Comment 1

From: Amanda Bahma
To: MN_Review, Environmental (DNR)
Subject: Fargo Moorhead diversion.
Date: Monday, May 21, 2018 2:08:40 PM

To whom it may concern:
The diversion would be a great idea. So Fargo Moorhead doesn't flood as bad. From Amanda Bahma. From Spicer Minnesota **1a**

Comment 2

From: Kevin Knoop
To: MN_Review, Environmental (DNR)
Subject: Fargo-Moorhead SEIS
Date: Monday, May 21, 2018 5:53:17 PM

To Whom This May Concern,

What about restoring some of the drained wetlands??? These water "buffers" would minimize the need for expensive diversion projects. **2a**

Thanks,

Kevin Knoop

Comment 3

From:	walleyebrooks@aol.com
To:	MN_Review, Environmental (DNR)
Subject:	FargoMorehead diversion
Date:	Monday, May 21, 2018 8:08:52 PM

??? what the hell? We spend Billions of dollars restoring wetlands. Restore them and the 100 year flood will happen every 100 years! not all the time. Go another way! Rushing water to the north where it's still frozen only moves the problem down stream! [Up Stream?] **3a**

Comment 4

From: Bob Lloyd
To: MN_Review, Environmental (DNR)
Subject: Fargo-Moorhead SEIS
Date: Tuesday, May 22, 2018 9:43:30 AM

Please don't drag this out as you seem to do with everything that needs to be done. Why do projects take forever to get approved or denied? Do you try and make us think how important you are as the main reason to drag this on and on and on... The DNR should be abolished if they cannot make decisions is a reasonable time frame. There is so little respect for your Department in all of Minnesota you should be ashamed. **4a**
thank you
bob lloyd

Comment 5

From:	MN_Review, Environmental (DNR)
To:	"Rob Sip"
Subject:	RE: FM SEIS
Date:	Thursday, May 31, 2018 2:52:00 PM
Attachments:	image005.png image006.png image007.png image001.png image002.png

Dear Robert,

Thank you for reaching out. My name is Cynthia Novak-Krebs and I am assisting Jill with the Project. Documents pertaining to the Project are located here on the DNR Environmental Review Program webpage. Please let me know if there is something else I can help with.

Kindly,
Cynthia

Cynthia Novak-Krebs
Intermediate Planner | Environmental Review

Minnesota Department of Natural Resources
500 Lafayette Road
St. Paul, MN 55155
Phone: 651-259-5115
Email: cynthia.novak-krebs@state.mn.us
mn.gov

From: Rob Sip [mailto:rob.sip@rrwmb.org]
Sent: Tuesday, May 22, 2018 3:54 PM
To: MN_Review, Environmental (DNR) <environmentalrev.dnr@state.mn.us>
Subject: FM SEIS

Jill,

Are any documents on-line? **5a**

Robert L. Sip
Executive Director
Red River Watershed Management Board

Office Address:
11 5Th Avenue East, Suite B
Ada, MN 56510

rob.sip@rrwmb.org
www.rrwmb.org
https://www.facebook.com/RedRiverWatershedManagementBoard
218-474-1084 (Cell)
218-784-9501 (Office)
218-784-9502 (Fax)

Comment 6

From: PAUL DIERKHISING
To: MN_Review, Environmental (DNR)
Subject: Re Fargo-Moorhead flood diversion project
Date: Thursday, May 24, 2018 11:26:09 AM

Why not address the real problem to the flooding? The hundreds of miles of ditches that were dug to drain wetlands for agricultural use are the the number one cause of down stream flooding. Diversions and dams are just band aids to this environmental disaster. 6a

Comment 7

From:	Pleasant Township - Nicole Bice
To:	MN_Review, Environmental (DNR)
Subject:	Fargo-Moorhead SEIS
Date:	Friday, June 01, 2018 2:44:43 PM
Attachments:	Pleasant Township Flood Plain Ordinance (2).pdf Letter to County.pdf

Attached please find a copy of Pleasant Township's Flood Plain Ordinance.
An amendment to the ordinance was passed in January of 1999. Please pay special attention to the Amendment to Pleasant Township Ordinances stated as follows:

AMENDMENT TO PLEASANT TOWNSHIP ORDINANCES

WHEREAS The Township Zoning Officials and the Pleasant Township Board of Supervisors desires to amend its flood management ordinance and to accept and comply with NDCC Chapter 61-16. 2, titled, 'Flood Plain Management' and to create a prohibition of uses in the Township which is more restrictive than the said state law:

NOW THEREFORE the Pleasant Township Flood Plain Ordinance is amended to read: No uses of land or property in the flood fringe as defined in NDCC 61— 16. 2-02 (That portion of the floodplain outside of the floodway) are allowed that will cause any increase in the elevation of the base flood of more than one inch. It shall be the duty of any person planning to construct any dikes, ditches, or other structures and uses to satisfy the township officers or their agents that the proposed use satisfies the stated standard.

The high hazard dam and FM diversion project (originally proposed or Plan B), if built, will add several feet of water on land in Pleasant Township. This would be in violation of our flood plain ordinance as well as the North Dakota Century Code stated above. As you can see, a permit or variance would be needed from Pleasant Township for this project. As of today's date, no permit application or variance request has been submitted to Pleasant Township to consider.

I have also included a letter that was sent to the Cass County Engineer on June 7, 2000 making them aware of our ordinance and the necessity for a variance or permit should any project be done by them that would increase our flood plain more than one inch.

Permitting and building of the dam would have a disastrous effect on the citizens of Pleasant Township. This is why the supervisors amended the flood ordinance in 1999, to protect its residents.

Pleasant Township would ask that you review and recognize our ordinance and take

it into consideration in your review of this project.

Thank you,

Nicole Bice
Clerk, Pleasant Township
701.799.5557 (cell)

State of North Dakota
Office of the State Engineer

900 EAST BOULEVARD AVE. • BISMARCK, ND 58505-0850
701-328-2750 • FAX 701-328-3696 • http://swc.nd.gov

May 13, 2014

Ms. MaryJane Nipstad
Clerk – Pleasant Township
5245 172nd Ave SE
Hickson, ND 58047

Dear Ms. Nipstad,

This letter is in response to your May 6, 2014, email regarding the permits required for the proposed Oxbow-Bakke-Hickson Ring Dike Project.

One of the attachments to your email is a letter to the Office of the State Engineer informing us of the need for the project sponsor to obtain a Floodplain Development Permit from Pleasant Township before construction of the ring dike can begin. Though I was already aware of the need for such a permit, I am pleased to see that you sent a similar notice to the project sponsor as they are the entity required to obtain all necessary permits for the project. It should be noted that all State Engineer-issued permits include conditions informing the applicants that it is their responsibility to obtain any other permits that may be needed to construct their project.

Though North Dakota Century Code 61-16.2-14 requires the State Engineer to review any proposed projects that are built within a regulatory floodway, according to the plan drawings received by this office the Oxbow-Hickson-Bakke ring dike will not be located in a regulatory floodway, but only in a portion of the 1 percent-chance floodplain. Therefore, no review is required from this office.

Thank you for the concerns expressed in your email, and if you have any further questions, please do not hesitate to contact Bruce Engelhardt of this office at 701-328-4958.

Sincerely,

Todd Sando, P.E.
State Engineer

TS:JP:ph/1928
cc: FM Diversion Authority
Governor's Office
City of Fargo
Cass County Commission
Cass County Joint Water Resource Board

Pleasant Township, Board of Supervisors

♦♦♦

June 7, 2000

Mr. Keith Berndt
Cass County Engineer

West Fargo, ND 58078

Dear Mr. Berndt,

In January 1999 the Pleasant Township Board of Supervisors amended our floodplain management ordinance to be more restrictive than the previous standards set by the State of North Dakota and adopted by Pleasant Township. Previous law allowed for up to a one foot increase in flood elevation within the township. We have since revised this standard to one inch. After assessing the disastrous effects the 1997 flood had on our community, we realized the citizens of Pleasant Township could not tolerate any additional floodwaters. This revised ordinance allows us to better manage any proposed floodplain increase.

We understand that from time to time Cass County may have road or other projects that may conflict with our new ordinance. It is our intention to work with Cass County and allow a variance whenever possible, however, there are critical areas in Pleasant Township that we can not allow elevation increases. One area is a stretch of county road 16 running west of I-29 to the St. Benedict corner. This area lies north of section 2 in Pleasant Township. Another area is a stretch of county road 81 running north and south, west of section 1, in Pleasant Township, located by the Lower Wild Rice & Red River Cemetery.

Last fall, the North Dakota State Highway Department contacted Pleasant Township regarding resurfacing the northbound lane of I-29. They knew we had revised our floodplain ordinance to allow a maximum of one inch and wanted to comply with our new regulation. This part of I-29 runs through sections 2, 11, 14, 23, 26 & 35 of Pleasant Township. It is critical that a portion of the interstate highway not be raised due to the negative floodplain impact for Pleasant Township. The North Dakota State Agency agreed and the final elevation of the northbound lane will be no higher than the present elevation of the southbound lane. We trust we'll have the same cooperation from Cass County.

Should you have any road or other projects in Pleasant Township that have the potential to increase our floodplain more than one inch, please contact us. If a variance from Pleasant Township is necessary for your project, we will certainly consider your request, so long as the safety of our citizens is not compromised. Thank you for your cooperation in this matter.

