

DIVERSION AUTHORITY Land Management Committee City Commission Room Fargo City Hall Wednesday, May 16, 2018 3:00 p.m.

- 1. Agenda Review
- 2. Approve March 21, 2018 Minutes (item A)
- 3. Opportunistic Property Acquisitions Discussion (item B)
- 4. Plan of Action for Oxbow Lots (item C)
- 5. Land Acquisition Directives (item D)
- 6. Flowage Easement Study Update
- 7. CCJWRD Update
- 8. Other business
- 9. Next meeting June 27, 2018

DIVERSION AUTHORITY

Land Management Committee
City Commission Room
Fargo City Hall
Wednesday, March 21, 2018
3:00 p.m.

Present: Clay County Commission Representatives Kevin Campbell and Jenny Mongeau; Moorhead City Engineer Bob Zimmerman; Fargo Division Engineer Nathan Boerboom; Moorhead Mayor Del Rae Williams; Oxbow Mayor Jim Nyhof; Fargo City Administrator Bruce Grubb; Cass County Commission Representative Mary Scherling; Cass County Joint Water Resource District Representative (CCJWRD) Rodger Olson; Fargo City Commissioner John Strand.

Others present: AE2S Program Manager Eric Dodds.

Absent: Cass County Commission Representative Chad Peterson.

The meeting was called to order by Ms. Scherling.

Agenda Review

Mr. Zimmerman moved to approve the agenda. Second by Mr. Olson. All the members present voted age and the motion was declared carried.

Minutes Approved

Mr. Olson moved the minutes from the December 10, 2017 meeting be approved. Second by Mr. Campbell. All the members present voted aye and the motion was declared carried.

Mr. Peterson joined the meeting.

Updated Property Acquisition Schedule

Mr. Dodds said the updated acquisition schedule is included in the updated mitigation plan.

In response to a question from Ms. Scherling asking if representatives of the Land Management Committee had reached out to newly-affected property owners, Mr. Dodds said there has been contact with several residential property owners in the Stanley Township area and other property owners, including one who has a horse barn on County Road 16.

Ms. Scherling said to be sure all the townships are aware of what is going on as she does not want someone who is considering retirement or someone who wants to put their house on the market does not know about possible changes with the Diversion project that could affect them.

Mr. Dodds said the updated mitigation plan was part of the new permit submitted to the Minnesota Department of Natural Resources (MDNR) and the schedule is important as the Committee works towards getting land ready for construction. He said the mitigation plan and proposed acquisition schedule is synced with the U.S. Army Corps of Engineers' schedule regarding the southern embankment, pending funding and permits. He said the channel is broken into three phases and what is proposed is to have acquisitions for Phase 1 completed by March 2019 and Phase 2 by July 2019. He said Phase 3 acquisitions have not yet started; however, Phase 3 has a finalized date of February 2020. He said these dates will be consistent in the P3 agreement, and the schedule is all pending a green light from the MDNR. He said in the features constructed by the Corps, there is a breakdown of how the Corps anticipates constructing or designing features of the southern embankment and the acquisition schedule dates line up with what the Corps has proposed. He said this is more of an awareness item right now and there are many complexities built into the updated plan. He said a related item in the updated plan is there was some talk prior to last fall of who will be the acquiring entity in Moorhead. He said he did not know if it would be the City of Moorhead or Clay County or if a joint entity would be formed. He said that is something the Committee should start to work on.

In response to a question from Ms. Scherling about the newly impacted areas in the northern area of Cass County due to the revised 37-foot rule and at what point will it be decided who is in and who is out, Mr. Dodds said that information will not be known until updates to the hydraulic models are completed.

Ms. Scherling said she does not want to surprise people. She said there were some people who felt they were going to be protected and now they are not and they may not even know due to the fact that it is not obvious on the map. She said the sooner that information is known the better, assuming Plan B gets the green light. Mr. Olson said there is going to be micro-siting of the alignment, therefore if there is even a possibility a property will be affected, property owners need to be forewarned and should plan accordingly.

Mr. Boerboom said micro-siting would be complete in the next few weeks, which will involve shifting some things a few hundred feet at most, not by miles. He said the priority is to look for opportunities to avoid impacting homes. He said he does not expect wholesale changes to what is on the map today.

Mr. Dodds said land acquisitions stopped out of sensitivity to MN concerns on the project and the appearance of plowing forward. Land acquisitions did not stop specifically due to the injunction. He said a wish list of activities was submitted to MDNR after the new permit application, and the wish list included asking to start some things due to long lead times and contracts that are on hold. He said the permit process needs to go forward; however, perhaps another avenue with the MDNR is some of these wish list items that are not construction-related can start or continue, as those items are not hinging directly with the permit.

Mayor Williams said the wish list mailed to the MDNR included the rationale for the items on the list. She said the MDNR will look to their new team to answer those questions, as they will be the ones most involved in the project.

Mr. Zimmerman said dates were included in the updated mitigation plan due to the fact that if dates were omitted, the plan would be viewed as incomplete. He said the updated mitigation plan is a draft stating this is a vision of what the Committee wants to do, along with the wish list the mayor referenced. He said a list of questions about the permitting process was submitted and as the Committee engages with the MDNR permitting team, some of those questions will be addressed.

In response to a comment from Mr. Campbell, stating phased permitting is the only way to meet the requirements of the MDNR, Mr. Zimmerman said the first two questions on the wish list sent to the MDNR had to do with phased permitting.

In response to a question from Mr. Nyhof about the injunction, Mr. Dodds said if there is a permit decision that means Plan B is the new project and that will render the old project nonexistent. He said the injunction was against the old project; therefore, it could be an avenue to submit to a judge that the old project is gone and the new project is permitted, therefore would the judge consider lifting the injunction.

Commissioner Strand said he is concerned that there is an assumption the Diversion Authority is moving ahead before it can. He said the focus right now should be on intown protection. He said there is a plan if there is a permit; however, he advises caution and public relations are important.

Mr. Peterson said it is good that timelines are being established and depending on political powers, the dates are indeterminate. He said it does show just how long this project is actually going to take.

Updated Mitigation Plan

Mr. Dodds said Version 1 of the mitigation plan was submitted a couple of years ago with the original permit application. He said the mitigation plan was always a living document and it was known that there would be updates. Therefore, he said, with the submittal of Plan B, it was time to do an update of the mitigation plan. He said with Volume 2, there was quite a bit of review and better processes. He said the MDNR commented previously that flowage easements were not necessarily mitigation and while the Committee may or may not agree, the title of the document was changed to cover more than just mitigation: it also includes plans to acquire property rights. He said Volume 2 includes the process for acquiring land in North Dakota and Minnesota and other details such as appraisal reviews, review forms, presenting offers, negotiations and maps of impacted parcels. He said it has been suggested that early acquisition of property would be allowed rather than waiting until it is scheduled if a property owner is interested in selling. He said with the embankment change in Minnesota, there is a significant reduction in impacted organic land. He said with the previous plan, 3,000 acres of organic land would have been impacted and now only about 300 acres are impacted. Another section of Volume 2 deals with disposal of excess property, he said, specifically if property owners want to sell an entire parcel for estate planning or tax purposes. One of the biggest sections of Volume 2, he said, is how to treat property in the upstream mitigation areas where there are both structures that need to be acquired and land with flowage easements. He said structures are split into five categories: Category 1 deals with structures in the floodway, which has not been defined due to Plan B and will be define through the Conditional Letter of Map Revision (CLOMR) process this fall; however, those structures will have to be removed according to the Federal Emergency Management Agency (FEMA) rules. Category 2 deals with structures that have more than two feet of water at the structure, and these are required to be removed or taken out. Category 3 are structures with between 2 feet to half a foot of impact, and those are likely need to be acquired but there will be discussion as to if those structures can be kept, elevate them or do some dry floodproofing if it is not residential. He said FEMA will consider the options. He said there are many nuances in Category 3 and before any policy decisions are made, the Committee may want to know how many properties are in each of these categories. Category 4, he said, are structures with less than half a foot and those elevations will need to be field verified. He said once elevations are known to be accurate, the Committee will follow the same path as Category 3. Category 5 is structures that have very minimal impact, he said, and the Corps is responsible for doing a takings analysis, and deciding what type of mitigation is needed, if any. He said the State of North Dakota and the State of Minnesota will require the Diversion Authority to get property rights to the maximum elevation of the spillway, which is determined to be 923.5 feet. He said everything below 923.5 feet would need a flowage easement. He said there will be a base rate for flowage easement rates that will apply to all areas.

