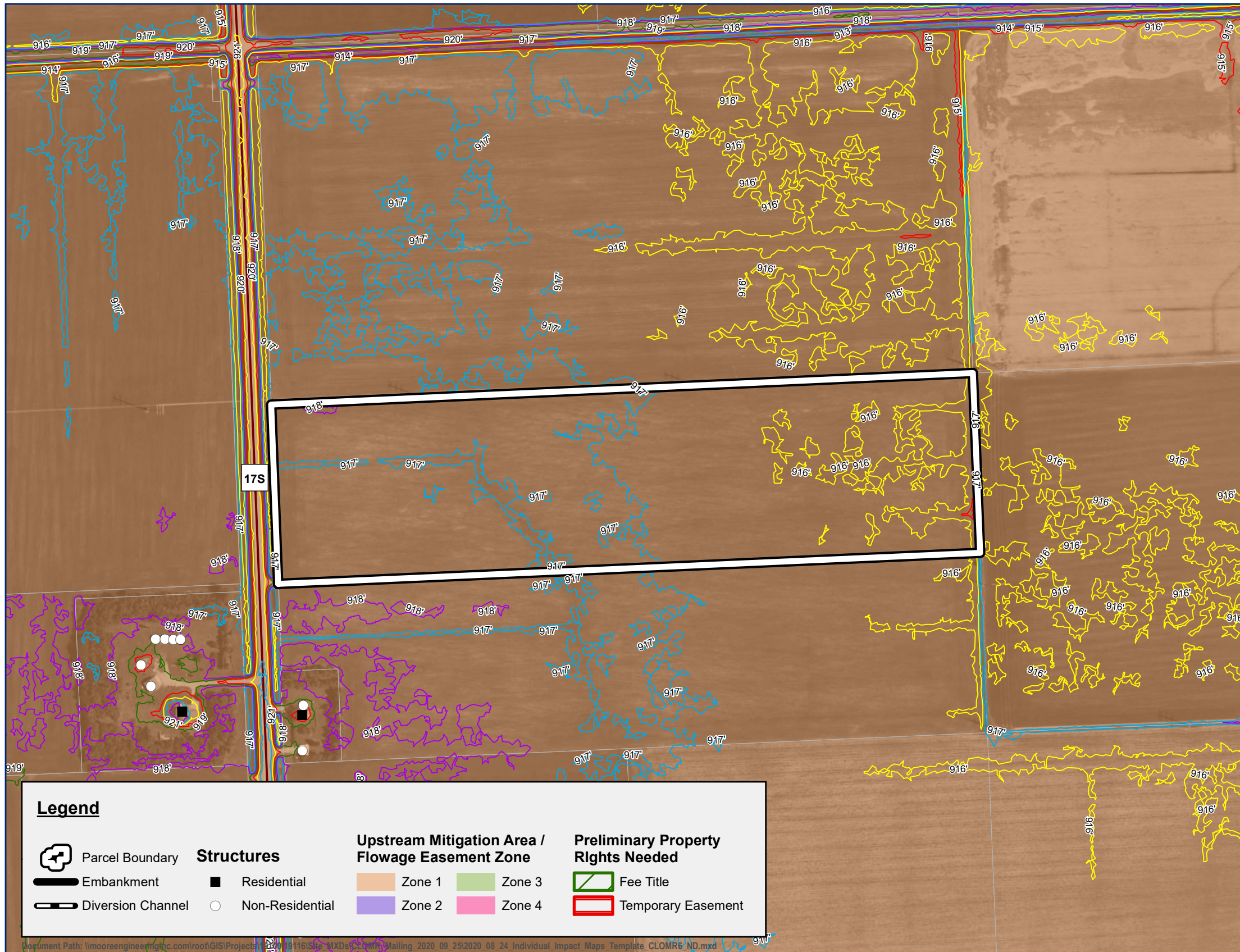
Embankment
Diversion Channel
<b>Upstream Mitigation Area / Flowage Easement Zone</b>
Zone 1
Zone 2
Zone 3
Zone 4

Document Path: \\mooreengineeringinc.com\root\GIS\Projects\19110119116\Site\_MXD\CLOMR\_Mailing\_2020\_09\_25\2020\_08\_24\_Individual\_Impact\_Maps\_Template\_CLOMR6\_ND\_Simple.mxd



