METRO FLOOD DIVERSION AUTHORITY

PROJECT UPDATE

(Benson)

US Army Corps of Engineers®
St. Paul District

FARGO MOORHEAD DIVERSION PROJECT

FAQ | WILD RICE DAM REMOVAL

MAY 2017

What is the project?

The dam will be removed to improve passage for fish and macroinvertebrates, such as mussels, and eliminate safety concerns associated with this particular dam. This project will serve as an environmental mitigation project for the Fargo-Moorhead Flood Risk Management Project.

Where is this project located?

The Wild Rice River dam site is located just north of the Wild Rice Bar and Grill and only 1 mile (3.4 river miles) upstream from where the Wild Rice meets the Red River of the North.

Why was this site chosen?

Monitoring of the Wild Rice River was completed in 2011 and it included studies on geomorphology, physical habitat and fish and macroinvertebrate presence. Monitoring confirmed there is relatively poor habitat throughout the lower Wild Rice River, which may be due to the dam preventing connection of different habitat types. Removing the dam should improve biological movement and productivity.

What are the safety concerns surrounding this dam?

Low head dams pose a risk of injury or drowning to canoers, kayakers and swimmers. The project will improve safety by eliminating the dangerous hydraulic roller that forms at the base of low-head dams. Dam removal also provides some small improvement in safety by removing any potential for future dam failure. This is also an important factor in why this site was chosen.

When will it happen?

If federal funding is received, the Corps anticipates awarding a construction contract in the fall of 2017. Dam removal will be completed during periods of low water depth.

Will the water level in the river drop?

Removing the dam will result in lowing the water by 4 to 5 feet immediately upstream of the dam during low flow conditions. Minimum water depth is 1.5 feet for fish passage. The drop in upstream water elevations will taper off with greater distance from the dam and have no effect about 5 miles upstream.

What are the impacts to erosion?

The existing dam is causing significant erosion, creating a deep scour hole on the downstream side of the dam. For this project, rock will be placed to stabilize the bank at the existing dam site and fill in the scour hole. Lowering upstream water elevations could increase the rate of bank failure, however, such failures are already occurring in the upstream area and will likely continue if the dam is not removed. Removing the dam will have a minor impact to the downstream channel bank slide, since the water depth on the downstream side of the dam should still remain at the same level and the flow should be less turbulent.

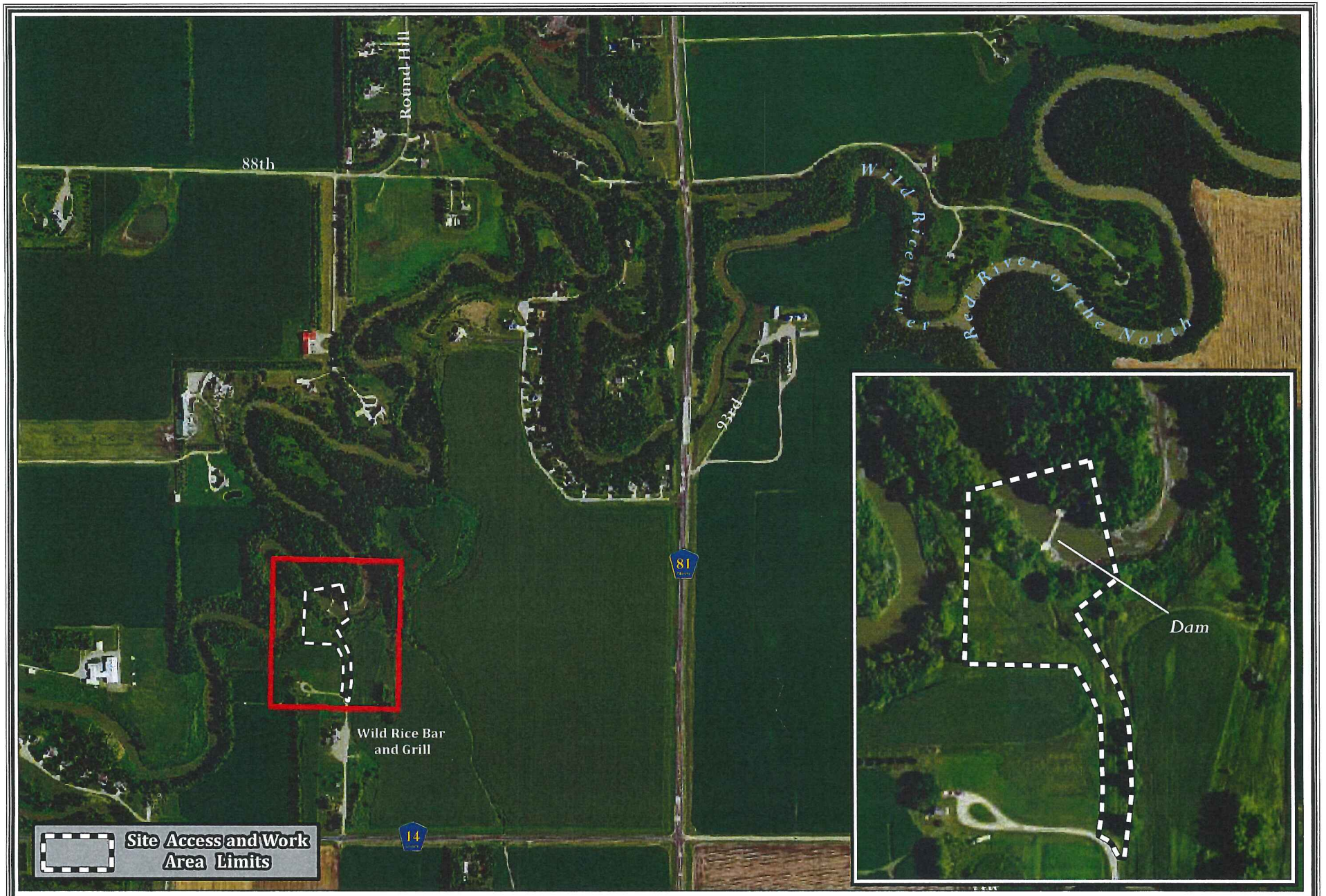
Was an analysis conducted under the National Environmental Policy Act?