Mr. Boerboom said in the 923.5-foot area, development would be allowed as long as it met local flood plain ordinances and there is a distinction that no development would be allowed in the floodway.

In response to a question from Ms. Scherling asking what the MDNR said was inadequate in the first application and what was changed in the second application, Mr. Dodds said he does not know how thoroughly the MDNR read the first mitigation plan; however, he said the first mitigation plan was not submitted early enough. He said there were some comments in the permit denial that "Topic X" was not addressed and there was also a lot of attention on environmental impacts such as biota, geomorphology and ongoing monitoring. He said the team took a hard look at all of it and addressed those topics with the help of the Corps. He said it was conveyed to the MDNR this is not a take it or leave it approach and input from the MDNR is wanted.

Ms. Scherling said the new mitigation plan is a living document and when work with individual landowners is done, there will be unique situations. She said the updated mitigation plan is very impressive.

Mr. Dodds said a new section of the mitigation plan is a dispute resolution board. He said the North Dakota State Water Commission had a model of the board set up regarding discharges from the Devils Lake outlet for people along the Sheyenne River. He said if there was a problem property owners could file a dispute with the dispute resolution board, which was an independent panel. He said if there is someone impacted by the project, there is now a mechanism to file a dispute claim. This should

be viewed as a good intention of the Diversion Authority, he said, and that the Diversion Authority is not just closing the book and will not burden property owners with attorney fees.

Mr. Nyhof said Oxbow relocations required 40 lots, then it was recognized there were more lots, therefore those lots were added through the Corps rules for residents in the staging area. He asked if there are new candidates, does the Committee want to make that offer available for the new lots, Mr. Olson said Plan B is going to impact 15 or 20 more people, so it would be a good idea to have enough lots.

Mr. Strand said before the injunction, there was communication with leaders of the Native American communities; however, there has been an absence of Native Americans signing on to the new plan. He advised that the Committee talk to Native American leaders about the impact of cultural sites with the new plan.

In response to a question from Ms. Scherling asking when talks with cemetery boards will start, Mr. Dodds said as soon as there is some positive news from the MDNR. He said there have been meetings with many jurisdictions, civic organizations and farm groups who know there is a revised project.

Flowage Easement Valuation Plan

Mr. Dodds said he had a meeting with Crown Appraisal and is confident the Land Management Committee has a good team.

In response to a question from Mr. Campbell asking if the Diversion Authority is considering buying property instead of flowage easements, Mr. Dodds said that is a consideration; however, that means spending more money up front. He said if that is what the property owner wants, the Diversion Authority could buy the property, but it would be a lot of acreage.

In response to a question from Ms. Mongeau asking about topics in the new mitigation plan dealing with railroads and adding there needs to be a conversation at some point with the railroads, Mr. Dodds said that part of the design work, the time frames and Memorandums of Understanding are fairly well along and are separate, much like with the North Dakota Department of Transportation. He said there are also MOUs for township roads, small utilities and gas pipelines. He said those are attorney issues and attorneys will address some long-term mitigation features.

CCJWRD Update

Mr. Olson said there has been no purchasing activity; however, some things were closed.

Other Business

Rocky Schneider, AE2S Public Affairs Strategist, showed the Committee a new map on the FM Diversion website. He said micro siting is not yet done; therefore, some things on the map are subject to change. Mr. Peterson moved the meeting be adjourned. Second by Mr. Campbell. All members voted aye and the motion was declared carried.

The meeting adjourned at 4:02 p.m.

The next meeting will be April 25, 2018 at 3:00 p.m.

Land Management Committee Policy Discussion Document – Opportunistic Acquisitions

The following will be presented for discussion at the May 2018 Land Management Committee Meeting.

Opportunistic Acquisition Philosophy

General Categories

- 1. Active sellers (property is for sale on the "market")
 - a. Property Impacted by Project (yes, no, fringe?)
 - b. Not impacted, but near the Project
- 2. Willing sellers (property owner desires a buyout)
 - a. Property Impacted by Project (yes, no, fringe?)
 - b. Not impacted, but near the Project

Summary and Recommendations

All Potential Opportunistic Acquisitions

Each potential opportunistic acquisition will be reviewed for the individual and unique circumstances.

Category 1A: Actively Listed Properties, Impacted by Project

- **Summary**: Under this category, the Diversion Authority has an opportunity, and potentially a duty to purchase property that is actively being sold on the open market (so that a different buyer does not inadvertently purchase a property that need to be purchased for the Project).
- **Recommendation**: If the property is impacted by the Project, the Diversion Authority should approach the selling party and initiate discussions to purchase the property.

Category 1B: Actively Listed Properties, Near the Project

- **Summary**: Under this category, the Diversion Authority has an opportunity to purchase property that is actively being sold on the open market.
- **Recommendation**: Given that these properties are not expected to be impacted by the Project, the Diversion Authority should consider whether the property for sale could be a valuable asset for the Project, such as replacement land, used for mitigation of project impacts, or other purposes. If it is determined that the property could be valuable, it is recommended to initiate discussions with the selling party.

Category 2A: Willing Sellers, Impacted by Project

• **Summary**: Under this category, the Diversion Authority has an opportunity to purchase property from a willing seller who has approached the Diversion Authority with a desire to sell. Note that the Diversion Authority is not pursuing conversations with property owners at this time.

• Recommendation:

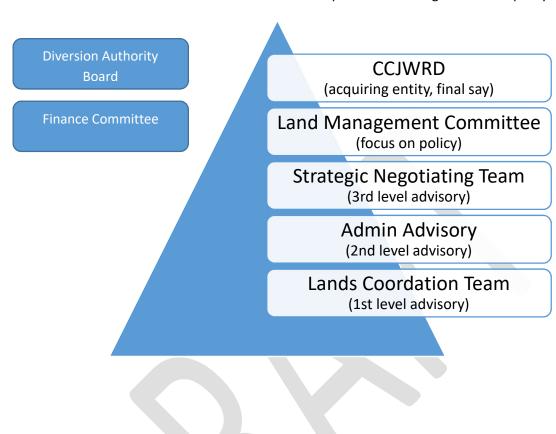
- o If the property is impacted by the Project, the Diversion Authority should respond to the selling party's request and hold discussions to purchase the property.
- If the property is on the "fringe" of impacts, the Diversion Authority should hold off on taking any property rights action until the impacts are further defined through environmental review, technical refinements (hydraulic modeling, design, etc.), and/or permitting.
- The "fringe" is defined as structures with less than two-feet of impact at the structure.