Sincerely,

Pleasant Township, Board of Supervisors

Pleasant Twp

MODEL "C" WITH BASEMENT EXCEPTION

SECTION 1.0

1.1 STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE AND OBJECTIVES

STATUTORY AUTHORIZATION

The Legislature of the State of North Dakota has in North Dakota Century Code, Chapters 40-47, 11-33 and 58-03, delegated responsibility to local governmental units to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the Board of Supervisors (governing body) of Pleasant Township (local unit), North Dakota does ordain as follows:

1.2 FINDINGS OF FACT

(1) The flood hazard areas of Pleasant Township (local unit) are subject to periodic inundation which can endanger life, result in loss of property, create health and safety hazards, disrupt commerce and governmental services, cause extraordinary public expenditures for flood protection and relief, and impair the tax base, all of which adversely affect the public health, safety and general welfare.

(2) Flood losses caused by the cumulative effect of obstructions in the special flood hazard areas cause increases in flood heights and velocities. Inadequately floodproofed, elevated or otherwise unprotected structures also contribute to the flood loss.

1.3 STATEMENT OF PURPOSE

It is the purpose of this ordinance to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

(1) To protect human life and health;

(2) To minimize expenditure of public money for costly flood control projects;

(3) To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

(4) To minimize prolonged business interruptions;

(5) To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;

(6) To help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas;

(7) To ensure that potential buyers are notified that property is in an area of special flood hazard; and

(8) To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

1.4 METHODS OF REDUCING FLOOD LOSSES

In order to accomplish its purposes, this ordinance includes methods and provisions for:

(1) Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;

(2) Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;

(3) Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;

(4) Controlling filling, grading, dredging, and other development which may increase flood damage; and

(5) Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

SECTION 2.0
DEFINITIONS

Unless specifically defined below, words or phrases used in this ordinance shall be interpreted so as to give them the meaning they have in common usage and to give this ordinance its most reasonable application.

"Appeal" means a request for a review of the Terry (local administrator) Compson's interpretation of any provision of this ordinance or a request for a variance.

"Area of special flood hazard" means the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year.

"Base flood" means the flood having a one percent chance of being equalled or exceeded in any given year.

"Development" means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations located within the area of special flood hazard.

"Flood" or "flooding" means a general and temporary condition of partial or complete inundation of normally dry land areas from:

(1) The overflow of inland or tidal waters and/or;

(2) The unusual and rapid accumulation or runoff of surface waters from any source.

"Flood Insurance Rate Map" (FIRM) means the official map on which the Federal Emergency Management Agency has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

"Flood Insurance Study" means the official report provided by the Federal Emergency Management Agency that includes flood profiles, the Flood Insurance Rate Map, and the water surface elevation of the base flood.

"Lowest floor" means the lowest floor of a structure including basement.

"Manufactured home" means a structure that is transportable in one or more sections, built on a permanent chassis, and designed to be used with or without a permanent foundation when connected to the required utilities. It includes recreational vehicles or travel trailers placed on a site for 180 consecutive days or more.

"Manufactured home park or subdivision" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

"New construction" means structures for which the "start of construction" commenced on or after the effective date of this ordinance.

"Start of construction" includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement, or other improvement was within 180 days of the permit date. The actual start means the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the

installation of piles, the construction of columns, or any work beyond the stage of excavation or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure.

"Structure" means a walled and roofed building or manufactured home that is principally above ground.

"Substantial improvement" means any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure either:

(1) before the improvement or repair is started, or

(2) if the structure has been damaged and is being restored, before the damage occurred. For the purpose of this definition "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.

The term does not however, include either:

(1) any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions; or

(2) any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.

Variance" means a grant of relief from the requirements of this ordinance which permits construction in a manner that would otherwise be prohibited by this ordinance.

SECTION 3.0
GENERAL PROVISIONS

3.1 LANDS TO WHICH THIS ORDINANCE APPLIES

This ordinance shall apply to all areas of special flood hazards within the jurisdiction of PleasantTownship (local unit).

3.2 BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD

The areas of special flood hazard identified by the Federal Emergency Management Agency in a scientific and engineering report entitled "The Flood Insurance Study for the Pleasant Township (local unit), dated February 3, 1982" with an accompanying Flood Insurance Rate Map and all subsequent revisions thereto is hereby adopted by reference and declared to be a part of this ordinance. The Flood Insurance Study is on file at Terry Compson, RR #1, Horace, N.D. (address)

3.3 COMPLIANCE

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this ordinance and other applicable regulations.

3.4 GREATER RESTRICTIONS

This ordinance is not intended to repeal, remedy, or impair any existing easements, covenants, or deed restrictions. However, where this ordinance and another ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

3.5 INTERPRETATION

In the interpretation and application of this ordinance, all provisions shall be:

(1) Considered as minimum requirements;

(2) Liberally construed in favor of the governing body; and

(3) Deemed neither to limit nor repeal any other powers granted under state statutes.

3.6 WARNING AND DISCLAIMER OR LIABILITY

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This ordinance does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of Pleasant Township (local unit), any officer or employee thereof, or the Federal Emergency Management Agency, for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.

SECTION 4.0
ADMINISTRATION

4.1 ESTABLISHMENT OF DEVELOPMENT PERMIT

A development permit shall be obtained before construction or development begins within any area of special flood hazard established in Section 3.2. Application for a development permit shall be made on forms furnished by the Terry Compson (local administrator) and may include, but not be limited to: plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage materials, drainage facilities; and the location of the foregoing. Specifically, the following information is required:

(1) Elevation in relation to mean sea level, of the lowest floor of all structures;

(2) Elevation in relation to mean sea level to which any structure has been floodproofed;

(3) Certification by a registered professional engineer or architect that the floodproofing methods for any non-residential structure meet the floodproofing criteria in Section 5.2-2; and

(4) Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

4.2 DESIGNATION OF THE Terry Compson (local administrator)

The Terry Compson (local administrator) is hereby appointed to administer and implement this ordinance by granting or denying development permit applications in accordance with its provisions.

4.3 DUTIES AND RESPONSIBILITIES OF THE Zoning Administrator (local administrator)

Duties of the Zoning Administrator (local administrator) shall include, but not be limited to:

4.3-1 Permit Review

(1) Review all development permits to determine that the permit requirements of this ordinance have been satisfied.

(2) Review all development permits to determine that all necessary permits have been obtained from those federal, state, or local governmental agencies from which prior approval is required.

(3) Review all development permits to determine if the proposed development adversely affects the flood-carrying capacity of the area of special flood hazard. For purposes of this ordinance, "adversely affects" means that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one ~~foot~~ inch at any point.

4.3-2 Use of Other Base Flood Data

When base flood elevation data has not been provided in accordance with Section 3.2, BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD, the Zoning Administator (local administrator) shall obtain, review, and reasonably utilize any base flood elevation data and floodway data available from a federal, state, or other source, as criteria for requiring that new construction, substantial improvements, or other development in the floodplain are administered in accordance with Section 5.2, SPECIFIC STANDARDS.

4.3-3 Information to be Obtained and Maintained

(1) Obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.

(2) For all new or substantially improved floodproofed structures:

(i) obtain and record the actual elevation (in relation to mean sea level) to which the structure has been floodproofed;

(ii) maintain the floodproofing certifications required in Section 4.1(3).

(3) Maintain for public inspection all records pertaining to the provisions of this ordinance.

4.3-4 Alteration of Watercourses

(1) Notify adjacent communities and the North Dakota State Engineer prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.

(2) Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.

4.3-5 Interpretation of Flood Insurance Rate Map (FIRM) Boundaries

Make interpretation where needed, as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section 4.4.

4.4 VARIANCE PROCEDURE

4.4-1 Appeal Board

(1) The Board of Supervisors (appeal board) as established by Pleasant Township (local unit) shall hear and decide appeals and requests for variances from the requirements of this ordinance.

(2) The Board of Supervisors (appeal board) shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the _____ (local administrator) in the enforcement or administration of this ordinance.

(3) Those aggrieved by the decision of the Board of Supervisors (appeal board) or any taxpayer, may appeal such decision to the District Court (name of appropriate court), as provided in NDCC 27-05-06 (statute).

(4) In passing upon such applications, the Board of Supervisors (appeal board) shall consider all technical evaluations, all relevant factors, standards specified in other sections of this ordinance and:

(i) the danger that materials may be swept onto other lands to the injury of others;

(ii) the danger to life and property due to flooding or erosion damage;

(iii) the susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

(iv) the importance of the services provided by the proposed facility to the community;

(v) the necessity to the facility of a waterfront location, where applicable;

(vi) the availability of alternative locations, for the proposed use which are not subject to flooding or erosion damage;

(vii) the compatibility of the proposed use with existing and anticipated development;

(viii) the relationship of the proposed use to the comprehensive plan and floodplain management program for that area;

(ix) the safety of access to the property in times of flood for ordinary and emergency vehicles;

(x) the expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site; and

(xi) the costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.

(5) Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre to less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing items (i-xi) in Section 4.4-1 (4) have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases.

(6) Upon consideration of the factors of Section 4.4-1(4) and the purposes of this ordinance, the Board of Supervisors (appeal board) may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance.