<p><b>Zone 1</b> <i>Required by U.S. Army Corps of Engineers</i></p> <p>An area defining the volume of floodwater storage required to ensure proper operation of the Project.</p>	<p><b>Zone 2</b> <i>Required by U.S. Army Corps of Engineers</i></p> <p>An area outside of Zone 1 where the Project causes more than 1-foot of impact.</p>	<p><b>Zone 3</b> <i>Required by the ND Office of the State Engineer</i></p> <p>An area in North Dakota outside of Zones 1 and 2 where the Project causes more than 0.5-feet of impact.</p>	<p><b>Zone 4</b> <i>Required by the Minnesota DNR</i></p> <p>An area in Minnesota outside of Zones 1 and 2 where the Project causes more than 0.1-feet of impact.</p>
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<b>OIN:</b>	836
<b>PIN:</b>	57-0000-10263-010
<b>County:</b>	Cass
<b>PDF Date:</b>	09/23/2020

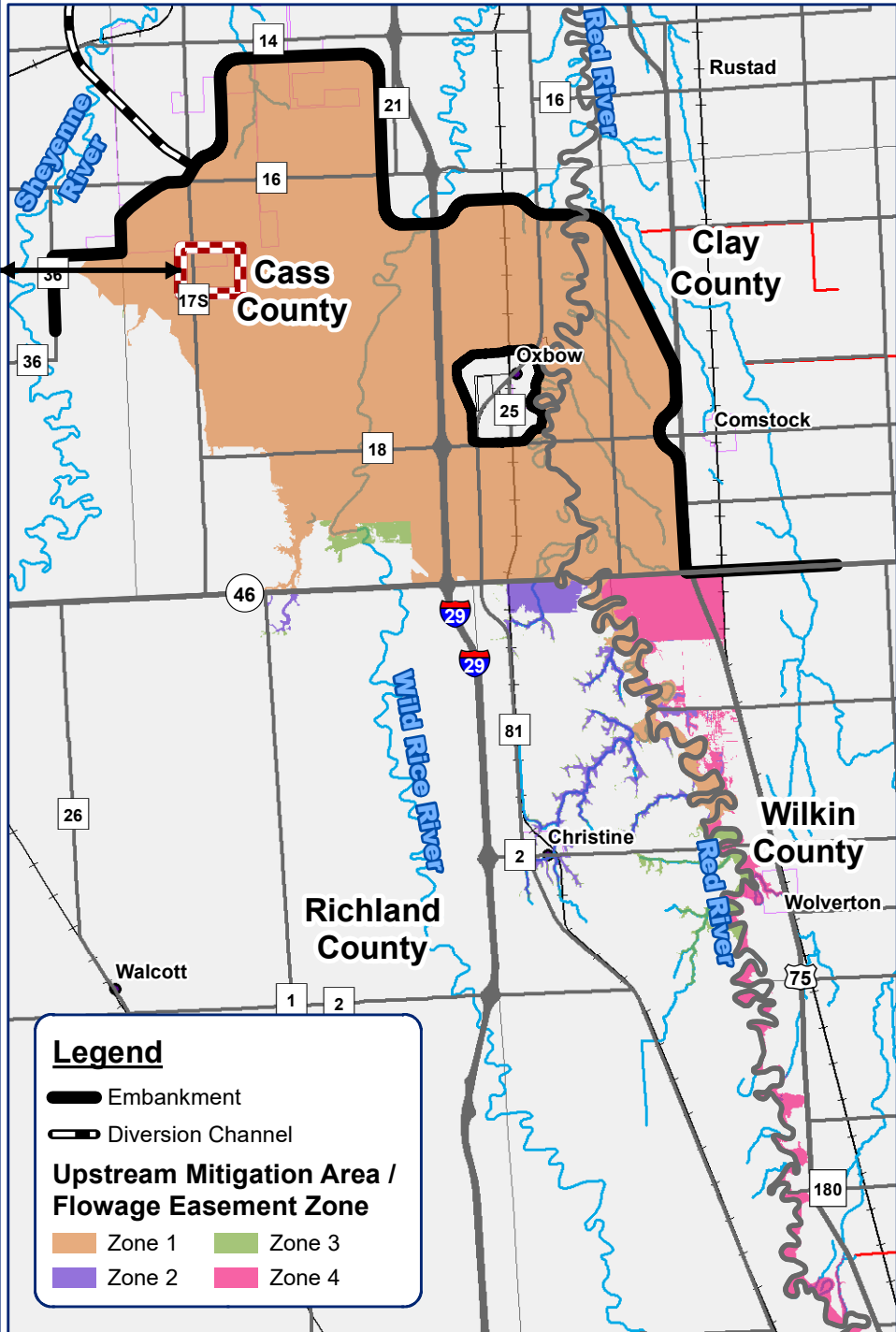


**Legend**

Parcel Boundary	<b>Structures</b>	<b>Upstream Mitigation Area / Flowage Easement Zone</b>	<b>Preliminary Property Rights Needed</b>
Embankment	Residential	Zone 1	Fee Title
Diversion Channel	Non-Residential	Zone 2	Temporary Easement
		Zone 3	
		Zone 4	

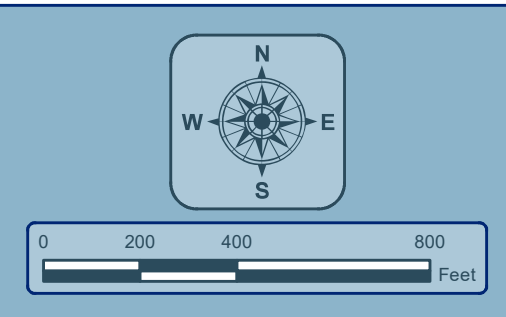
# FM AREA DIVERSION

**Property Owner:**  
MAURICE C RHEAULT