Category 2B: Willing Sellers, Near the Project

- **Summary**: Under this category, the Diversion Authority has an opportunity to purchase property near the Project from a willing seller who has approached the Diversion Authority with a desire to sell. Note that the Diversion Authority is not pursuing conversations with property owners at this time.
- **Recommendation**: The Diversion Authority should generally not purchase properties in this category. If extenuating circumstances warrant other consideration, the opportunistic property shall be brought for discussion to the lands coordination team.

Property Rights Acquisition Program Decision Making Structure

- 5-level structure for property rights acquisition program.
- Decisions should be made at the "lowest level" possible following established policy.



Plan of Action for Oxbow Reserved Lots

May 10, 2018

There are 10 "reserved lots" in the City of Oxbow on reserve for interested staging area residents from North Dakota. The lots will be reserved through Dec 31, 2020 and provide an additional relocation option. Staging area residents in North Dakota under Plan A (previous Diversion Project prior to the Governors' Task Force) were made aware of this option through multiple communications, including informational meetings, one-on-one meetings, and direct phone calls from the staff at the Cass County Water Resource District (CCJWRD). The staging area has changed with the development of Plan B, and as such, there are new staging area residents in North Dakota who may not be aware of this option and there may be previous residents who may now want to consider this option. The Diversion Authority wants to make sure that the staging area residents in North Dakota who will be displaced by the project know about the option to purchase a reserved lot in Oxbow.

The Diversion Authority (and its member entities) will use the following Plan of Action to ensure the staging area residents in North Dakota are made aware of the option to purchase a reserved lot.

- The formulation of Plan B was presented to several jurisdictions, including Stanley and Pleasant Townships in March and April 2018.
- A follow-up letter to all property owners in Stanley and Pleasant Townships will be sent to
 inform the property owners about Plan B. The letter will not specifically mention the Oxbow
 reserved lots, but will alert property owners that the project has changed, and invite the
 property owners to seek additional information from the project website
 (www.fmdiversion.com) and offer a contact name and phone number for questions.
- Plan B is undergoing environmental and permit review. Assuming the Project receives a permit
 in fall 2018, more direct contact will be made with all staging area residents to inform them that
 the Project is proceeding, and specifically reference the option to claim a reserved lot in Oxbow.
 The form of direct contact will be determined at a future time, but could include another round
 of phone calls, direct mailing, or an in-person meeting.
- Between now and then, County/City staff and other project representatives are expected to be
 in contact with some of the property owners in the staging area. During those contacts, the
 subject of the Oxbow lot option should be discussed as warranted with the property owners.
- Through these conversations, staging area residents in North Dakota will be made aware of the reserved lots and made aware of the December 31, 2020 release date for the lots.
- The feedback from the formal and informal communications will be used to inform the Diversion Authority's position regarding the number and timing of reserved lots desired for staging area residents in North Dakota.



FARGO-MOORHEAD AREA DIVERSION PROJECT

LAND ACQUIS	SITION DIRECTIVE (LAD)	LAD-00027	REV-01
DATE:	5/9/2018		
AQUIRING ENTITY:	Cass County Joint Water Resource Distr	icts (CCJWRD)	
WORK PACKAGE:	Southern Embankment - Reach A (WP 2	.7)	

The following property acquisitions are recommended and directed.

BACKGROUND:

The Diversion Authority approved a budget for opportunistic acquisitions that is intended to provide a source of funding for acquisition of properties where the property owner requests early acquisition or the property is actively listed for sale, provided the property would ultimately be needed for the project.

This Land Acquisition Directive (LAD) will serve as a tracking and reporting tool for early, opportunistic acquisitions. Each request for early acquisition will be presented as a revision to this LAD.

OPPORTUNISTIC PROPERTY ACQUISTIONS:

Parcel Map of all listed Property Parcels

The following Plan B Southern Embankment Reach A property acquisitions are recommended and directed. These parcels are currently and actively listed by a Real Estate Firm.

OIN	OWNER	PROP TYPE	ACREAGE
6, 8-22	Deb Brand Trust ETAL	Ag Land	155.7

ATTACHMENTS:

Recommended by:

Dean K. Vetter
Program Management Consultant / AE2S

Davidure

Do5/09/18

Date

Directed by:

Tony Grindberg
Diversion Authority Finance Committee

Signature

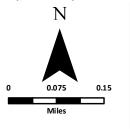
Date

Date

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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. All parcel acreages and legal descriptions shown hereon are based on County GIS data. Final acreages and legal descriptions to be determined by boundary survey. Coordinate System: NAD 1983 StatePlane North Dakota South FIPS 3302 Feet | Edited by: cwickenheiser

C:\Data\Projects\GIS Projects\FM Area Diversion\Projects\Land Acquisition\Project Work Package\!Project Wide\Individual Property Maps - General Inquiry\Brand Trust.mxd



www.ae2s.com | Advanced Engineering and Environmental Services, Inc.



BRAND TRUST PROPERTY GIS ACRES TOTAL = 149.63 DEED ACRES = 155.7

> FM AREA DIVERSION Map Date: 5/10/2018





FARGO-MOORHEAD AREA DIVERSION PROJECT

LAND ACQUIS	SITION DIRECTIVE (LAD)	LAD-00038	REV-01
DATE:	5/9/2018		
AQUIRING ENTITY: Cass County Joint Water Resource Dis		ricts (CCJWRD)	
WORK PACKAGE:	Upstream Mitigation Area – ND (WP 38	3)	

The following property acquisitions are recommended and directed.

BACKGROUND:

The Diversion Authority approved a budget for opportunistic acquisitions that is intended to provide a source of funding for acquisition of properties where the property owner requests early acquisition or the property is actively listed for sale, provided the property would ultimately be needed for the project.

This Land Acquisition Directive (LAD) will serve as a tracking and reporting tool for early, opportunistic acquisitions. Each request for early acquisition will be presented as a revision to this LAD.

OPPORTUNISTIC PROPERTY ACQUISTIONS:

The following Plan B Upstream Mitigation Area property acquisitions are recommended and directed. These parcels are currently and actively listed by a Real Estate Firm.