(7) The Zoning Administrator (local administrator) shall maintain the records of all appeal actions and report any variances to the Federal Emergency Management Agency upon request.

4.4-2 Conditions for Variances

(1) Variances may be issued for the reconstruction, rehabilitation, or restoration of structures listed on the

National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this section;

(2) Variances shall not be issued within the identified floodplain if any increase in flood levels during the base flood discharge would result.

(3) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief;

(4) Variances shall only be issued upon:

(i) a showing of good and sufficient cause;

(ii) a determination that failure to grant the variance would result in exceptional hardship to the applicant; and

(iii) a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, cause fraud on or victimization of the public as identified in Section 4.1-4(4), or conflict with existing local laws or ordinances.

(5) Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

SECTION 5.0
PROVISIONS FOR FLOOD HAZARD REDUCTION

5.1 GENERAL STANDARDS

In all areas of special flood hazards the following standards are required:

5.1-1 Anchoring

(1) All new construction and substantial improvements, including additions, shall be anchored to prevent flotation, collapse or lateral movement of the structure.

(2) All manufactured homes must be elevated and anchored to resist flotation, collapse or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable State and local anchoring requirements for resisting wind forces.

5.1-2 Construction Materials and Methods

(1) All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.

(2) All new construction and substantial improvements shall be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment, and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

5.1-3 Utilities

(1) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;

(2) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters; and

(3) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

5.1-4 Subdivision Proposals

(1) All subdivision proposals shall be consistent with the need to minimize flood damage;

(2) All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage;

(3) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and

(4) Base flood elevation data shall be provided for subdivision proposals and other proposed development which contain at least 50 lots or 5 acres (whichever is less).

5.1-5 Encroachments

The cumulative effect of any proposed development, when combined with all other existing and anticipated development, shall not increase the water surface elevation of the base flood more than one-foot at any point.

5.2 SPECIFIC STANDARDS

In all areas of special flood hazards where base flood elevation data have been provided as set forth in Section 3.2 BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD or Section 4.3-2, Use of Other Base Flood Data, the following provisions are required:

5.2-1 Residential Construction

(1) New Construction and substantial improvement of any residential structure shall:

(a) conform to structural and technical provisions set forth in FEMA regulations approved by
(Title of Floodproofing Code)
the Federal Emergency Management Agency and adopted by
Pleasant Township.
(Name of Community)

(b) be designed so that the first floor is at least ~~one foot~~ 2 1/2 feet above the base flood level. Any basement area, together with attendant utilities and sanitary facilities, below that level shall be designed so that the structure is watertight without human intervention (i.e., the base or sill of all external openings such as windows and doors must be ~~one foot~~ 2 1/2 feet above the 100-year base flood elevation). Basement walls shall be built with the capability to resist hydrostatic and hydrodynamic loads and the effects of buoyancy resulting from the 100-year frequency flood and shall be designed so that minimal structural damage will occur if this design is exceeded.

(c) basements constructed in accordance with these regulations shall not be used for sleeping purposes.

(d) be certified by a registered professional engineer that the floodproofing measures used in the structure satisfy the floodproofing standards.

(e) The Zoning Administrator shall certify that the
(Local Administrator)
structure has been built in accordance with the floodproofing code approved by the Federal Emergency Management Agency.

5.2-2 Nonresidential Construction

(1) construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated to the level of the base flood elevation; or together with attendant utility and sanitary facilities shall:

(1) be floodproofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water;

(2) have structural components capable of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy. Fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

(a) a minimum of two openings having a total net area of not less than one square foot of enclosed area subject to flooding shall be provided;

(b) the bottom of all openings shall be no higher than one foot above grade;

(c) openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters; and

(3) be certified by a registered, professional engineer or architect that the standards of this subsection are satisfied. Such certifications shall be provided to the official as set forth in Section 4.3-3(2).

(4) Require within any AO and AH Zone on the FIRM that all new construction and substantial improvements of nonresidential structures (i) have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the FIRM (at least two feet if no depth number is specified, or (ii) together with attendant utility and sanitary facilities be completely floodproofed to that level to meet the floodproofing standard specified in 5.2-2(1).

(5) Require within Zones AO and AH adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures.

5.2-3 Manufactured Homes

(1) Manufactured homes shall be anchored in accordance with Section 5.1-1(2).

(2) All manufactured homes or those to be substantially improved shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is at or above the base flood elevation and is securely anchored to an adequately anchored foundation system.

SECTION 6.0

6.1 PENALTIES FOR VIOLATIONS

(1) Violation of the provisions of this ordinance or failure to comply with any of its requirements, including violations on conditions and safeguards established in connection with grants or variances or conditional uses, shall constitute a misdemeanor. Any person who violates this ordinance or fails to comply with any of its requirements shall upon conviction thereof be punished by a fine not exceeding $500 or by imprisonment not to exceed 30 days or by both such fine and imprisonment for each such offense, and in addition shall pay costs and expenses involved in the case. Each day such violation continues shall be considered a separate offense.

(2) Nothing herein contained shall prevent the Board of Supervisors from taking such other lawful action as is necessary to prevent or remedy any violation.

PASSED THIS 17th of March, 1987.

APPROVED:

Jerome Lipsted
CHIEF EXECUTIVE OFFICER

ATTEST: Marshall Tango

(Auditor or Clerk)

Post 7
4.3-1(1)(3)

AMENDMENT TO PLEASANT TOWNSHIP ORDINANCES

WHEREAS, The Township Zoning Officials and the Pleasant Township Board of Supervisors desires to amend its flood management ordinance and to accept and comply with NDCC Chapter 61-16.2, titled, "Flood Plain Management", and to create a prohibition of uses in the Township which is more restrictive than the said state law:

NOW THEREFORE, the Pleasant Township Flood Plain Ordinance is amended to read: No uses of land or property in the flood fringe as defined in NDCC 61-16.2-02 (That portion of the floodplain outside of the floodway) are allowed that will cause any increase in the elevation of the base flood of more than one inch. It shall be the duty of any person planning to construct any dikes, ditches, or other structures and uses to satisfy the township officers or their agents that the proposed use satisfies the stated standard.

Supervisor Jerome Thyslin introduced the following resolution and moved its adoption:

RESOLUTION TO ADOPT CRITERIA FOR
FLOODPLAIN ELEVATION POLICY

WHEREAS, the Pleasant Township Board of Supervisors deems it proper and necessary to adopt a floodplain elevation policy;

NOW THEREFORE, BE IT RESOLVED AS FOLLOWS:

That the Board of Supervisors for Pleasant Township adopt and enforce the foregoing attached written policy for criteria for floodplain elevation for Pleasant Township's Floodplain Ordinance.

APPROVED:

George J Richard
Supervisor Chairman

ATTEST:

Ray A Nolan
Clerk

The motion for the adoption of the foregoing resolution was duly seconded by Member Doug Christianson. On roll call vote, the following members voted aye: All Present.
The following members voted nay: —. The following members were absent and not voting: —. The majority having voted aye, the motion carried and the resolution was duly adopted.

CRITERIA FOR FLOODPLAIN ELEVATION POLICY

STRUCTURES: Elevating structures such as residential houses, outbuildings, garages & other buildings to comply with Pleasant Township's floodplain elevation restrictions (Less than one inch) causes such a minute rise in the flood level that the Pleasant Township Board of Supervisors will accept the Zoning Administrator's approval of the Building Permit as satisfaction that the project is in compliance with the stated floodplain standard. Should someone request a Building Permit for an usually large structure to be build and it is apparent to the Zoning Administrator that exceptionally large amounts of fill will be used in the floodplain, that Permit must be approved by the Pleasant Township Board of Supervisors prior to issuance of the Permit.

DITCHES: Any person(s) planning to construct any ditches other than ditches constructed by farmers for farmland drainage must be approved by the Pleasant Township Board of Supervisors to insure the stated floodplain standards are meet. Such examples of ditches that require Township approval would be ditches where the elevation on either side of the ditch is raised, rechanneling or connecting larger county drains or channeling water from one river to another.

DIKES & OTHER STRUCTURES: Any person(s) planning to construct any dikes and other structures must be approved by the Pleasant Township Board of Supervisors to insure the stated floodplain standards are meet. Other structure would include projects raising any roadway within the Township.

It shall be the duty of any person planning any project to pay the costs necessary to satisfy the township officers or their agents that the proposed use satisfies the stated standard.

Supervisor Jerome Nipstad introduced the following resolution and moved its adoption:

RESOLUTION TO AMEND THE PLEASANT TOWNSHIP FLOOD PLAIN ORDIANCE

WHEREAS, the Township Zoning Officials and the Pleasant Township Board of Supervisors desires to amend its flood management ordinance and to accept and comply with NDCC Chapter 61-16.2, titled "Flood Plain Management", and to create a prohibition of uses in the township which is more restrictive than the state law;

NOW THERFORE, the Pleasant Township Flood Plain Ordinance, Section 5.2-1(1)(b) to be amended to read as follows:

> be designed so that the first floor is at least two and one half (2 1/2) feet above the base flood level. Any basement area, together with attendant utilities and sanitary facilities, below that level shall be designed so that the structure is watertight without human intervention (i.e., the base or sill of all external openings such as windows and doors must be two and one half (2 1/2) feet above the 100-year base flood elevation). Basement walls shall be built with the capability to resist hydrostatic and hydrodynamic loads and the effects of buoyancy resulting from the 100-year frequency flood shall be designed so that minimal structural damage will occur if this design is exceeded.