**Legend**

Embankment	Diversion Channel
<b>Upstream Mitigation Area / Flowage Easement Zone</b>	
Zone 1	Zone 3
Zone 2	Zone 4



Return Frequency	Existing Conditions Peak Water Elevation	With Project Peak Water Elevation
10-Year	912.4	912.3
20-Year	915.4	914.9
50-Year	916.1	918.7
100-Year	916.3	920.9
500-Year	916.8	922.0
PMF (175,000-Year)	918.0	923.3

OIN: 836

**Notes:**

- Source: CLOMR FEMA Case Number 19-08-0683R
- Contours: Created from 2008 LIDAR
- PMF - Probable Maximum Flood

**OIN:** 836  
**PIN:** 57-0000-10263-010  
**County:** Cass  
**PDF Date:** 09/24/2020

# Informational Overview Mitigation Plan

The Full Mitigation Plan is available at [FMDiversion.gov/Mitigation](http://FMDiversion.gov/Mitigation)

Mitigation of Project impacts takes many forms based on the impact being caused.

Impacts may require purchase of property within the construction footprint, to providing additional crop insurance in areas impacted by floodwaters during Project operation.

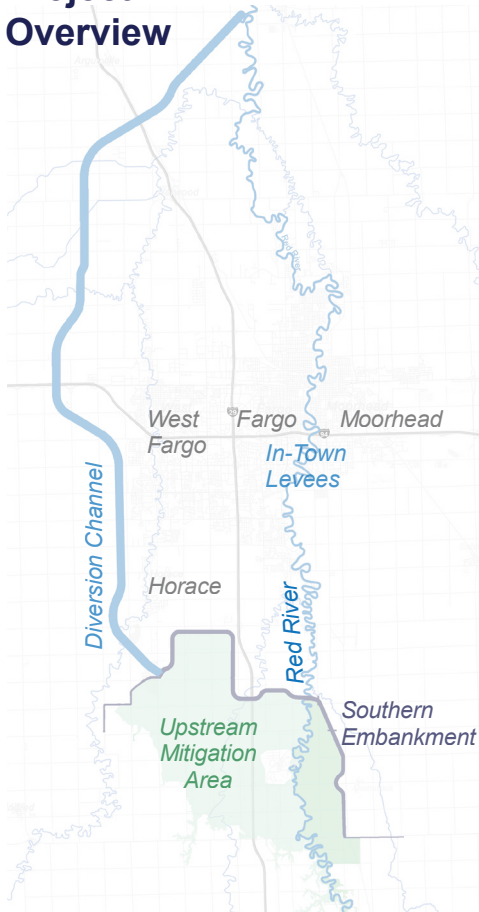
The Property Rights Acquisition and Mitigation Plan has been updated to address all impacts to property, and to incorporate a comprehensive suite of mitigation programs.