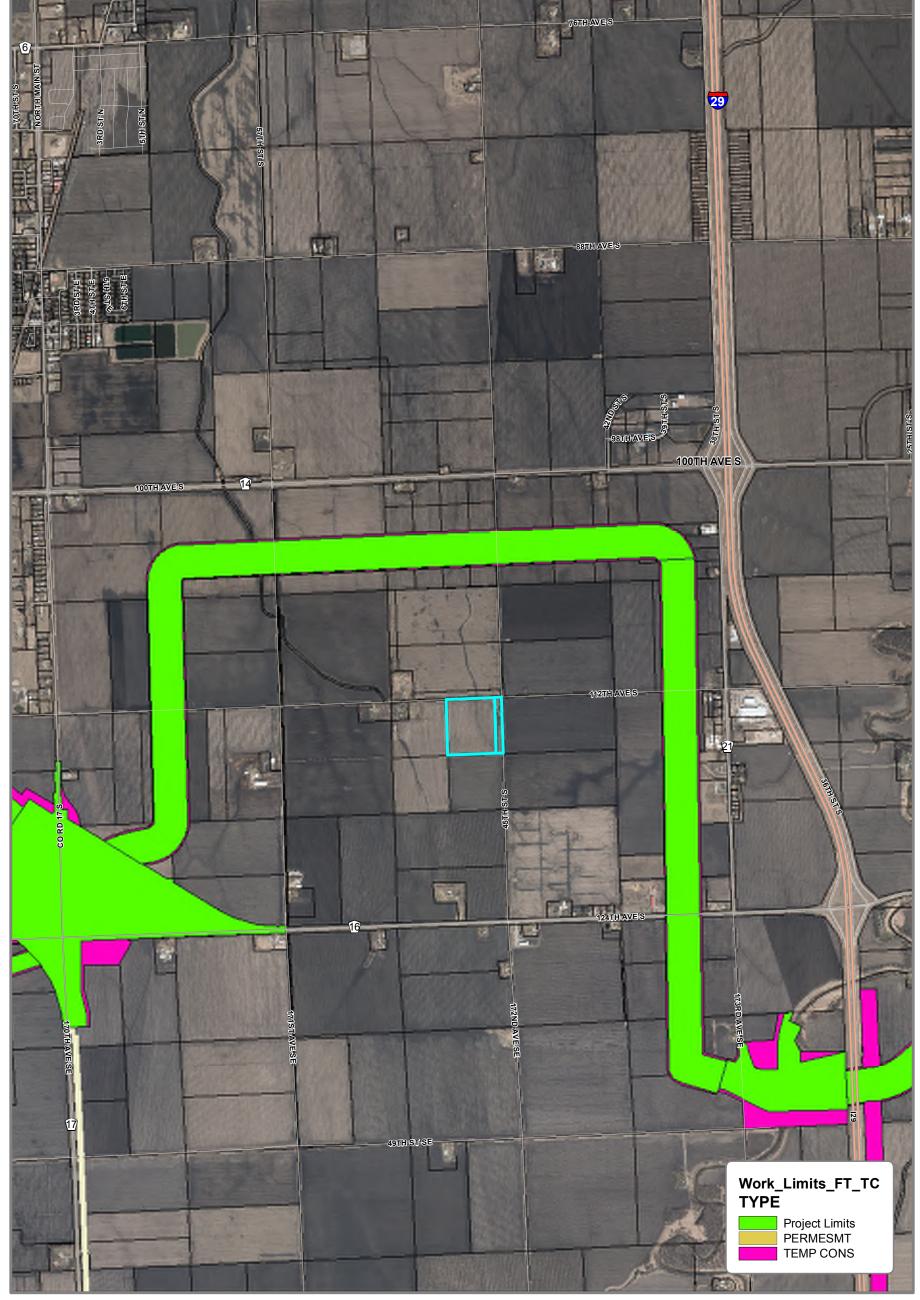
OIN	OWNER	PROP TYPE	ACREAGE
1103	Leonie A Rheault	Ag Land	35.01
1104	Leonie A Rheault	Ag Land / Rural Residence	5.03

ATTACHMENTS:

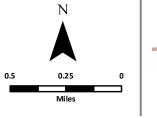
Parcel Map of all listed Property Parcels

Recommended by:	Dean K. Vetter Program Management Consultant / AE2S	Project Manager
	Drawkthuer	05/09/18
	Signature	Date
Directed by:	Tony Grindberg	Finance Committee Chairman
	Diversion Authority Finance Committee	Title
	Signature	Date

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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. Coordinate System: NAD 1983 StatePlane North Dakota South FIPS 3302 Feet | Edited by: cwickenheiser C:\Data\Projects\GIS Projects\FM Area Diversion\Projects\Land Acquisition\Project Work Package\!Project Wide\Overall LA Maps\General Project Map_useforEditing.mxd





SUBJECT PROPERTY - OIN'S 1103 AND 1104

FM AREA DIVERSION





FARGO-MOORHEAD AREA DIVERSION PROJECT

LAND ACQUIS	SITION DIRECTIVE (LAD)	LAD-00055	REV-01
DATE:	5/9/2018		
AQUIRING ENTITY:	Cass County Joint Water Resource Distr	ricts (CCJWRD)	
WORK PACKAGE:	Biotic and Geomorphic Monitoring Pro	gram (WP55)	

The following property acquisitions are recommended and directed.

SUMMARY OF PROPERTY NEEDS:	
Work Package	Biotic & Geomorphic Monitoring Program
Land Agent Firm	Various
Total Number of Parcels	392
Fee Title Acres	0 acres
Temporary Construction Easement Acres	0 acres
Long-Term Easement Acres	TBD
Number of Residential Properties	Do not need to acquire
Number of Farmsteads	Do not need to acquire
Property Acquisition Budget	TBD - Based on USACE recommended Easement boundaries
Completion Schedule	March 2020

ATTACHMENTS:

- Parcel Table (9 pages) & Map of all Bio-Geo impacted Property Parcels
- Bio-Geo Monitoring Sites by River/Creek
- USACE Biotic and Geomorphic Monitoring Program 1 page overview

Recommended by:	Dean K. Vetter Program Management Consultant / AE2S	Project Manager
	Dankthuer	05/09/18
	Signature	Date
Directed by:	Tony Grindberg	Finance Committee Chairman
	Diversion Authority Finance Committee	Title
	Canatura	Data
	Signature	Date

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OIN or PIN	Bio-Geo Monitoring Site	Current Owner	Property County	Property State
732	B1	ZIEGLER KENNETH E	Clay	MN
733	B1	GEORGETOWN CITY OF	Clay	MN
735	B1	BUFFALO RED RIVER WATERSHED	Clay	MN
54.900.0220	B1	ZIEGLER WILLIAM D	Clay	MN
54.900.0280	B1	WATT KIRK	Clay	MN
910	LR1	MIKE J & LINDA L APPERT	Cass	ND
911	LR1	HAJ JOHNSON FARM PROPERTIES LLLP	Cass	ND
887	RU1	NANCY & REX BYRD	Cass	ND
8636	RU1	JON W & JOANN E PETERSON REVOCABLE LIVING TRUS	Cass	ND
8648	RU1	FIRST TRUST NORTH DAKOTA	Cass	ND
588	RU1B	LESLIE & DELORES ELLINGSON	Cass	ND
593	RU1B	ZDEB FAMILY TRUST ETAL	Cass	ND
594	RU1B	CHRISTOPHER P & AMY GOURDE	Cass	ND
596	RU1B	VERNON & SHIRLEY A WILLIAMS TRUST	Cass	ND
8645	RU1B	CHRISTOPHER P & AMY GOURDE	Cass	ND
928	M1	ROERS, THEODORE J & PAULA M	Cass	ND
930	M1	NORWEST BANK ND, ETAL	Cass	ND
932	M1	LYLE SONDREAL	Cass	ND
933	M1	DOUGLAS J KUHN	Cass	ND
934	M1	DOUGLAS J KUHN	Cass	ND
8632	M1	ELDON W LANDBLOM EXEMPTION EQUIVALENT TRUST E	Cass	ND
915	M2	HEIDEN FAMILY LLP	Cass	ND
918	M2	HEIDEN FAMILY LLLP	Cass	ND
919	M2	HEIDEN FAMILY LLP	Cass	ND
920	M2	HEIDEN FAMILY LLP	Cass	ND
922	M2B	CASS COUNTY JOINT WATER RESOURCE DI	Cass	ND
923	M2B	CASS COUNTY JOINT WATER RESOURCE DI	Cass	ND
921X	M2B	HEIDEN FAMILY LLLP	Cass	ND
924N	M2B	CASS COUNTY JOINT WATER RESOURCE DI	Cass	ND
924X	M2B	HEIDEN FAMILY LLLP	Cass	ND
314	M3	BISHOP, ROBERT J	Cass	ND
315	M3	OTOS, LEE C LE	Cass	ND
8646	M3	JOEL W BISHOP	Cass	ND
8647	M3	JOEL BISHOP	Cass	ND
9106	M3	OTOS, LEE C LE	Cass	ND
9107	M3	SCHERWEIT, GAIL R	Cass	ND