APPROVED:

George Richard
Supervisor Chairman

ATTEST:

Clerk

The motion for the adoption of the foregoing resolution was duly seconded by Supervisor Douglas Christenson. On roll call vote, the following members voted aye: George Richard - Douglas Christenson
The following members voted nay: —. The following members were absent and not voting: Jerome Nipstad
The majority having voted aye, the motion carried and the resolution was duly adopted.

Comment 8

Dear Jill Townley

My name is Larry Ness. I live in Sec 31 Holy Cross Clay County. I am very much against plan B by the Diversion Authority. I have never had any Flood problems and I don't think anyone else in the area has had any Flood Problems. I think their are other plans that would not cause as much problems as plan B. I understand that Charlie Anderson has a plan that would protect Fargo From Floods, that wouldn't cause as many Problems as plan B. If they put a dike along Hwy 75. I own land in section 32 that would have a dike. If they put a dike along Hwy 75 it would Flood my farm land in Sec 32 + 31. this dike would also Flood my farm place, which has never had a Flood problem. Please dont give them a permit for plan B.

8a 8b 8c 8d

Yours Truly

Larry Ness.

Comment 9

6/2/2018

To: Joy Townley, SEIS Project Manager

Re: SEIS preparation notice

Dear Ms. Townley,

Thank you for sending the information about "Plan B". Although marginally better than Plan A, it is still totally unacceptable and should not receive a permit from the DNR. I appreciate the DNR's work and willingness to accept input from Minnesotans affected by this project, but the proposed compromise is wholly inadequate and violates the DNR's responsibility to follow Minnesota law regarding safeguarding our environment and people from degradation for the purpose of economic gain. (to people in another state, no less). I have the following comments: **9 a**

1. Despite all the hydrology, elevations, flow rates, tie backs, etc mentioned; this is still the same project the DNR turned down before. It involves a high hazard class 1 dam. It still floods out a number of people in Minnesota with no mention of how they are to be compensated for their losses, and it still damages the Red River and it's forests, fish, and wildlife. The people in Minnesota, of whom I am one, get the higher risk of the dam, and otherwise get to bear a loss: economic loss, loss of homes, farms, friends and family, community, and the environment along the river (which, make no mistake, will be damaged for many many miles south of the the staging area). **9 b** **9 c**

2. I notice from the map, that the current natural flood plain south of Fargo will still be fully protected in "Plan B" (as in Plan A), so as to insure that Fargo's economic development and expansion can continue into the flood plain, ensuring profit for their smart money developers, construction companies, and realtors. I also note that taking the Wolverton Creek flooding and Comstock ring dike out of the plan helps to quiet some of the more vocal Minnesota critics of the project. Otherwise, no one in Minnesota is any better off under Plan B. There continues to be no significant benefit to people in Minnesota from this whole project **9 d**

3. It seems to me that whenever the DNR engages with the FM Diversion Authority and the USACE it is always on the latter's terms and the DNR seems to get sucked in and the discussion quickly turns to numbers, flow rates, and other calculations. The DNR, on the other hand, is supposed to be about the environment and the people of our state, and the people's ability to enjoy that environment. Please don't get sucked in. The DNR should be clear that they will never approve a dam for this project. Winnipeg, Grand Forks, and Breckenridge didn't need a dam to solve the problem. The dam is for economic development in Fargo (not Moorhead). Please protect the Red River, and the people who live on it. There's a big difference between Minnesota and North Dakota in how the environment is valued, and I encourage the DNR to stay true to Minnesota values.

4. I've attached a copy of comments sent on the original EIS. I hope you might look at it again. 9 e

Thanks so much for your time and consideration. The Red River is a great and unappreciated resource. I pray you will protect it from degradation for economic gain (even though I would bet the DNR is under a lot of pressure over this project). I know you will do what is right.

Sincerely,

David A. Ness

10/22/2015

Comments: Minnesota DNR draft EIS Fargo-Moorhead flood management project

To: Minnesota DNR

Thank you for allowing public comment regarding this document. Also, thank you for resisting pressure and for ensuring there is public discussion and input on issues such as this project. I am writing as a citizen who will be directly affected if the project is approved and I hope you will take my concerns seriously. First , let me explain who I am, and then I will briefly organize the comments I have.

I am the owner of a small farm located on the Minnesota bank of the Red River between Comstock and Wolverton, about 18 miles south of Moorhead. I am the 4th generation here. My great-grandparents bought a cabin at Fort Abercrombie after it closed in the late 1870's and disassembled it and floated it down the river to their land, where they reassembled it and lived and raised 10 kids until they could build a big house in 1902. My grandfather built his place 1/2 mile away in 1919 . He remembered Indians riding along the river as a boy, and described the Red as a clear running gravel bottom river until the 1930's. Later, I came to own his farm. It consists now mostly of woods along the river for about 2 miles. My great grandparents and grandparents lived their whole lives along this river, and I have numerous relatives along the Minnesota side. My great-grandfather's brother started Concordia College in Moorhead. I grew up in south Moorhead a block and a half from the river and was down there almost every day as a kid. My paper route was on Rivershore Drive (now torn down for flood control and replaced with a dike). I graduated from Moorhead High and from Concordia College with a degree in biology. One summer I worked collecting and doing the microbiology testing on water samples from various USACE controlled sites in the area from Lake Traverse to Fergus Falls to Moorhead as part of a study for USACE. My point in all this is to tell you that I am very familiar with the Red River both in town and out in the area which will be "newly inundated". I am also familiar with both communities of people. Therefore, I hope you will give my comments some credence. Fargo- Moorhead, the farm, and the river have each always been a big part of my life. I love the river and both communities.

General Criticism of DNR draft EIS:

This exhaustive document appears to be quite comprehensive, but in fact has numerous areas where it lacks detail and information about how various conclusions were arrived at, especially where judgments were made as to appropriateness of alternatives based on workability, engineering, cost data, etc. The reader is left to "trust us". It also lacks serious analysis of potential unanticipated adverse effects. The DNR states it was working closely with the USACE and the Diversion Authority throughout development of this document, and in many cases accepted their earlier work and incorporated their data rather than develop it independently on their own, and it shows. This, in my view, causes some problems, as both the USACE and the Diversion Authority are interested parties and are not just interested in flood control. They are interested in flood control that maximizes economic development for Fargo. Furthermore, neither group carries any substantial credibility in the area of environmental concern, and this bias not surprisingly shows through in the DNR's report. Being a Minnesota citizen, I would have expected much greater environmental scrutiny from the Minnesota DNR over this project, and a much closer look at alternatives, as well as a recognition that the best solution for the Fargo flooding problem may not have even been discovered yet. Fargo and the USACE have long been certain their plan is the only best one, that they are the "big town", and that they should get what they want. DNR has been cautious about a class one dam on a major river system. To their credit, DNR has at least considered some of the downside of this project in their report, but they could have said a lot more about why that is prudent. An ideal plan would control flooding without the environmental risk and social cost of the USACE plan, and has been achieved by other cities along this river without a dam.

Specific Comments re: Environmental Data

1. The DNR shows the federal/USACE environmental reports rating all the rivers in this project to be of only fair to poor quality, using a QHEI survey instrument. Thus, by inference, they imply these streams are not really worthy of a serious analysis as to how this habitat will be degraded by the project. This QHEI grading does not fairly describe these rivers, particularly the Red, which as the DNR knows and states in it's report is a "world class" fishing river, and home to 50 kinds of fish, and a wonderful population of wild creatures including things like snowy owls and otters and oysters. One then wonders how a "fair to poor" stream does this. The QHEI is meant to be used in the context of the region the waterway is in. While the Red is a prairie river and thus will never be like the Crow Wing, it never-the-less is a very healthy river outside of the urban area. The DNR's stream biologists all know this and the DNR should have pointed this out in it's report. It is not a resource that should be lightly regarded.

2. DNR EIS goes on to correctly note there are Significant Potential Adverse Effects from this project to riverbank structure, flood plain woods, fish, invertebrates, birds, wetlands, wildlife, cultural resources, and socioeconomics. The individual discussions and proposed mitigations are invariably weak, dismissive, and short on detail. The overriding feeling one gets is that "we don't really expect anything too serious", even though as noted above, just about everything in this ecosystem is going to be adversely affected. The report needs to at least look at the worst case possibilities and list them, and discuss what happens if they start to snowball.

3. My greatest specific concern involves the Flood Plain Woods and transitional forest. Again, the federal/USACE

report only lists 62 acres of woods at risk.(probably right where the dam will be built.) The reality is that the woods from the dam half way back to Breckenridge could be badly damaged by higher, deeper, or more prolonged flooding. These are lovely old woods: ash and basswood close to the river, and oaks further back. The oaks particularly are at risk with deep or prolonged flooding. In a worst case scenario where the diversion needed to be run for several weeks, or multiple times, or in warm weather, the entire flood plain forest could be wiped out, and all the creatures it shelters as well , driven out in a stressed condition onto the prairie. Over the course of the lifespan of this dam, it is almost inevitable that at some point such a scenario will arise. This should be considered by the DNR in this report. Evidence should be sought, if any exists, from other projects of this scale where the USACE has successfully implemented this kind of project to see what the upstream effects were on the Flood Plain Forest.