Yes, and the document can be found at http://www.fmdiversion.com/studies-technical-documents/

What other options were considered for this project?

Building a rock rapids fish passage on top or next to the existing dam was considered, but it was determined that while rock rapids may work for some fish species, dam removal would be more effective for all aquatic species. It would also cost four times more than dam removal.

Replacing the dam and including fish passage was also considered. This alternative would improve the risk of potential dam failure but public safety would remain an issue. Further, it would not as effective of an environmental mitigation project for connecting the Wild Rice River. It would also be more costly than the removal of the existing dam.



St. Paul District
GIS CENTER
US Army Corps
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Wild Rice River Dam, ND - Parcels

Fargo Moorhead Metro Flood Damage Reduction Project

Base Image: ESRI WMS World Imagery

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US Army Corps of Engineers®
St. Paul District

FARGO-MOORHEAD AREA DIVERSION PROJECT

BIOTIC AND GEOMORPHIC MONITORING PROGRAM

December 2016

The U.S. Army Corps of Engineers, St. Paul District, is completing biotic/biological and geomorphic surveys in the Fargo, N.D./Moorhead, Minn., region as part of the Fargo/Moorhead Metropolitan Area Flood Damage Reduction Project. These surveys of the physical environment will provide the Corps with baseline information of the biological and geological environment before construction of the project. The Corps is committed to minimizing environmental impacts to the land and intends to have full and open communication with landowners in regards to these survey activities. All people on-site will be instructed to minimize any disturbance to property. See page 2 for a map showing all of the biotic and geomorphology survey sites.

BIOTIC SURVEYS

The purpose of the biotic surveys is to characterize the general ecological conditions of the rivers and streams affected by the project. Work will include monitoring the physical habitat and collecting and identifying fish and invertebrates (i.e., bugs, clams). Electrofishing techniques will be used to stun fish, collect them, observe them and return them to the river. Invertebrates will be collected from the bottom of the river and sent to a lab for analysis. Work is planned to begin in 2017 and will include approximately three half-day events per site. Initial site visits are planned for early-summer but could be scheduled to a later date based on flow conditions. Actual sampling will likely occur later in July or August. Additional surveys may occur in later years prior to construction and will occur again following project construction and operation. The results of these surveys will help biologists confirm impacts as a result of the project and the effectiveness of mitigation. Work will be done by a crew of two to three people in the water with approximately one to five people watching from the shore.