	Bio-Geo		B	
OIN or PIN	Monitoring Site	Current Owner	Property County	Property State
171	R1	CLAY COUNTY	Clay	MN
172	R1	REGSTAD JAMES & DEBORAH K	Clay	MN
1211	R1	OHNSTAD, BERNARD	Cass	ND
1212	R1	OHNSTAD, ADELYNE LE	Cass	ND
9068	R1	WAMBACH GARY J & CAROL A	Clay	MN
173	R2	WAMBACH DOUGLAS & ROCHELLE	Clay	MN
1221	R2	CHARLES J RICHARD	Cass	ND
1222	R2	CASS COUNTY JOINT WATER RESOURCE DI	Cass	ND
1223	R2	CASS COUNTY JOINT WATER RESOURCE DI	Cass	ND
1224	R2	CASS COUNTY FLOOD PROPERTY	Cass	ND
1226	R2	EMILY RADEBAUGH	Cass	ND
4444	R2	DALE & MARY FLESBERG	Cass	ND
8609	R2	CHARLES J & ELIZABETH RICHARDS	Cass	ND
9071	R2	ZIEGLER KENNETH E	Clay	MN
9072	R2	ZIEGLER KENNETH E	Clay	MN
9171	R2	CLAY COUNTY	Clay	MN
9172	R2	ODEGARD THOMAS	Clay	MN
09.031.2000	R2	WATT KIRK	Clay	MN
3	R3	FARGO PARK DISTRICT,	Cass	ND
4	R3	FARGO PARK DISTRICT,	Cass	ND
477	R3	GESS ETAL ELAINE F	Clay	MN
492	R3	SIMMONS SHANE & ASHLEY	Clay	MN
493	R3	ANDERSON KEITH G & PAMELA	Clay	MN
8666	R3	VANRADEN HOMES INC	Cass	ND
9058	R3	BUCKLE DARREN	Clay	MN
58.198.0103	R3	BJORKMAN DAVID & MARI	Clay	MN
58.198.0104	R3	DOCKTER GLEN E	Clay	MN
8529	R4	CITY OF MOORHEAD	Clay	MN
8530	R4	MOORHEAD CITY	Clay	MN
8531	R4	CITY OF MOORHEAD	Clay	MN
8532	R4	CITY OF MOORHEAD	Clay	MN
8533	R4	CITY OF MOORHEAD	Clay	MN
8534	R4	CITY OF MOORHEAD	Clay	MN
8535	R4	CITY OF MOORHEAD	Clay	MN
8536	R4	CITY OF MOORHEAD	Clay	MN
8537	R4	CITY OF MOORHEAD	Clay	MN
8538	R4	CITY OF MOORHEAD	Clay	MN
8539	R4	CITY OF MOORHEAD	Clay	MN
8540	R4	CITY OF MOORHEAD	Clay	MN
8541	R4	CITY OF MOORHEAD	Clay	MN
8542	R4	CITY OF MOORHEAD	Clay	MN
8543	R4	CITY OF MOORHEAD	Clay	MN
8544	R4	CITY OF MOORHEAD	Clay	MN
8545	R4	CITY OF MOORHEAD	Clay	MN
8546	R4	CITY OF MOORHEAD	Clay	MN
8547	R4	CITY OF MOORHEAD	Clay	MN
8548	R4	CITY OF MOORHEAD	Clay	MN
8549	R4	CITY OF MOORHEAD	Clay	MN
8550	R4	CITY OF MOORHEAD	Clay	MN
8551	R4	CITY OF MOORHEAD	Clay	MN
8552	R4	CITY OF MOORHEAD	Clay	MN
8553	R4	CITY OF MOORHEAD	Clay	MN
8554	R4	CITY OF MOORHEAD	Clay	MN

	Bio-Geo		Duran	D
OIN or PIN	Monitoring Site	Current Owner	Property County	Property State
8555	R4	CITY OF MOORHEAD	Clay	MN
8556	R4	MOORHEAD CITY	Clay	MN
8557	R4	MOORHEAD CITY	Clay	MN
8558	R4	MOORHEAD CITY	Clay	MN
8559	R4	MOORHEAD CITY	Clay	MN
8560	R4	MOORHEAD CITY	Clay	MN
8561	R4	CITY OF MOORHEAD	Clay	MN
8562	R4	CITY OF MOORHEAD	Clay	MN
8563	R4	MOORHEAD CITY	Clay	MN
8564	R4	MOORHEAD CITY	Clay	MN
8565	R4	CITY OF MOORHEAD	Clay	MN
8566	R4	MOORHEAD CITY	Clay	MN
8567	R4	MOORHEAD CITY	Clay	MN
8568	R4	CITY OF MOORHEAD	Clay	MN
8569	R4	CITY OF MOORHEAD	Clay	MN
8570	R4	CITY OF MOORHEAD	Clay	MN
8571	R4	CITY OF MOORHEAD	Clay	MN
8572	R4	CITY OF MOORHEAD	Clay	MN
8573	R4	CITY OF MOORHEAD	Clay	MN
8574	R4	MOORHEAD CITY	Clay	MN
8575	R4	CITY OF MOORHEAD	Clay	MN
8667	R4	DANIEL H & EDNA T HOLM REVOCABLE LIVING TRUST	Cass	ND
8668	R4	FARGO CITY	Cass	ND
8669	R4	JOYCE B COLE TRUST ETAL	Cass	ND
9059	R4	FARGO PARK DISTRICT,	Cass	ND
9064	R4	MOORHEAD CITY	Clay	MN
9066	R4	MOORHEAD CITY	Clay	MN
9067	R4	MOORHEAD CITY	Clay	MN
9110	R4	FARGO PARK DISTRICT,	Cass	ND
9111	R4	FARGO PARK DISTRICT,	Cass	ND
58.100.0180	R4	SOFTING CHAD A & CYNTHIA	Clay	MN
58.235.0140	R4	DUFNER HUGH J	Clay	MN
58.235.0160	R4	BAER ZENAS	Clay	MN
58.436.0090	R4	MCCAULEY WILLIAM & BARBARA	Clay	MN
58.701.0020	R4	HOLLAND MARC & LADONNA	Clay	MN
58.861.0030	R4	MANNING DAVID B & HEIDI L K	Clay	MN
58.861.0040	R4	SWEEN STEPHEN & DARLINE A	Clay	MN
58.861.0050	R4	HAKK AUGUST	Clay	MN
364	R5	JETVIG CHAD	Clay	MN
365	R5	CLAY COUNTY	Clay	MN
366	R5	CLAY COUNTY	Clay	MN
367	R5	NOKKEN CORRINE M	Clay	MN
368	R5	CLAY COUNTY	Clay	MN
1018	R5	HECTOR, FRED M JR	Cass	ND
1227	R5	BRIARWOOD CITY,	Cass	ND
1228	R5	BRIARWOOD CITY,	Cass	ND
8608	R5	CASS COUNTY FLOOD PROPERTY	Cass	ND
9080	R5	CASS COUNTY FLOOD PROPERTY,	Cass	ND
19.007.1170	R5	NOKKEN CORRINE M	Clay	MN
394	R6	LEISETH TIMOTHY J & BRIAN T	Clay	MN
1023	R6	COSSETTE REVOCABLE TRUST, RENOLD R & DOROTHY	Cass	ND
1027	R6	COSSETTE, KIRK	Cass	ND
8618	R6	PUBLIC PARK	Cass	ND