4. The human environment in the "unbenefited" area is also correctly identified by the DNR in this report as an area that will suffer significant damage. This will be cultural, economic, and social, as people are dispersed from the area they've lived in their whole lives, extended family ties are lost, school districts and churches are eliminated or altered, tax bases are destroyed, farming on thousands of acres of the best farmland in the country is disrupted, other businesses go under, and communities are expected to live behind ring dikes The DNR also incorrectly surmises that people will move in to these ring diked villages. Many of those that I know that are uprooted will leave for a different state or location where this cannot happen again, and a check from the government will not particularly make them feel better about it. In my own case, I doubt I can find this kind of farmland along a river full of fish with 2 miles of beautiful woods that my great grandfather used to own 20 minutes from town and surrounded by friends and family for what the government would pay for it. That combination is not really replaceable. Many others are in the same situation. The DNR could certainly recognize this dilemma, and it's unique character better in it's report. These impacts are serious, and there's hundreds of Minnesota citizens who will be be so treated. There are also likely to be impacts continuing upstream far out of the project area that go unmentioned. It is interesting that there is supposed to be protection for premier farmland from such projects, but it is simply bypassed by USACE because over 90% of the farmland in this area is premiere farmland. Disingenuous?

Other recommendations for the DNR before deciding to consider permitting this dam

1. Please consider the best interests of all the taxpayers in Minnesota who would have to pay the bill for part of this project with little benefit and significant environmental loss. They are unbenefitted.

2. Consider that other major cities (including Moorhead) have solved their flooding issues without dams. Fargo likely could as well with dikes and/or a diversion alone and in town mitigation.

3. Please consider that at least some of the pressure from the Fargo Diversion Authority comes as much for political and economic development reasons as for flood control. Fargo seems to care little for the river. It's a nuisance to them. Condos and strip malls in the flood plain generate $. This project will give them flood control and lots of new ground to develop, and it will be paid for by others, with little or no suffering by anyone in town. OF COURSE THEY WANT THIS PROJECT!

4. A solution to Fargo's flooding problem that actually enhanced the Red River and the wild area it supports would be the best of all solutions for everyone, and if the will existed could be done!

No state action significantly affecting the quality of the environment shall be allowed, nor shall any permit for natural resources management and development be granted, where such action or permit has caused or is likely to cause pollution, impairment, or destruction of the air, water, land or other natural resources located within the state, so long as there is a feasible and prudent alternative consistent with the reasonable requirements of the public health, safety, and welfare and the state's paramount concern for the protection of its air, water, land and other natural resources from pollution, impairment, or destruction. Economic considerations alone shall not justify such conduct."

Lastly, please talk to your DNR river biologists who have been down on this river. It is really pretty wonderful in its own unique way. Thanks.

Dave Ness

Comment 10

From: Zentgraf, Monica
To: MN_Review, Environmental (DNR)
Subject: Fargo-Moorhead FloodRisk Management Project SEIS
Date: Tuesday, June 05, 2018 2:15:31 PM
Attachments: F-M Flood Risk Mgmt SEIS.pdf

To whom it may concern,

On behalf of the Richland County Water Resource District, 418 2nd Avenue North, Wahpeton, ND 58075,attached please find comments regarding the Fargo-Moorhead Flood Risk Management Project SEIS. Thank you for your review and consideration of the District's comments.

Monica Zentgraf
Richland County Water Resource District
418 2nd Avenue North
Wahpeton, ND 58075
mzentgraf@co.richland.nd.us
701-642-7773

RICHLAND COUNTY
WATER RESOURCE DISTRICT

SECRETARY /TREASURER:
Monica Zentgraf
(701)642-7773 (Phone)
(701)642-6332 (Fax)
mzentgraf@co.richland.nd.us (E-mail)

CIVIL TECHNICIAN:
Justin Johnson
(701)642-7835 (Phone)
justinj@co.richland.nd.us (E-mail)

June 5, 2018

Ms. Jill Townley
Project Manager
Ecological and Water Resources Division, DNR
Box 25
500 Lafayette Road
St. Paul, MN 55155-4025

RE: Supplement to Environmental Impact Statement
Fargo-Moorhead Flood Risk Management Project
Comment Letter – Richland County Water Resource Board

Dear Ms. Townley:

The Richland County Water Resource Board is on record as opposing the Fargo-Moorhead Flood Diversion Project as previously planned. We do not oppose flood protection for Fargo-Moorhead but the plan as it existed due to the negative impacts that it has on our County.

We believe the concessions made for the "Plan B" permit submittal to the MNDNR as part of the Joint Governor's Task Force is a good start to minimize the devastating upstream impacts that would have existed with the original plan. The following are the items in the 16 scoping areas that the MNDNR will evaluate as part of the SEIS that the Richland County Water Resource Board has concerns with:

i. Hydrology and Hydraulics – Using the full period of record on the Red River is something the upstream areas have long advocated for. That said, we note the current Plan B design staging area still impacts northern areas of Richland County. As these models are evaluated we request the MNDNR consider a more equitable distribution of the impacts between upstream and downstream areas. **10 a**

viii. Infrastructure – The staging area impacts to roads and bridges are a concern in northern Richland County. Even more relevant to the Water Resource Board are the impacts to the drainage facilities we own and operate. The legal drains have a direct and negative impact by the operation of the staging area. Not only does the water that backs up into these facilities impair their function, it also prolongs the inundation of these facilities which increases maintenance costs. **10 b** **10 c**

xi. Socioeconomic - Three cemeteries are still impacted by Plan B. Richland County Water Resource Board opposes the impacts to these sites.

These three areas are the ones that we emphasis and hope the MNDNR will study extensively as they consider granting a permit for this project after completion of the Supplemental Environmental Impact Study. While we believe the Plan B changes are a good start, the impacts to Richland County are still present and concerning. As stated at the outset of this letter, we do not oppose flood protection for Fargo-Moorhead. However, sufficient study has yet to be completed to ensure the rights of the citizens and various entities in Richland County have been accounted for in this revised plan.

Sincerely,

Gary Friskop, Chairman
Richland County Water Resource Board

Comment 11

June 3, 2018

Dear Jill Townley,

In responce to MN DNR revised project statement that I received, I see on XI socioeconomic, you cover what you are going to look at & Not look at.

On the 1st project that you Turned ~~down~~, one of the reasons, I think was mentioned, was to much flood plain was being protected with very little or no population. and possibly to much land in all.
I think the 1st Plan involved about 72 000 acres. with the New Plan B I have here in includes about 76 800 Total acres of impact, so it is even larger.

It is stated that on MN. there will be less impact & fewer acres afected, with the Tie Back following west of Highway #75 To 2 miles south of Comstock MN. But then it is wide open To go where it whats. So if high water would Push back it could spread out east indefinitly. So the claim of less impact To MN. may not be True.

It has been stated that when Fargo completes their dikes, which they are very slow about, they will have 100 year Protection for the city. That is what they claim they want.

With that and if they would cooperate with some retention Projects things could work out. 11a

I am sure you have seen this study before but this can refresh your memory 11b

If this Plan B was to be Permited, who is going To make all the deciding on the exact timing on opening & closing all the gate on dams.

Does the army Corp have complete say or will MN DNR be invaded?

Thank You,

Douglas Christianson
16933 53rd St. S.E.
Kindred, N.D. 58051

WATER RETENTION Spring 2011 TOUR
Red River Basin

Minnesota, South Dakota, North Dakota

HOST:

Red River Basin Commission

With special tour assistance from:

Cass County Joint Water Resource District

With tour assistance from:

Bois de Sioux Watershed District

Buffalo Red River Watershed District

Houston Engineering Inc.

Interstate Engineering

Moore Engineering

NRCS ND/SD

Widseth Smith Nolting

RED RIVER BASIN COMMISSION

CASS COUNTY GOVERNMENT

BUFFALO-RED RIVER WATERSHED DISTRICT

WIDSETH SMITH NOLTING

INTERSTATE ENGINEERING

HoustonEngineering Inc.

moore engineering, inc.

Shaping the Region for 50 Years.

moore engineering, inc.