Biotic survey, 2011 Rush River

GEOMORPHOLOGY SURVEYS

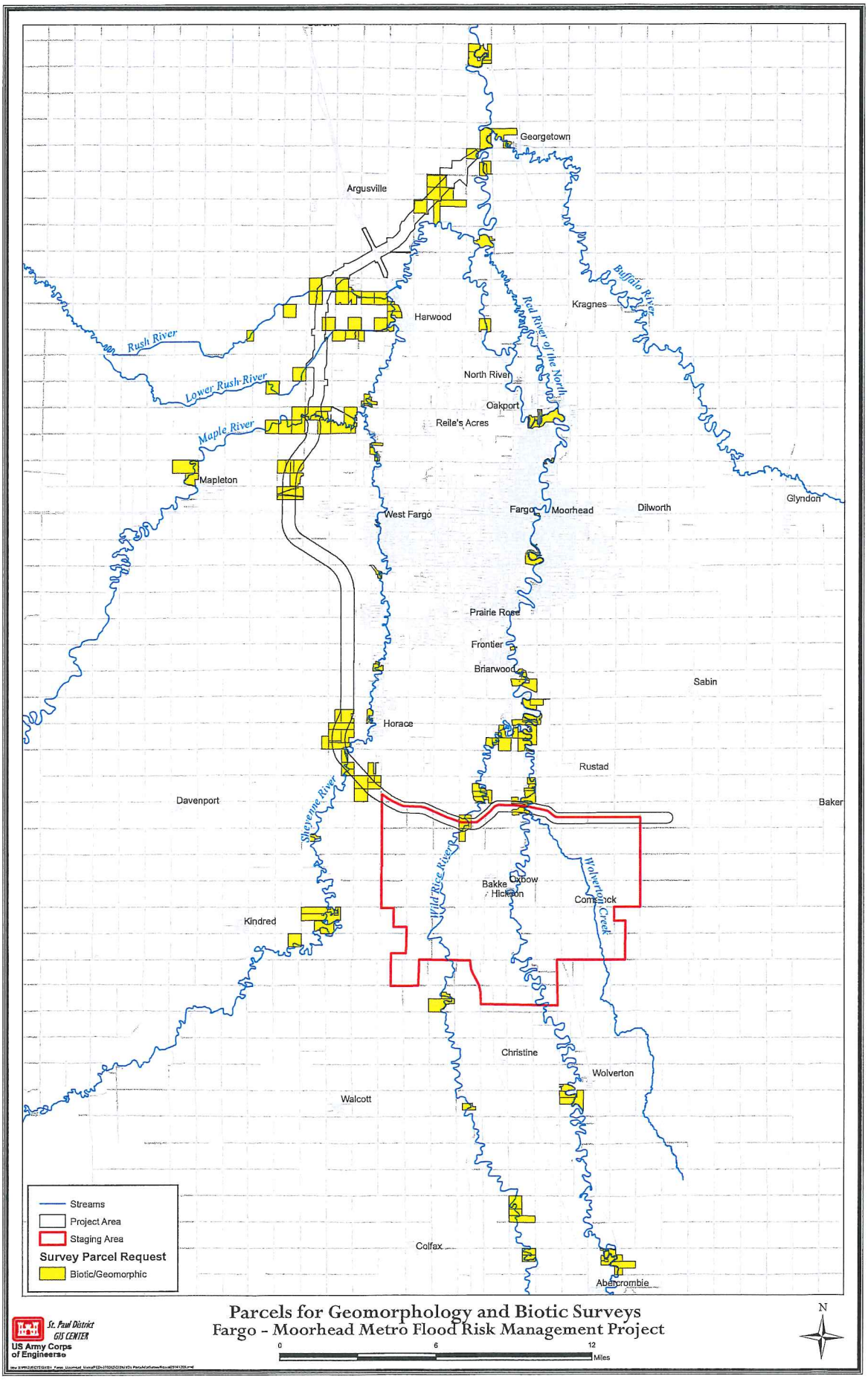
The purpose of the geomorphology surveys is to collect data at regularly spaced intervals before and after completing the project, as well as after flooding. The results of these surveys will be used to evaluate potential interactions between near and in-channel land-surface processes and the flood risk management project. Surveys will include measurement of width, depth, velocity and discharge of stream flow. Surveyors will collect stream bank and instream sediments and water samples and document vegetation types and sediment cores to establish deposit properties and depths. The anticipated timing for the regular sampling is every other year for up to three sampling cycles in a 5-year period both before and after project construction completion. Additional surveys will more than likely be performed in subsequent years and after flooding to identify any geomorphic changes. As outlined in the 2011 Final Feasibility Study and Environmental Impact Statement, no significant adverse impacts from the project are anticipated.