	Bio-Geo		Property	Property
OIN or PIN	Monitoring	Current Owner	County	State
0040	Site	MUZELLA DIEL	•	
8619	R6	MIKE HARTEL	Cass	ND
8620	R6	MIKE HARTEL	Cass	ND
8621	R6	CASS COUNTY FLOOD PROPERTY	Cass	ND
8622	R6	FARGO CITY	Cass	ND
8623	R6	CASS COUNTY FLOOD PROPERTY	Cass	ND
8624	R6	CASS COUNTY FLOOD PROPERTY	Cass	ND
8625	R6	FARGO CITY	Cass	ND
8629	R6	RENOLD R & DOROTHY M COSSETTE TRUST ETAL	Cass	ND
9061	R6	SAUVAGEAU, LEEVON	Cass	ND
9074	R6	SCHEVING T C & LORI A	Clay	MN
9076	R6	SCHEVING T C & LORI A	Clay	MN
9078	R6	PARKE DUANE RENE & RONALD & LAURA KNOLL	Clay	MN
9081	R6	JOHNSON, LYNN ETAL	Cass	ND
9082	R6	JOHNSON, BRENT	Cass	ND
9101	R6	FARGO PARK DISTRICT	Cass	ND
19.020.2000	R6	LEISETH TIMOTHY J & BRIAN T	Clay	MN
9075	R7	BYE WILLIAM J	Clay	MN
9100	R7	LAVELLE, THOMAS M & JILL	Cass	ND
9102	R7	KELLER, GERALD F	Cass	ND
9103	R7	KELLER, GERALD & CAROLYN	Cass	ND
9105	R7	LAVELLE, THOMAS M & JILL	Cass	ND
9321	R7B	DROMSTED LLC	Clay	MN
9326	R7B	BYE WILLIAM J	Clay	MN
9334	R7B	TIMOTHY J LEISETH ETAL	Cass	ND
9335	R7B	CHRISTOPHER B & JEANNE D NARUM	Cass	ND
9336	R7B	CHRISTOPHER B & JEANNE D NARUM	Cass	ND
9342	R7B	MARK NYQUIST	Cass	ND
9364	R7B	JEANNE D & CHRISTOPHER NARUM	Cass	ND
249	R8	BLILIE SCOTT D & RUTH I	Clay	MN
				MN
250	R8	KENNETH BYE	Clay	
251	R8	Larry Dahlstrom	Clay	MN
809	R8	KAREN G OFFUTT	Cass	ND
810	R8	CASS COUNTY FLOOD PROPERTY	Cass	ND
811	R8	CASS COUNTY FLOOD PROPERTY	Cass	ND
9169	R8	BINGER KEVIN L & KENDRA D	Clay	MN
9325	R8	LIVDAHL PETER W & DEBRA A	Clay	MN
9381	R8	CASS COUNTY FLOOD PROPERTY	Cass	ND
9382	R8	JONATHAN D KRISTEN L KUTZER	Cass	ND
9383	R8	JEREMY D HOLCK	Cass	ND
9384	R8	CASS COUNTY FLOOD PROPERTY	Cass	ND
9385	R8	CASS COUNTY FLOOD PROPERTY	Cass	ND
9386	R8	CASS COUNTY FLOOD PROPERTY	Cass	ND
9387	R8	CASS COUNTY JOINT WATER RESOURCE DI	Cass	ND
9388	R8	CASS COUNTY FLOOD PROPERTY	Cass	ND
9389	R8	LEON & KAREN BACKER	Cass	ND
9392	R8	CHARLES ANDERSON ETAL	Cass	ND
9394	R8	DORIS M KYLLO	Cass	ND
9396	R8	CASS COUNTY FLOOD PROPERTY	Cass	ND
9397	R8	CASS COUNTY FLOOD PROPERTY	Cass	ND
9401	R8	MICHAEL D & CHERYL E POST	Cass	ND
9410	R8	DORIS M KYLLO	Cass	ND
		ANDERSON, LORI J		ND
175	R9	TANDERSON LORLI	Richland	13111

OIN or PIN	Bio-Geo Monitoring Site	Current Owner	Property County	Property State
1237	R9	NESS/DAVID ALAN	Wilkin	MN
1238	R9	NESS/HARRIET M	Wilkin	MN
1239	R9	NESS/TIMOTHY A	Wilkin	MN
1405	R9	ANDERSON, LORI J	Richland	ND
1606	R9	ANDERSON, LORI J	Richland	ND
1607	R9	ANDERSON, LORI J	Richland	ND
1608	R9	ANDERSON, LORI J	Richland	ND
9254	R9	ANDERSON, LORI J	Richland	ND
9255	R9	ANDERSON, LORI J	Richland	ND
9256	R9	ANDERSON, LORI J	Richland	ND
9258	R9	CIRKS, PENNY	Richland	ND
178	R10	BR FARMS LLLP C/O ROGER & KIMBERLY KRAUSE	Richland	ND
179	R10	MIRANOWSKI, MATTHEW & AMY	Richland	ND
180	R10	IHLAND, RICHARD & SANDRA	Richland	ND
181	R10	IHLAND, RICHARD & SANDRA	Richland	ND
1240	R10	BARTON, DUSTIN & JAKE	Wilkin	MN
1242	R10	MOEN, BRAD & JACQUELINE	Wilkin	MN
8597	R10	IHLAND, MYRON & SHERIDAN, CAROL	Richland	ND
8598	R10	RUDNICK, PATRICIA A ETAL &	Richland	ND
9113	R10	RUDNICK, PATRICIA A ETAL &	Richland	ND
9117	R10	LENQUE, PAUL J	Wilkin	MN
9118	R10	LENOUE/TRUSTEES MARVIN D & BJ	Wilkin	MN
9119	R10	BARTON, DUSTIN & JAKE	Wilkin	MN