Proposed Wild Rice Dam

Category:
Water Resources/
Flood Control

Location:
Richland County, ND

Study sponsors:
Richland County Water Resource District and Southeast Cass Water Resource District

Preferred site features:
Drainage area: 1,400 miles^2
Capacity: 50-60,000 ac-ft
Surface area: 4,200 acres

Dam cross section:
Top elevation: 1,048 ft
Height of fill: 36 ft

Challenge

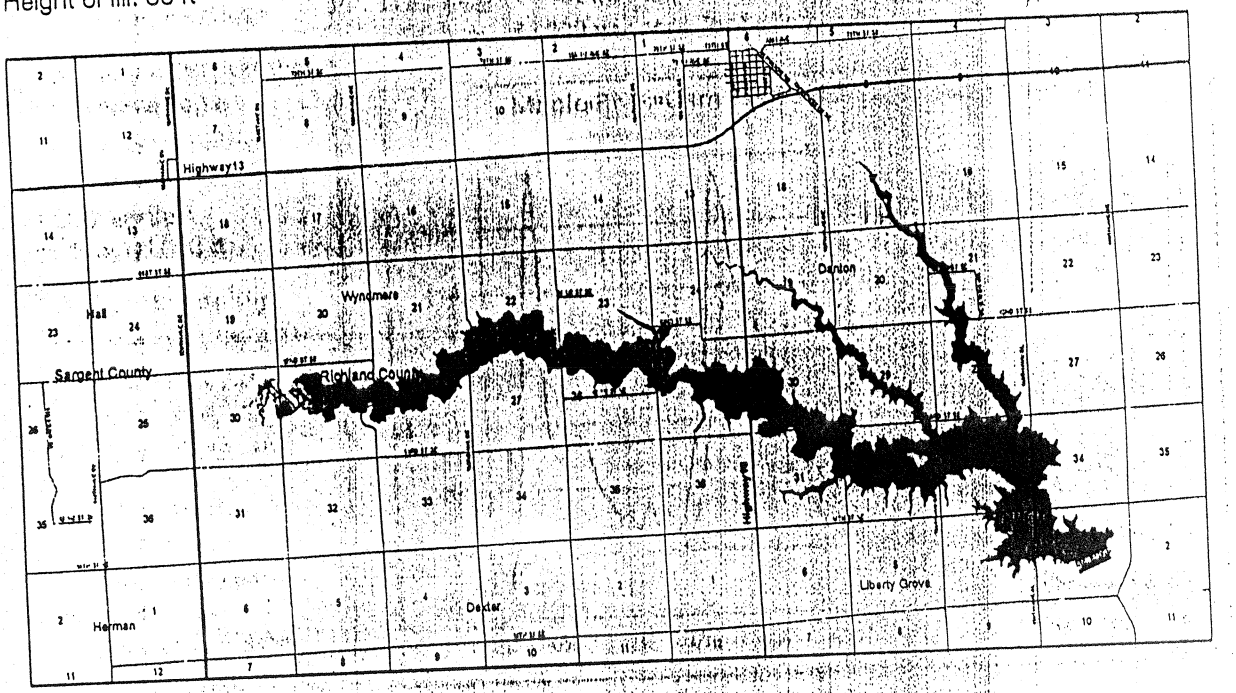
Flooding remains a critical issue up and down the Red River Valley, requiring exploration of water retention opportunities and the identification of solutions. Other considerations include securing the approval and funding to implement solutions, as well as protecting environmental resources.

Proposed solution

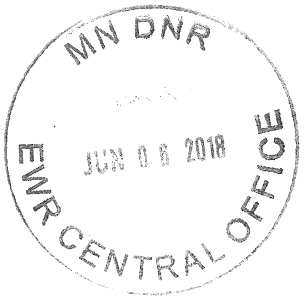
The Richland County and Southeast Cass County Water Resource Districts have completed a study of the Wild Rice and Antelope Creek watersheds, which identified several water retention opportunities. Based on the study results, the Water Resource Districts have selected a 50,000 acre-foot Wild Rice River main stem site for further development. The site is located approximately four miles east of North Dakota State Highway 18 near Mantador, N.D.

Potential project outcomes

An exploratory soils investigation has shown that the site is suitable for the construction of a dam and the districts are in the process of determining the downstream benefits of the proposed facility.



Comment 12



June 4, 2018

Jill Townley
Minnesota Department of Natural Resources
500 Lafayette Road
Box 25
St. Paul, MN 55155-4025

Re: Fargo-Moorhead SEIS

I am concerned that the FM Diversion would negatively impact the following:

- There are still several cemeteries impacted by the new alignment **12a**
- Rural water wells will be impacted **12b**
- Personal wells on existing farmsteads will be impacted
- Septic systems on farmsteads will be impacted
- Many farmsteads will still be impacted. I have a federally built and paid for ring dike around my farmstead, will this be raised to the higher levels that this diversion will require? Several of my neighbors also have ring dikes that will be impacted by this diversion. **12c**
- Will the farmers be compensated for water on their farm land? If the diversion causes a flood after the crops are planted, will the farmers be compensated for the loss of their crops. Federal Crop Insurance does not cover man-made floods.
- Will townships be compensated for erosion and damage to their roads? **12d**
- There are several 90 degree turns on this new alignment, what will stop the water from eroding the embankments and flooding the land it is supposed to protect?
- Who will be in charge of opening and closing the flood gates?

Sincerely,

Marg Cossette
17132, 50th St. SE
Horace, ND 58047

Comment 13

GARY L. PEARSON, DVM
1305 Business Loop East
Jamestown, North Dakota 58401
Telephone (701) 252-6036
Facsimile (701) 251-6160
Email: garypearson@csicable.net

June 1, 2018

Re: Comments on Scope of Supplemental EIS for Revised Fargo-Moorhead Flood Diversion Project

Ms. Jill Townley
Minnesota Department of Natural Resources
500 Lafayette Road, Box 25
St. Paul, Minnesota 55155-4025

Dear Ms. Townley:

The following information is provided in response to the Minnesota Department of Natural Resources' May 21, 2018, request for comments on the scope of the supplemental EIS for the revised Fargo-Moorhead flood diversion project. The Minnesota DNR's News Release announcing the request states:

> "The supplemental review, which is not an entirely new EIS, will focus on **those aspects of the revised project that were not evaluated in the original environmental impact statement (EIS)**." (Emphasis added)

As you know, Section 102(2)(C) of the National Environmental Policy Act requires Federal Agencies to prepare a detailed statement describing the environmental impacts of proposed actions significantly affecting the quality of the human environment, and the courts have confirmed that environmental impact statements are to be full disclosure documents. Subsection 102(2)(C)(iii) then specifies that Environmental Impact Statements are to address "alternatives to the proposed action," and Council on Environmental Quality Regulations and the courts have made it clear that Federal agencies are not simply to consider alternatives typically employed by the agency for implementing the proposed action, but they are to explore all reasonable alternatives to the proposed action. For example, in the landmark 1971 *Natural Resources Defense Council v. Morton* case, the U. S. Court of Appeals for the District or Columbia stated:

> "Congress contemplated that **the impact statement would constitute the environmental source material for the information of the Congress as well as the Executive** in connection with the making of relevant decisions, **and would be available to enhance enlightenment of and by the public**. The impact statement provides the basis for (a) evaluation of the benefits of the proposed action in light of its environmental risks, and (b) comparison of the net balance for the proposed project with the environmental risks presented by **alternative courses of action**." (Emphasis added)

Consequently, the cornerstone of Section 102(2)(C) of the National Environmental Policy act is the two-faceted requirement imposed on Federal agencies to include with every proposal for Federal actions affecting the quality of the human environment a "detailed statement" on "(i) the **environmental impacts of** the proposed action" (emphasis added) and "(iii) **alternatives to** the proposed action." (Emphasis added) It is primarily through this requirement for Federal agencies to identify and analyze alternatives to their proposed actions that NEPA's purpose of promoting efforts which will prevent or eliminate damage to the environment is achieved. Indeed, the analysis of alternatives is so fundamental to the implementation of NEPA that Section 102(2)(D) imposes a specific requirement on Federal agencies to:

> "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources."

The courts also have repeatedly confirmed that NEPA requires a rigorous and objective analysis of alternatives, including alternatives not within the agency's authority, and not simply a listing or dismissive discussion of alternatives not under the agency's traditional purview.

In this context, please note that in its June 22, 2009, letter to the U. S. Army Corps of Engineers regarding the scoping of the Corps' Environmental Impact Statement for the Fargo-Moorhead flood diversion project (copy enclosed), the National Wildlife Federation stated that:

> "In order to evaluate a full range of alternatives, we urge the COE to 1) expand the study area to include all upstream watershed basins and 2) evaluate wetland restoration and other non-structural approaches as an alternative for flood control and protection."

The National Wildlife Federation then went on in its June 22, 2009, letter to provide five additional pages of information and documentation to support its recommendation that the Corps evaluate a wetland restoration alternative in its EIS for the Fargo-Moorhead flood diversion project.

In its November 4, 2009, letter to the U. S. Army Corps of Engineers regarding the Corps scoping document for the Fargo-Moorhead flood diversion project (copy enclosed), the National Wildlife Federation stated:

> "NWF submitted a letter during the comment period requesting that the Army Corps consider a basin-wide, non-structural approach to flood mitigation which would restore wetlands and watersheds in the Red River basin. . .
>
> A basin-wide approach to flood mitigation, utilizing wetland restoration is directly related to the purpose of this project. As the NWF comment establishes, a basin-wide approach is a cost effective, long-term solution to flood mitigation. Further it is within the duties of the Army Corps to consider wetland health when undertaking a project. . .
>
> We believe that an EIS on flood control for the Red River that does not have an alternative or alternatives that fully evaluate wetland restoration, waffling and other non-structural options cannot fulfill NEPA's mandate that all reasonable alternatives be considered."

In their August 9, 2010, letter to the U. S. Army Corps of Engineers (copy enclosed) commenting on the Corps' *Draft Feasibility Report and Environmental Impact Statement on the Fargo-*

Moorhead Metropolitan Area Flood Risk Management Project on the Red River of the North, the National Wildlife Federation and the South Dakota Wildlife Federation stated:

> "We are exceedingly disappointed that the Corps has proposed building 'The big ditch' without a basin-wide analysis of how flood risk can best be managed and without more thoroughly considering other structural and non-structural alternatives that would not only reduce flood risk, but also provide additional environmental and economic benefits. From our analysis, it seems clear that a combination of wetland restoration and farm field storage projects could provide effective flood control and also provide significant benefits to fish and wildlife resources, water quality, and local economics."