Geomorphology survey, 2011 Rush River

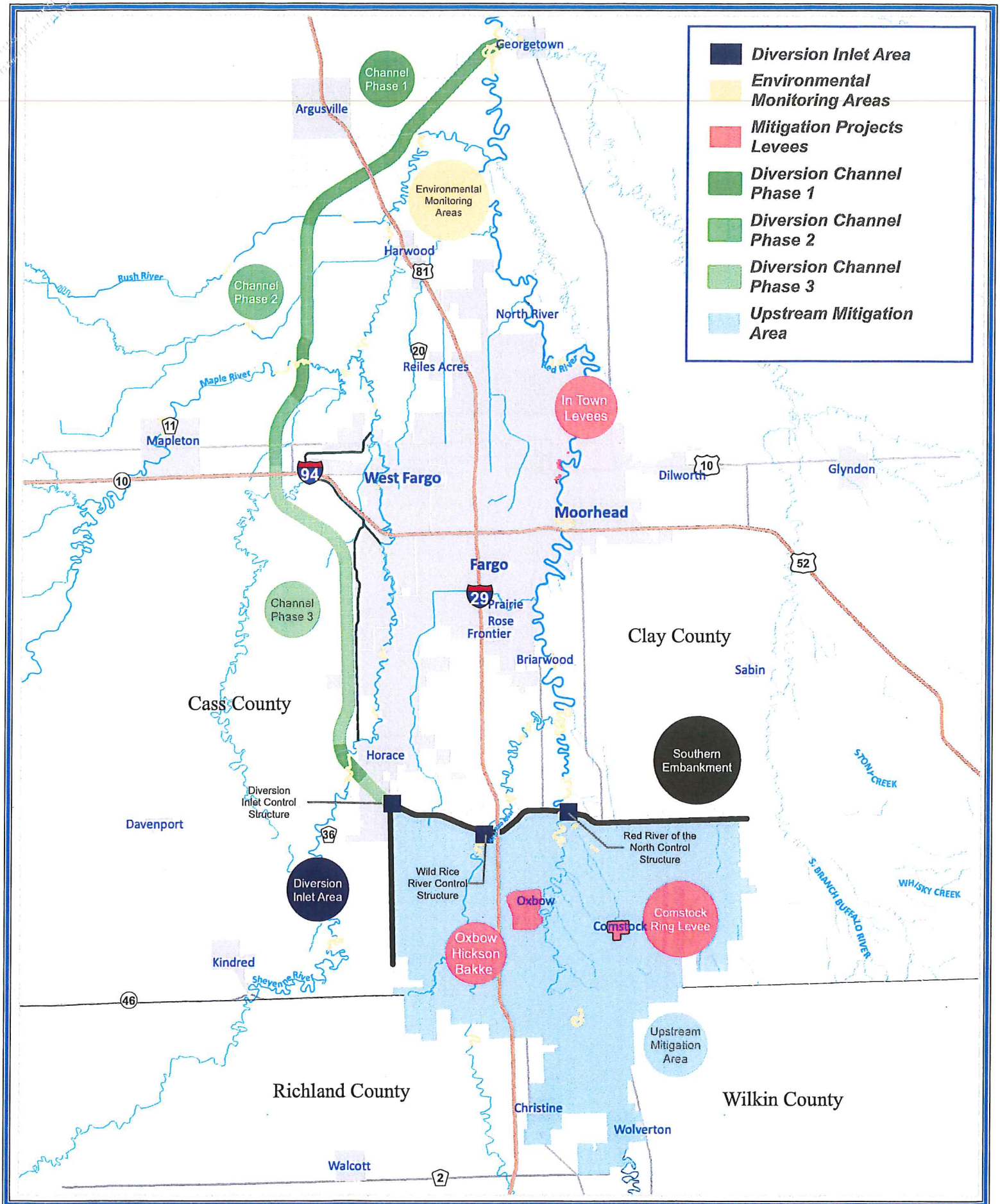
CONTACT INFORMATION

For questions or comments regarding the biotic and geomorphic monitoring surveys, please contact **Kimberly Warshaw, Corps of Engineers, at 651-290-5327**.