	Bio-Geo		Proporty	Droporty
OIN or PIN	Monitoring Site	Current Owner	Property County	Property State
558	S1	CHARLES LARSON TRUST ETAL	Cass	ND
548N	S1	CASS COUNTY JOINT WATER RESOURCE DI	Cass	ND
548X	S1	CHARLES LARSON TRUST ETAL	Cass	ND
584	S2	OAKWOOD CEMETERY	Cass	ND
585	S2	WAYNE D FREEDLAND	Cass	ND
586	S2	WAYNE D FREEDLAND	Cass	ND
604	S2	NEAL S HOLLAND	Cass	ND
606	S2	NEAL S HOLLAND	Cass	ND
609	S2	WAYNE D & LUANA FREEDLAND	Cass	ND
610	S2	KEITH D & JANN L MONSON	Cass	ND
8877	S2	OAKWOOD CEMETERY	Cass	ND
969	S3	CHRISTOPHER BERGQUIST	Cass	ND
970	S3	HOFFMANN, KIM C	Cass	ND
971	S3	RICHARD O & TERRYL L SPRINGER	Cass	ND
972	S3	NEUBAUER, DALE D & CYNTHIA A	Cass	ND
973	S3	RICHARD O & TERRYL L SPRINGER	Cass	ND
974	S3	KUEHN, WILLIAM H & MARY B	Cass	ND
975	S3	BRIAN KREIE ETAL	Cass	ND
976	S3	RUSSELL G & VICKI L LARSEN	Cass	ND
977	S3	JEFFREY & AMANDA GEIGER	Cass	ND
978	S3	ALFSTAD, ANDREA D	Cass	ND
979	S3	LOCKWOOD, GENE M	Cass	ND
8633	S3	ANDREA ALFSTAD	Cass	ND
995	S4	CHERYL MS & GLEN W MEYER	Cass	ND
996	S4	BRENT & MELISSA QUERN	Cass	ND
997	S4	MARK MCALLISTER	Cass	ND
1006	S4	DENNIS T & LAURIE J SMERUD	Cass	ND
1007	S4	BRIAN W & MARY M NELSON	Cass	ND
1013	S4	TRACY A & MICHAEL H NICHOLSON	Cass	ND
1014	S4	KEITH & TIFFANY KNOKE	Cass	ND
1015	S4	GENE JR & DENISE DOELING	Cass	ND
1016	S4	MATTHEW JAMES KIRKWOOD ETAL	Cass	ND
1017	S4	JOE & CASSIE LOUWAGIE	Cass	ND
8630	S4	JOSHUA J & WENDY I BROWN	Cass	ND
8631	S4	ALBERT D & ELIZABETH HOFFART	Cass	ND
50	S5	DOUGLAS S & MARY SHERMAN TOD	Cass	ND
51	S5	WEST FARGO CITY	Cass	ND
73	S5	GILLE PROPERTIES I LLC	Cass	ND
74	S5	WADE A HANSON	Cass	ND
75	S5	FRANDSON, WALLACE J	Cass	ND
76	S5	JAMES R MOE	Cass	ND
77	S5	BIRCH TREE INVESTMENTS	Cass	ND
78	S5	LUCAS W SCHMIESING	Cass	ND
79	S5	GARY J PRIEVE	Cass	ND
80	S5	MAVIS I BARTEL	Cass	ND
82	S5	CONTROL CARD	Cass	ND
85	S5	KEVIN D & LONNA B SKOOG	Cass	ND
86	S5	LANGTON, JAN L	Cass	ND
87	S5	EDWARD S & TAMMY J HONGESS	Cass	ND
97	S5	LEBAHN, SHANE L & TAMARA L	Cass	ND
98	S5	DARIN L SLUSHER	Cass	ND
99	S5	BRIAN & DEANNA DIRKS	Cass	ND
100	S5	MARK & BONNIE SIMMONS	Cass	ND

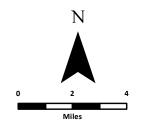
O.N	Bio-Geo	2	Property	Property
OIN or PIN	Monitoring Site	Current Owner	County	State
101	S5	BRENDA L & SCOTT A FRADET	Cass	ND
102	S5	HAERTER, DAVID W & JANE E	Cass	ND
103	S5	BRENT A OLSON ETAL	Cass	ND
104	S5	ANDERSON, PATRICIA A	Cass	ND
105	S5	COLLIN & RENEE STANGELAND	Cass	ND
106	S5	JAMES W & LISA ANN ANDERSON	Cass	ND
107	S5	MARK J & MARY H AURE	Cass	ND
108	S5	MARVIN F & JANICE M LEIDAL TOD	Cass	ND
109	S5	KATHLEEN E HANSON	Cass	ND
110	S5	JUAN JESUS & JEANNIE LOPE CAMARILLO	Cass	ND
111	S5	BOER, BRIAN C & SUSAN N	Cass	ND
112	S5	THEODORE J & LINDA D NILLES	Cass	ND ND
151	S5	HOFFMAN, RONALD D	Cass	ND ND
151	S5	CULLEN T & HEATHER R WELLS	Cass	ND ND
	S5 S5	DUANE D & TRUDY K WANNER		ND ND
153	S5 S5	E ARLENE FRANCHUK	Cass	
154			Cass	ND
155	S5	MICHAEL & SARAH DEYLE	Cass	ND
8659	S5	MICHAEL D AMUNDSON	Cass	ND
8661	S5	MICHAEL DAVID AND LORIE ANN ANDERSON	Cass	ND
8662	S5	MAURICE A & SUE CHANDL WILLOWS	Cass	ND
8663	S5	MAVIS I BARTEL	Cass	ND
8664	S5	DUANE R & MARY JANE BREITLING	Cass	ND
1153	S6	HELEN H BJORNSON REVOCABLE LIVING TRUST	Cass	ND
1161	S6	LEINO-MILLS, DAVID B & PAMELA	Cass	ND
8612	S6	DENIS M & MARY M MCCARTHY	Cass	ND
8613	S6	RICHARD D & REBECCA S HORSLEY	Cass	ND
8614	S6	DANIEL A & ERIN A HETLAND	Cass	ND
8615	S6	TODD G & JULIE M DALZELL	Cass	ND
8616	S6	LINDA L & JOSEPH M GREGG	Cass	ND
8617	S6	SCOTT M & MAMIE E ANDERSON	Cass	ND
8628	S6	GARY & LOUISE VETSCH	Cass	ND
8880	S6	DESIGNER HOMES OF FGO-MOORHEAD LLC	Cass	ND
8881	S6	RIVER'S EDGE ESTATES LLC	Cass	ND
8898	S6	HERITAGE HOMES LLC	Cass	ND
8899	S6	RIVER'S EDGE ESTATES LLC	Cass	ND
8900	S6	JUSTIN J & JAN R GERMUNDSON	Cass	ND
9084	S6	ASHLEY K JOHNSON ETAL	Cass	ND
9085	S6	ANDERSON, SCOTT M & MAMIE E	Cass	ND
9086	S6	SNELGROVE, FRANCIS J & KIM M	Cass	ND
9087	S6	VETSCH, GARY & LOUISE	Cass	ND
9089	S6	ANDERSON, SCOTT M & MAMIE E	Cass	ND
9090	S6	LANDSTROM, NEIL & STEPHANIE	Cass	ND
9091	S6	VETSCH, GARY & LOUISE	Cass	ND
9092	S6	STOKES, KIM & MARY	Cass	ND
9095	S6	SNELGROVE, FRANCIS J & KIM M	Cass	ND
204	S6B	DULLEA, MICHAEL T & JANET M	Cass	ND
205	S6B	BOUTIETTE, STEPHEN J & VICKIE L	Cass	ND
207	S6B	KLOSE, DAVID A ETAL	Cass	ND ND
207	S6B	DAVID KLOSE ETAL	Cass	ND ND
277	S6B	RODNEY M & PATRICIA A HANGGI	Cass	ND ND
293	S6B	BARRY LEE DISSETTE		ND ND
	S6B	ELVIS & LORI KADRMAS	Cass	ND ND
312				