Following its 10-page critique of the Corps' Draft EIS for the Fargo-Moorhead flood diversion project, the National Wildlife Federation and South Dakota Wildlife Federation concluded:

> "In recent case law, it is determined that '[w]hile the EIS need not be exhaustive, the existence of a viable but unexamined alternative renders an [EIS] inadequate.' *Friends of the Boundary Waters v. Dombeck*, 164 F.3d 1115, 1128 (8th Cir. 1999). There is no doubt that the Corps' DEIS leaves many alternatives unexamined. We strongly urge the Corps to fully address and consider the use of non-structural techniques for flood control. It is irresponsible for the Corps not to consider more reasonable, but similarly effective solutions that do not have the long-term effects on the tributaries and streams of the Red River."

The enclosed copy of the 30-page June 20, 2011, Comments of the MnDak Upstream Coalition to the Fargo-Moorhead Metropolitan Area Flood Risk Management Supplemental Draft Feasibility Report and Environmental Impact Statement of April, 2011 confirms the Corps' continued refusal to consider wetland restoration as an alternative to or an integral component of structural measures to control flooding in the Fargo-Moorhead metropolitan area.

It should be noted that the U. S. Army Corps of Engineers' refusal to analyze a wetland restoration alternative for controlling flooding in the Fargo-Moorhead metropolitan area was not due to a lack of information for evaluating such an alternative because, in addition to a robust scientific literature documenting the impacts of wetland drainage on flooding, LIDAR mapping data are available for the Red River Basin in North Dakota and Minnesota. In fact, the Corps' refusal to evaluate a wetland restoration alternative for controlling flooding in the Fargo-Moorhead metropolitan area was not based on technical or economic infeasibility at all, but rather on a summary dismissal of consideration of a wetland restoration alternative because, according to the Corps, it was not "politically feasible."

Of course, the Corps' arbitrary dismissal of a wetland restoration alternative as politically infeasible constitutes a blatant and calculated violation of the fundamental purpose of the National Environmental Policy Act, which, as defined by the U. S. Court of Appeals for the District of Columbia, is to provide "the environmental source material for the information of the Congress as well as the Executive, in connection with the making of relevant decisions."

By failing to meet its statutory obligation under NEPA, the Corps is deliberately assuring that not only the Congress and the Executive, but also the public, will continue to be deprived of the information necessary for making relevant and informed decisions regarding the efficacy and feasibility of wetland restoration in controlling flooding in the Fargo-Moorhead metropolitan area. Therefore, the Minnesota Department of Natural Resources should do what the Corps has failed to do and perform an objective and comprehensive analysis of wetland restoration as an

13a

alternative for controlling flooding in the Fargo-Moorhead metropolitan area so that government agency officials, elected officials and the public can make informed and responsible decisions for addressing the problem.

Sincerely,

Gary L. Pearson

Gary L. Pearson, DVM

NATIONAL WILDLIFE FEDERATION®

Northern Rockies and Prairies Regional Center

240 N Higgins, #2 • Missoula, MT 59802 • Tel: 406-721-6705 • Fax: 406-721-6714 • www.nwf.org

June 22, 2009

Terry J. Birkenstock, Chief,
Environmental and Economic Analysis
Branch, 190 Fifth Street East, St. Paul,
MN 55101–1638

Re: Scoping Comments on Proposed Flood Risk Management Project on the Red River of the North

Dear Mr. Birkenstock:

On behalf of the National Wildlife Federation, we offer these scoping comments on the Environmental Impact Statement being prepared by the Corps of Engineers on the Flood Risk Management Project on the Red River of the North.

In the Notice of Intent (74 Fed. Reg. 20684, May 5, 2008), the Corps of Engineers proposed to evaluate measures for reducing flood risk in the Fargo-Moorhead Metropolitan Study Area. Alternatives to be evaluated include, but are not limited to, levees and floodwalls, diversion channels, non-structural flood proofing, relocation of flood prone structures, and flood storage.

In order to evaluate a full range of alternatives, we urge the COE to 1) expand the study area to include all upstream watershed basins and 2) evaluate wetland restoration and other non-structural approaches as an alternative for flood control and protection.

In preparing this scoping letter, we have been impressed by the amount and quality of the literature available that evaluates wetland restoration and other non-structural mechanisms as an alternative to structural approaches to flood control. From our perspective, levee construction and diversions are very expensive, threaten downstream communities with additional flood hazard and offer no environmental benefits. In contrast, wetland restoration can reduce flood peaks and shift the timing of flood events even while providing a broad array of ancillary benefits including cleaner water, larger fish and wildlife populations and enhanced recreational opportunities. We note too, that such benefits have real economic value.

In addition to much research on the positive benefits of wetland restoration, related studies have also demonstrated that wetland drainage in the Red River basin have significantly increased both

the timing and size of Red River floods and also that wetland drainage continues to effect thousands of acres annually. Wetland restoration will help offset these destructive land use practices that are so costly in terms of water quality, wildlife and flood costs.

Because wetland restoration and better watershed management are an economical, ecological and sustainable method for flood control, we strongly urge for the Army Crops of Engineers to go beyond the "quick-fix", expensive and finite solution of levees and diversions, and consider looking "upstream" to a watershed/wetland approach to managing flooding on the Red River.

A. The EIS Must Utilize a Larger Study Area and Evaluate the Impacts of Wetland Drainage on Flood Frequency, Flood Timing and Flood Severity.

The Notice of Intent suggests that the EIS being prepared by the Corps will only evaluate flood impacts and alternatives measures to prevent flooding within the Fargo-Moorhead Metropolitan Area. This limited study area will not allow the Corps to accurately evaluate the causes of increased flooding in the Red River Basin or the full range of alternative remedies, including wetland restoration and other watershed management possibilities. Ample evidence demonstrates that wetland drainage throughout the Red River basin has significantly contributed to increased flood frequencies and flood peaks.

The prairie pothole wetlands of the northern Great Plains are one of the world's great natural resource treasures. Within this 300,000 square mile area, retreating glaciers left tens of thousands of small depressions that seasonally fill with water and provide habitat for millions of waterfowl, shore birds and other wildlife species. Almost since farming began in this region in the mid 1800's, wetland drainage has been employed to increase tillable acreage and to facilitate other agricultural activities. The cumulative impacts of this wetland drainage have been staggering. Over the last 100 years, and especially since the end of the Second World War, over 50% of the region's wetlands have been drained with over 90% in some watershed basins.

In addition to the severe impacts to wildlife and water quality, wetland drainage has also impacted the timing, frequency and severity of floods throughout the region. Wetland drains and channels literally crisscross the entire region and dramatically accelerate spring run-off and reduce upstream, upland water storage capacity.

For example, much of the damage caused by the extensive flooding along the Mississippi River in 1993 resulted from levee failure as the river reestablished historic connections to the floodplain as well as the loss of upstream wetland storage and the alteration of the landscape that encouraged water to quickly drain into the nearest river or stream. Indeed, a recent study by The Wetlands Initiative noted that the wetlands lost in the upper Mississippi River had the capacity to retain all of the water that caused the 1993 flooding. Thus, although elaborate storage dam and levee systems can "reclaim" the floodplain for agriculture and human settlement in most years, the increasingly frequent and inevitable large floods the Great Plains and Midwest are seeing impose high disaster costs to society.

Evidence strongly suggests that wetland drainage has significantly impacted flooding in the Red river basin. In fact, the Red River basin has experience 8 of the 10 all time record flood crests in the past 30 years. One study dealing with watershed contributions to the Red River was published 28 years ago by soil scientists at North Dakota State University. It found an average 60% increase in stream flow rates and concluded that:

> Significant increases in flow to the Maple, Wild Rice and Goose Rivers have occurred over the last 30 to 40 years. Flow rates were shown to be related to climate (precipitation), however, there appears to be no chance in precipitation patterns to account for increase in flow rates. Predicted flow rates were shown to be closely related to basin size due to land drainage in the Maple River and Goose River basins.

Since this study was published, wetland drainage has continued throughout the Red River.

Based on this information, the EIS should enlarge the study area to include all upstream river basins above Fargo-Moorhead. In taking this step, the EIS will necessarily have to evaluate the impacts on flood crests, flood frequencies and flood severity of wetland drainage. Through this evaluation, the EIS can then take the next and most critical step – evaluating the benefits of wetland restoration in terms of reducing these flood impacts.

B. The EIS Must Develop a Wetland Restoration Alternative

Restoring upstream storage capacity must be studied as an alternative to flood mitigation for the Red River. Several studies have demonstrated the effectiveness and feasibility of restoring wetlands or using upland depressions to temporarily store water during a flood event. One such study concluded that, "non-structural means as temporary storage of runoff on agricultural lands in the upland areas of the watershed during periods when flood risks are high, may provide ecological benefits...at the same time diminishing the threat of downstream flooding."[1] Another study concluded that, "floodwater attenuation is one of the most widely recognized ecosystem services provided by restored wetlands..." The potential storage capacity on USDA program lands in the PPR alone is, conservatively, 56,513 ha-m (458,151 acre-feet) of water, if filled to maximum capacity.[2] Additionally, restoring drained and farmed wetlands could increase the water retention capacity of a watershed in the PPR of Minnesota, "by up to 63%."[3] Depressional wetlands in the Devils Lake basin of North Dakota have the potential to store around 72% of the total runoff volume from a 2-year frequency runoff event and 41% of a 100-year frequency runoff event.[4]

1. The Restoration of Wetlands can significantly reduce flood frequency and severity while also providing vital ecosystem benefits.