For questions or comments regarding land acquisition, please contact **Joe Herbst, Diversion Authority, at 701-364-9111**.



Parcels for Geomorphology and Biotic Surveys
Fargo - Moorhead Metro Flood Risk Management Project



Maps are for graphical purposes only. They do not represent a legal survey. While every effort has been made to ensure that these data are accurate and reliable, The Diversion Authority does not guarantee the accuracy of the information, and waives any warranty or guarantee of any kind, express or implied. The data involved in the project is continuously refined and revised; you should not rely on this information for technical purposes or accuracy.

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FM Area Diversion Key Acquisition Areas

4/18/2017

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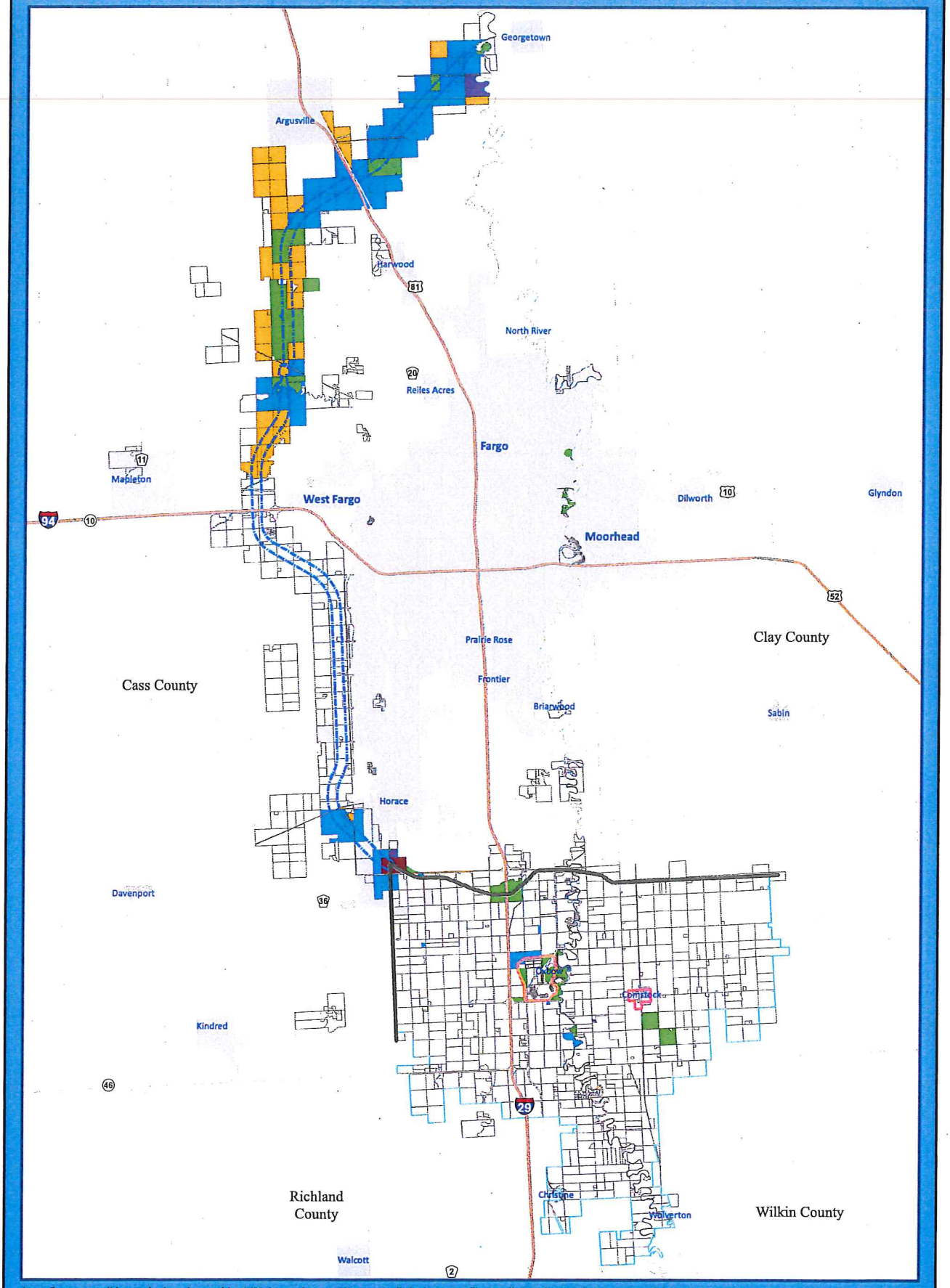