The plan has been approved by the ND Office of the State Engineer.

## Mitigation

The Diversion Authority is committed to ensuring fair compensation for impacts caused by the Project.

## Project Overview



	How was it developed?	Key components of implementation
 <p><b>Property Acquisition Process</b></p>	<ul style="list-style-type: none"> <li>Federal and state laws</li> <li>Permit conditions</li> <li>Previous water resource projects that included property acquisition</li> </ul>	<ul style="list-style-type: none"> <li>Being fair, friendly, and flexible</li> <li>Compensation through purchase of property rights</li> <li>Market based appraisals</li> </ul>
 <p><b>Agricultural Operations</b></p>	<ul style="list-style-type: none"> <li>Multiple studies, including two from NDSU about potential impacts</li> <li>Input from agriculture-based stakeholders</li> <li>Input from the Ag Policy Subcommittee of the Diversion Board</li> <li>Permit conditions</li> </ul>	<ul style="list-style-type: none"> <li>Compensation through purchase of property rights</li> <li>Post-Operation cleanup</li> <li>Summer Operation Supplemental Crop Loss Program</li> <li>Early Acquisition to Reestablish Organic Farms</li> <li>Market based appraisals</li> </ul>
 <p><b>Rural Impact Mitigation Program (Farmstead Re-establishment Program)</b></p>	<ul style="list-style-type: none"> <li>Input from stakeholders</li> <li>Evaluation of other successful projects</li> </ul>	<ul style="list-style-type: none"> <li>Financial allowances to help reestablish farmsteads, businesses, and nonprofit organizations</li> <li>Forgivable loan</li> <li>Based on functionally equivalent operation</li> </ul>
 <p><b>Flowage Easements</b></p>	<ul style="list-style-type: none"> <li>Federal and state laws</li> <li>Phased study of comparable projects nationwide through Crown Appraisals</li> <li>Permit conditions</li> </ul>	<ul style="list-style-type: none"> <li>Compensation through purchase of property rights</li> <li>Market based appraisals</li> </ul>
 <p><b>Post Project Operation Cleanup &amp; Repair</b></p>	<ul style="list-style-type: none"> <li>Evaluating post-flooding operations from other entities like FEMA</li> <li>Input from stakeholders and public comments</li> <li>Permit conditions</li> </ul>	<ul style="list-style-type: none"> <li>Cleanup operations for private and public lands after the Project operates</li> </ul>
 <p><b>Dispute Resolution Board</b></p>	<ul style="list-style-type: none"> <li>Evaluating other projects like the Devils Lake outlet project</li> <li>Input from stakeholders and public comments</li> </ul>	<ul style="list-style-type: none"> <li>Administrative process for property owners to bring forward claims of damage caused by the Project not previously compensated through a property right</li> </ul>





# Mitigation Plan Overview

## Agriculture Operations

September 2020

### Studies Conducted to Developing Mitigation for Agriculture

The NDSU Department of Agribusiness was asked to study how the temporary storage of floodwaters would affect crop production and agricultural revenues in the area upstream of the FM Area Diversion Project.

Specifically, NDSU studied how the effects of flooding align with regional planting and increasing the understanding of how Project operation may impact planting dates, yield reductions and revenue reduction.

#### Hydrology

- Substantial acreage within staging area is not adversely affected.
- The majority of adversely affected acreage would have potential planting delays of one to five days.
- Some storage tracks will have substantially adverse effects. It is hard to make generalizations that represent all situations.