OIN or PIN	Bio-Geo Monitoring Site	Current Owner	Property County	Property State
8649	S6B	TRACY EARL HANSON	Cass	ND
8650	S6B	KELSEY R BOSCH	Cass	ND
8651	S6B	JAMES P & RUTH REIMERS	Cass	ND
8652	S6B	TRENT D NELSON	Cass	ND
8653	S6B	ALLAN C & JUDITH C PETERSON	Cass	ND
8654	S6B	JOSHUA J & AMY R LEE	Cass	ND
1186	S7	MICKEAL & BONNIE FOSSE	Cass	ND
1189	S7	KENT T & CYNTHIA K NESS	Cass	ND
1191	S7	MICKEAL FOSSE	Cass	ND
1192	S7	JOANNE I KNUTSON	Cass	ND
1193	S7	MICKEAL FOSSE	Cass	ND
1194	S7	DANIEL G & KAROL M ZITZOW	Cass	ND
1199	S7	JON D & JULIE B LARSON	Cass	ND
1200	S7	BRUCE C THUE LIVING TRUST ETAL	Cass	ND
1201	S7	MARY K ADAMS	Cass	ND
1202	S7	DAVID T & ANNETTE R DELANEY	Cass	ND
8657	S7	KENT T & CYNTHIA K NESS	Cass	ND
8658	S7	CARI CARTER & ARTHUR WEIDNER	Cass	ND
9345	S7	HORNE FAMILY LIMITED PRTNR	Cass	ND
764	S8	NELSON, KEITH W & BONNIE V	Cass	ND
765	S8	NELSON, BRIEN B & KRISTI E	Cass	ND
766	S8	SMEBY LAND TRUST, ETAL	Cass	ND
767	S8	ODEGAARD, BRETT T & HEIDI J	Cass	ND
771	S8	SMEBY LAND TRUST, ETAL	Cass	ND
772	S8	SMEBY LAND TRUST, ETAL	Cass	ND
8637	S8	CALVIN A & LORI A FOSSE	Cass	ND
8638	S8	TERRY LYNN SMEBY	Cass	ND
8639	S8	TERRY LYNN SMEBY	Cass	ND
8640	S8	BRIEN B & KRISTI E NELSON	Cass	ND
8641	S8	THOMAS K & BONNIE L ODEGAARD	Cass	ND
8643	S8	NORMAN EVANG LUTHERAN CHURCH	Cass	ND

OIN or PIN	Bio-Geo Monitoring Site	Current Owner	Property County	Property State
247	W1	WALTER STENSON GST TRUST ETAL	Clay	MN
253	W2	JUDITH CROWELL & KATH NICHOLS	Clay	MN
257	W2	BLILIE SCOTT D & RUTH I	Clay	MN
1055	WR1	ERNST, KEITH A ETAL	Cass	ND
1056	WR1	LORI J ANDERSON	Cass	ND
1057	WR1	ERIK & BETHANY A FETNER	Cass	ND
1060	WR1	CASS COUNTY FLOOD PROPERTY	Cass	ND
1061	WR1	DELMER D HOFER REVOCABLE LIVING TRUST ETAL	Cass	ND
1062	WR1	WILLIAM NICHOL	Cass	ND
1066	WR1	CHESTER WAYNE & INGE T FETNER	Cass	ND
1069	WR1	FRED M HECTOR JR	Cass	ND
8627	WR1	SAVANNA ESTATES LLC	Cass	ND
8917	WR1	DAVID J BERNHARDT	Cass	ND
8918	WR1	BRADLEY E BERNHARDT	Cass	ND
1067	WR2	ACE A BRANDT	Cass	ND ND
1068	WR2	FRED M HECTOR JR	Cass	ND ND
1163	WR2	ACE A BRANDT	Cass	ND ND
1164	WR2	KEVIN BIFFERT	Cass	ND ND
1165	WR2	KEVIN BIFFERT	Cass	ND ND
8610	WR2	KEVIN BIFFERT	Cass	ND ND
8611	WR2	KEVIN BIFFERT	Cass	ND ND
9079	WR3			ND ND
		ELLIG, TODD L & DEE ANNE	Cass	
9083	WR3	SOLBERG LIFE ESTATE, MAYVIS M ETAL	Cass	ND
9094	WR3	BOLTON, MELVIN D ETAL	Cass	ND
9097	WR3	SAYLER, RICHARD R	Cass	ND
9198	WR3	MAYVIS M SOLBERG LIFE ESTATE ETAL	Cass	ND
9329	WR3	KNB PROPERTIES LLC	Cass	ND
814	WR4	CASS COUNTY JOINT WATER RESOURCE DI	Cass	ND
840	WR4	ORTEN B & SANDRA A BRODSHAUG	Cass	ND
845	WR4	MICHAEL DONALD BRAKKE	Cass	ND
859	WR5	IRENE F BACKLUND	Cass	ND
860	WR5	SYLVIA WISNESS STORVICK TOD	Cass	ND
861	WR5	JEROME NIPSTAD	Cass	ND
2004	WR5	CASS COUNTY FLOOD PROPERTY	Cass	ND
409	WR6	SHIPLEY, JEFFREY C AND MARIA	Richland	ND
411	WR6	AALAND, CASH H AND LAURA	Richland	ND
412	WR6	BAKKO, LARRY W	Richland	ND
413	WR6	LARRY BAKKO	Richland	ND
8589	WR6	BAKKO, LARRY W	Richland	ND
8590	WR6	AALAND, CASH H AND LAURA	Richland	ND
8591	WR6	SHIPLEY, JEFFREY C AND MARIA	Richland	ND
187	WR7	RIEGER, MARJORIE A	Richland	ND
188	WR7	HULNE, CLARENCE M&BETTY JEAN	Richland	ND
189	WR7	RIEGER, MARJORIE A	Richland	ND
8592	WR7	SMITH, SUSAN A ETAL	Richland	ND
8593	WR7	GYLLAND BROTHERS	Richland	ND
8595	WR7	COFER, COLIN K & REBECCA R	Richland	ND
8596	WR7	GAUSLOW, MARK LTD PRTNSHP	Richland	ND
8747	WR7	NELSON, THOMAS R & MICHELLE	Richland	ND
9114	WR7	NASSET, BRENT & JENNA	Richland	ND
194	WR8	AMUNDSEN, C ALLAN & GLADYS K	Richland	ND
195	WR8	JORGENSEN, THOMAS C	Richland	ND
196	WR8	GYLLAND, VANCE G	Richland	ND

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. All parcel acreages and legal descriptions shown hereon are based on County GIS data. Final acreages and legal descriptions to be determined by boundary survey. Coordinate System: NAD 1983 StatePlane North Dakota South FIPS 3302 Feet Intl | Edited by: cwickenheiser

C:\Data\Projects\GIS Projects\FM Area Diversion\Projects\Land Acquisition\Project Work Package\!Project Wide\Environmental\Biotic & Geomorph Survey\USACE_monitoring_sites.mxd



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FM AREA DIVERSION USACE BIO-GEO MONITORING SITES

Map Date: 4/20/2018



Bio-Geo Monitoring Sites

4/20/2018

	47 207 2010			
Monitoring Sites	Description/River	Parcel	Sites	Totals
		Count	+ - +	
WR	Wild Rice - ND	50	8	
S	Sheyenne - ND	137	8	
Total WR/S - ND				187
RU	Upper Rush - ND	8	2	
LR	Lower Rush - ND	2	1	
M	Maple - ND	20	4	
Total RU/LR/M - ND				30
В	Buffalo-MN	3	1	
W	Wolverton Creek-MN	3	2	
Total B/W - MN (not including Red)				6
R	Red - ND & MN	169	12	
Total Red River, ND & MN				169
Total Red River in ND				82
Total Red River in MN				87



FARGO-MOORHEAD AREA DIVERSION PROJECT

BIOTIC AND GEOMORPHIC MONITORING PROGRAM

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 landsurface 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.