Any reliance upon this map is at user's own risk. AE2S does not warrant the map or its features are either spatially or temporally accurate or fit for a particular use.
Date: 4/19/2017 | Coordinate System: NAD 1983 StatePlane North Dakota South FIPS 3302 Feet

STATUS

- Impacted Parcel (1,591)
- Appraisal Pending (71)
- In Negotiation (124)
- Purchase Agreement Signed (15)
- Acquired; Easement Secured (147)
- Condemnation for Acquisition (5)

0 1.75 3.5 Miles

Property Acquisition Status Report

4/19/2017

FM AREA DIVERSION PROJECT

AE2S Advanced Engineering and Environmental Services, Inc.

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PROPERTY ACQUISITION PROCESS

INFORMATION SHEET

DECEMBER 2016

FM AREA DIVERSION PROJECT

PROCESS

DESIGN SHOWS PROPERTY IS NEEDED

Design team including the U.S. Army Corps of Engineers, HMG or the P3 firm let the Program Management Consultant know the property is needed.

APPROVAL TO BEGIN

The Diversion Authority Finance Committee reviews the need and if approved, submits it to the Cass County Joint Water Resource District (CCJWRD). A land agent is brought on board to work with the property.

RIGHT OF ENTRY REQUESTED TO SURVEY PROPERTY SENT

Right of Entry requested so property can be surveyed.

LAND AGENT CONTACTS

Land agent is in contact with property owner. A land agent will be assigned to assist with every affected parcel.

STEPS TO DETERMINE FAIR MARKET VALUE BEGIN

The property is appraised. The appraisal must follow federal standards. Draft appraisal report submitted for review and the Just Compensation value is approved by the CCJWRD in accordance with state and federal law. If the acquisition requires relocation, the cost of relocation to a similar home that is "decent, safe and sanitary," is also presented to the property owner.