#### Economic & Historical Observations

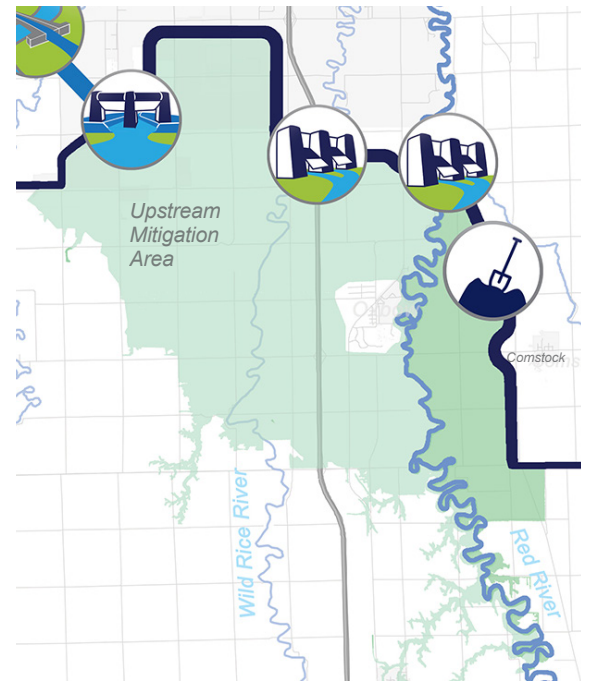
- Economic conclusions are influenced by high acreage of soybeans -- 50% of land is in soybeans. Soybeans have later planting dates so they are less sensitive to yield reductions.
- Economic losses are sensitive to dry-down requirements.
- Combinations of a long, or late-occurring flood and relatively early planting start dates are required to produce more pronounced levels of planting delays.

#### During a 25-year or Larger Flood Event with the Project in Place

- There is a high probability of modest revenue losses (<\$25/acre) due to planting delays.
- There is a low probability of greater revenue losses due to planting delays.

#### NDSU Study of Agriculture in Upstream Mitigation Area

- 241 individual storage areas totaling more than 54,000 acres.
- Exceeds the designation of the staging area provided by USACE (28,000 acres of inundated lands).
- Data from HEC-RAS 9.1 hydrology model provided by FM Diversion Authority.
- Study used entire acreage of a storage area if any portion of the area was inundated.
- Study used 10,000 simulations to produce results.

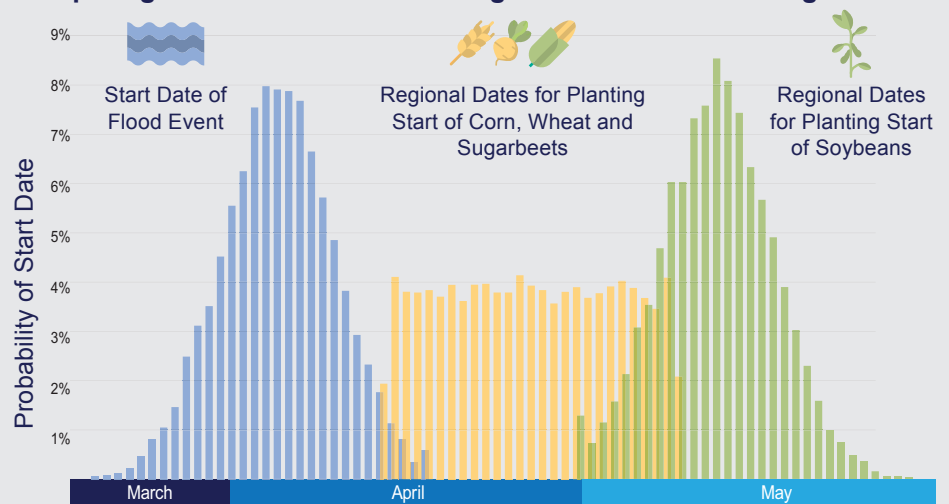


#### How often will the Project have impacts?









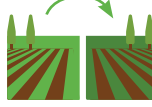

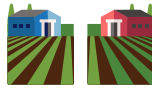

The Diversion Authority asked NDSU to research this question specifically and their research determined there is some but not extensive overlap between planting dates and flood event dates. The study evaluated numerous flood simulations and determined, especially with a crop like soybeans, the likelihood of a spring flood event and project operation impacting planting would be fairly minimum.