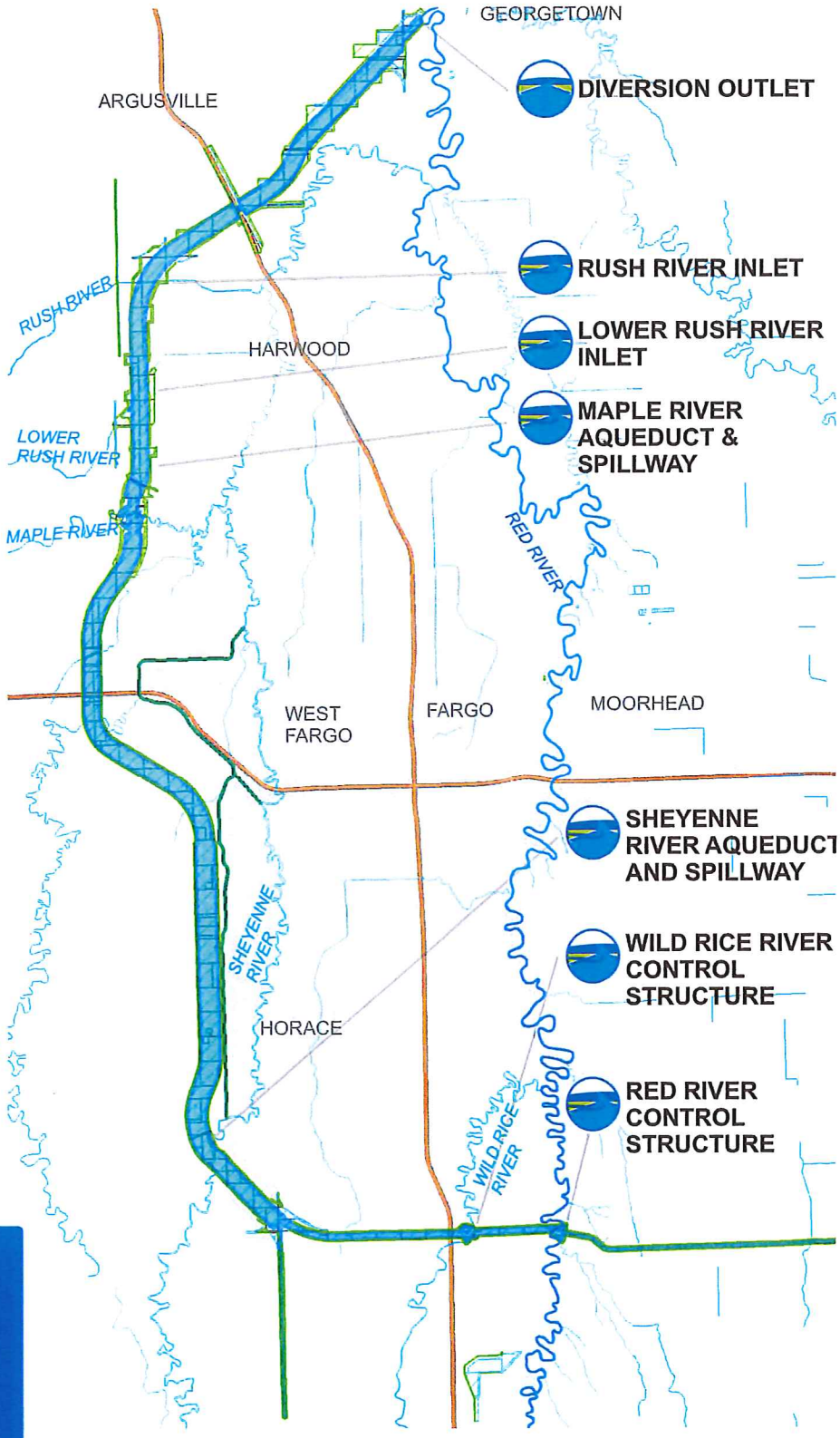
LETTER OF INTENT TO ACQUIRE SENT

The land agent sends the property owner a certified letter with a Notice of Intent (NOI) to Acquire. Land agent in contact with the property owner.

OFFER OF JUST COMPENSATION MADE

If the owner accepts the offer, the purchase agreement is signed and a closing date is set. If the owner does not agree with the opinion of value, the owner works with the land agent to arrive at a mutually agreeable price.

For more information visit
www.FMDiversion.com



Quick Take Timeline and Steps (per SB2047)

May 15, 2017

Introduction

The following timeline and steps are based on the interpretation of Senate Bill 2047 passed during the North Dakota 65th Legislative Assembly, and will become effective August 1, 2017. The Cass County Joint Water Resource District (CCJWRD) will utilize the following timeline and steps for acquisition of property rights for the FM Area Diversion Project.

Timeline / Steps

Step	Timeline
1. Complete pre-acquisition processes. Including: Identification of parcels and common ownership, Contracting actions, Rights of entry, Certificates of surveys, Obtain and review abstracts.	
2. Appraisal of property rights ordered	Day 1
3. Appraisal reviewed and just compensation amount approved by CCJWRD Board	Day 60
4. Contact with property owners and provide property owners with copy of appraisal of property rights.	Day 61
Informal negotiations	+60 days
5. Informal negotiations between Land Agent and Property Owner	Day 121
Formal negotiations – If no agreement, no sooner than 60 days, proceed into formal negotiations	
6. Send to property owner by certified mail the appraisal and offer of just compensation.	Day 121
If no agreement, no sooner than 15 days...	+15 days
7. Send to property owners by certified mail, an invitation to meet in person with CCJWRD representatives.	Day 136
8. Meet with property owner	Day 136 – 166
If no agreement, no sooner than 30 days...	+30 days
9. Send to property owner by certified mail, a notice that CCJWRD intends to take possession of the right of way within 30 days if there is not agreement regarding compensation.	Day 166
If no agreement, ...	
10. CCJWRD requests approval from Cass County Commission for approval to take possession of the right of way by utilizing quick take eminent domain.	Day 167
11. Cass County Commission agrees to consider request from CCWJRD, places the topic on its agenda, and provides a 30-day notice to the property owner of the public meeting.	Day 167
12. CCJWRD board chair files affidavit to Cass County Commission verifying that no reference or threat of quick take eminent domain was used during negotiations.	Day 167
	+30 days
13. Cass County Commission holds public meeting and votes to approve use of quick take eminent domain by CCJWRD to take possession of right of way.	Day 197 (or the next regular County Commission Meeting)
14. CCJWRD board chair files affidavit stating the CCWJRD fulfilled the negotiating steps and deposits the amount of the written offer with the clerk of district court.	Day 198
Meeting schedules and contingency allowance	+30 days
15. Done	Day 228