##### Calendar Analysis

##### Comparing Flood Start Dates and Regional Historical Planting Dates



# How will the Impacts be Mitigated for Agriculture Operations?

	What is the impact?	Mitigation Available to Help Reduce Risk and Protect Agricultural Operations
<b>Spring Operation</b> <i>Major flooding events when the Red River exceeds 37-feet</i>	When floodwaters are held in the Upstream Mitigation Area it may impact how quickly the land is able to dry out and be planted.	 Compensation through Purchase of Easement  Prevent Plant  Crop Insurance  Post-Operation Cleanup
<b>Summer Operation</b> <i>Historic rainfall or other event that would cause the Project to operate when crops are growing</i>	In the unlikely event the Project operates during the normal growing season, it would be likely damaging to crops growing in the fields. Holding floodwaters in the Upstream Mitigation Area could damage the plants.	 Compensation through Purchase of Easement  Summer Operation Supplemental Crop Loss Program  Post-Operation Cleanup
<b>Organic Farmland</b> <i>Certified land in Upstream Mitigation Area</i>	Land that is certified to produce organic crops can not sustain floodwater impacts and retain certification.	 Compensation through Property Right  Early Acquisition & Move to Reestablish Organic Certification
<b>Farmsteads or Businesses</b> <i>Location may be altered by Flowage Easement Requirements</i>	Farm operations located within the Upstream Mitigation may need to be moved due to Flowage Easement requirements.	 Compensation through Property Right  Farmstead Re-Establishment Program  Relocation Benefits



## Dispute Resolution Board

- Informal, administrative forum for property owners to file claims for damages not previously recognized.
- Modeled after a similar process created for the North Dakota State Water Commission (NDSWC) for the Devils Lake outlet project.



## Summer Operation Supplemental Crop Loss Program

- The Program would provide producers with coverage for the risk associated with Project induced flooding on growing crops if the Project operates during the summer.
- This Program is important because it is anticipated that producers will not be able to utilize the federal crop insurance programs for damages caused by operation of the Project.



## Relocation Benefits

- Potential financial allowances to help relocate those impacted by the Project.



## Post-Project Operation Cleanup & Repair Plan

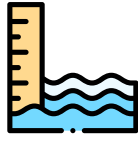
Operation of the Project may cause debris to accumulate within and along the edges of the Upstream Mitigation Area.

- The plan for private-lands is patterned after well-known clean-up week where items can be piled up for collection. Property owners can also seek assistance with debris removal.
- The public-lands repair and debris clean-up plan is patterned after the approach FEMA uses for post-disaster damage. This includes assessment and reimbursement.



## Farmstead Re-Establishment Program

- Potential financial allowances to help reestablish farmsteads, businesses, and nonprofit organizations.
- The assistance will be in the form of a forgivable loan based on actual costs for a functionally equivalent operation.



# Mitigation Plan Overview

## Flowage Easements (Property Rights)

Flowage Easements will be purchased and applied to properties in the upstream mitigation area. The value of each flowage easement will be determined through a market based appraisal considering all affects of additional flooding, and the highest and best use of the property to determine the market value of the easement.



### Informational Overview

## Property Acquisition Process

- There is a well-defined process for property acquisition that follows local and state law. A complete list of steps is available at [FMDiversion.gov/property](http://FMDiversion.gov/property)
- The main point of contact for every property owner is their land agent. All property owners that are impacted will have an individual land agent to work with them.

## Developing Flowage Easements

### Phase 1 Report

Provides foundation for mitigation values

Categorized two types of impact



**Easement Impact - 8% to 10%**  
Damage caused by development restrictions



**Flood Impact - 7% to 25%**  
Damage caused by water on the property during extreme flooding events and Project operation

+

### Phase 2 Report

Modeling of actual impact across the property + Parcel-specific data with an appraisal

### Flowage Easement

Land subject to a flowage easement is privately owned land that has certain perpetual rights granted. Namely the right to flood it in connection with the operation of the Project or other potential restrictions in regards to development or habitation.

## Implementing Flowage Easements

Four specific Zones clarify the type of Flowage Easement that will be needed on specific properties.

Zone	Definition	Zone Easement Requirements
<b>Zone 1</b> <i>Required by USACE</i>	An area defining the volume of floodwater storage required to ensure proper operation of the Project.	<ul style="list-style-type: none"> <li>- Development of insurable structures not allowed</li> <li>- Existing structures must be removed</li> <li>- Placement of fill not allowed</li> <li>- Limited potential to map some structures out of Zone 1</li> </ul>
<b>Zone 2</b> <i>Required by USACE</i>	An area outside of Zone 1 where the Project causes more than 1-foot of impact.	<ul style="list-style-type: none"> <li>- Development with certain restrictions allowed and vary by Zone</li> </ul>
<b>Zone 3</b> <i>Required by ND Office of the State Engineer</i>	An area in North Dakota outside of Zones 1 and 2 where the Project causes more than 0.5-feet of impact.	
<b>Zone 4</b> <i>Required by the Minnesota DNR</i>	An area in Minnesota outside of Zones 1 and 2 where the Project causes more than 0.1-feet of impact.	