The benefits of wetland restoration are numerous. Wetlands provide various ecosystem services to farmers and communities, recreational opportunities, global warming mitigation, and most importantly, flood control. One study concluded that, "wetlands on [USDA] program lands [in the PPR] have significant potential to intercept and store precipitation that otherwise might

contribute to "downstream" flooding.[5] Additionally, the "conversion of cultivated cropland to grassland cover as part of conservation programs results in a reduction in surface runoff and, ultimately, reduces the rate at which a basin refills and overflows.[6]

An Army Corps study on the Charles River in Massachusetts concluded that the floodplain wetlands were so effective for flood control the Corps purchased the wetlands rather than drain them to build a levee system. Maintaining the 3,400 ha of wetlands in the Charles River basin rather than draining them saved Boston an additional $17 million in flood damages per year.[7] Another study looking at the relationship between upstream wetland drainage and downstream flooding concluded that, the increase in peak stream flow was significant for all sizes of streams when wetlands were removed.[8]

Utilizing wetlands for flood protections provide a multitude of additional benefits. Increasing wetland habitat will provide stability to migrating and nesting bird habitats as well as numerous other species of wildlife. This in turn creates opportunities for hunting, fishing, bird watching, hiking and other types of recreation. Wetlands also serve as nature's kidneys, filtering polluted water and releasing cleaner water into both nearby ground and surface waters. This improves water quality. Wetlands further serve to recharge ground and surface waters, meaning that while they prevent flooding in wet times, they serve to replenish and retain adequate water supplies and stream flow during drier times. As climate change increases the severity and frequency of both floods and droughts, these functions will become crucial to maintaining healthy aquatic systems and to protecting communities from the impacts of climate change. Wetlands play at least two critical roles in mitigating the effects of climate change, "one in the management of greenhouse gases (especially carbon dioxide) and the other in physically buffering climate change impacts."[9] Studies show the great potential for wetlands to act as carbon sinks to sequester carbon, thus mitigating the impacts of global warming. USGS data suggests that terrestrial carbon capture may be greater in wetlands over smaller acreage than the potential capture on a larger area of cropland.[10]

Given the multitude of benefits in addition to flood protection that wetland restoration provides, especially in light of the many challenges presented by climate change, it is the most effective, affordable, and ecologically sound solution for the Red River basin, and must be given the full consideration of the Army Corps of Engineers, when preparing the EIS for the proposed flood protection plan, found at 74 FR 20684.

2. The Prairie Pothole Region (PPR) Provides Viable Wetland Restoration Opportunities

The prairie landscape, prior to major drainage and alteration after European settlement, was defined by its wetlands.[11] This system of wetlands is still vitally important today, but in need of restoration to provide the functions it once provided. The significance of the prairie wetland landscape is exemplified in the Prairie Pothole Region (PPR) of the United States and Canada. This area extends over 300,000 square miles from north central Iowa and western Minnesota

through North and South Dakota, into eastern Montana and north into Canada. The unique Prairie Pothole ecosystem is the result of retreating glaciers, which left the landscape dotted with pothole wetlands.[12] Despite the harsh climate of wet/dry cycles, winter freezing and varied salinity, "the PPR is an extremely productive area for both agricultural products and wildlife."[13] The PPR ecosystem is of "unparalleled importance to breeding waterfowl and many other species of wetland wildlife," in addition to acting as a nutrient sink, storing runoff to reduce flooding, sequestering carbon and providing other "environmental and socio-economic values."[14] The PPR hosts more than 300 species of birds which rely on this region – "177 species for breeding and nesting habitat and another 130 for feeding and resting during spring and fall migrations."[15] The PPR is a vital resting and replenishing area for migratory birds. Waterfowl banded in the PPR have been found in 46 other states, 10 Canadian provinces and 23 other countries.[16] In addition to birds, muskrats, foxes, deer and a variety of other wildlife rely on the PPR.[17]

Besides a rich wildlife habitat, the PPR captures precipitation and mitigates flooding. Historically, over "80% of the land surface drained into potholes rather than streams and rivers," where the water would then evaporate or seep into the ground, recharging underground aquifers.[18] Grasslands further reduced the runoff of water and sediment, creating a more stable water level and enabled the area to host a diverse community of native grasses, sedges, rushes and other submersed vegetation.[19] Given the multitude of benefits provided by the PPR, the InterGovernmental Panel on Climate Change (IPCC) concluded in a special report that, "Any additional stress [to the PPR] would be of great concern and could be accommodated only through active programs to protect, enhance, and increase wetland areas in this region."[20]

3. The Waffle Project, combined with Wetland Restoration is also a viable alternative.

One effort currently being studied and potentially implemented in the Red River basin is called the Waffle Project. The Energy & Environmental Research Center (EERC) "recognized the need for alternative methods of flood protection to augment existing flood protection measures. This sentiment was mirrored by other major organizations and agencies in the Red River Basin, and it was determined that innovative concepts of nonstructural measures should be explored to augment the design capacities of structural measures planned to protect against future floods similar in scope to, or greater than, the 1997 flood."[21]

As Minnesota Public Radio reported in 2006, "the waffle plan is simple. Existing roads serve as levees to store water in farmers' fields. The potential for storage is amazing. One square mile storing water a foot deep would hold more than 200 million gallons of water."[22] Because this plan looks to slow the movement of water entering the system at any time, the chances of flooding are greatly minimized. The additional benefit of the plan would allow the retained water to recharge the aquifer and prevent droughts in the future. The Waffle Plan is also a more affordable solution to mitigating flood damage, with the pricetag to implement the Plan across the Red River basin "estimated at $50 million. The protective dike system in Grand Forks cost $397 million."[23] And, the estimated cost of levees or a diversion channel along the Red River far exceed Grand Forks at $625 million and $909 million, respectively.

In this economy, haphazard spending for a levee or diversion project is not only unwarranted, but also irresponsible management of resources, both economically and ecologically. And the extraneous building costs are not a one-time expense. Levees will require continued spending for maintenance and upkeep, and they are uncertain to retain flood waters in our world of extreme weather patterns, so greater structures may have to be built in the future, at greater costs, in order to seize the swelling waters of the Red River.

When the Waffle Project is implemented in conjunction with continued wetland restoration, a successful and long-term flood protection plan results. Programs such as the Waffle Project, Wetland Reserve Program, and other studies and programs through Ducks Unlimited, US Fish & Wildlife, and numerous other agencies and organizations, provide ample data and opportunity to implement wetland restoration as a significant option to prevent flooding downstream.

C. The EIS Must Utilize a Larger Study Area and Consider Wetland Restoration Alternatives in Order to Comply With the National Environmental Policy Act.

An additional requirement for the Army Corps to consider in its EIS are the simultaneous actions of the Fargo-Moorehead Metro Project and the Southside Flood Control Project, which calls into question requirements under NEPA regarding connected actions. An assessment of cumulative impacts is required by the Council on Environmental Quality (CEQ) regulations under NEPA.[24] Cumulative effects are defined as," the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions ."[25]

When considering whether there are cumulative effects or connected actions, an agency must look at the scope of the proposed project and must consider 3 types of actions: connected actions, cumulative actions and similar actions.[26] A connected action means that there is a close relationship between actions which must be considered in a single EIS. Similarly, a single EIS must be prepared for cumulative actions, which when viewed with other actions "have cumulatively significant impacts and should therefore be discusses in the same impact statement."[27] A similar action is one, when viewed with other proposed or reasonably foreseeable actions have similarities that would be reasonable to analyze together in a single impact statement.[28] In the context of the Fargo-Moorhead and Southside Projects, given their timing, scope, relatedness, and proximity, the projects would be considered cumulative actions, and are required, by NEPA, to be considered under a single EIS.[29]

Thank you for considering the comments on the Notice of Intent. Please feel free to contact any us if you would like additional information.

Thomas France

Thomas France, Regional Executive Director

Endnotes:

[1] A. Manale, (Summer 2000). Flood and Water Quality Management trough Targeted, Temporary Restoration of Landscape Functions: Paying upland farmers to control runoff, *Journal of Soil and Water Conservation 55.3*, 285.
[2] USGS, Robert A. Gleason & Brian A. Tangen, *Ecosystem Services Derived from Wetland Conservation Practices in the United States Prairie Pothole Region with an Emphasis on the U.S. Department of Agriculture Conservation Reserve and Wetlands Reserve Programs* ch. D: Floodwater Storage, http://pubs.usgs.gov/pp/1745/pdf/pp1745web.pdf (accessed June 10, 2009).
[3] *Id.*
[4] *Id.*
[5] Gleason & Tangen, *supra* n. 2.
[6] *Id.*
[7] William J. Mitsch & James G. Gosseling, *Wetlands*, 347 (John Wiley & Sons, 2007).
[8] *Id.*. at 349.
[9] The Ramsar Convention on Wetlands, *Wetland Values and Function: Climate Change Mitigation*, http://www.ramsar.org/info/values_climate_e.htm (last updated Dec. 21, 2000).
[10] USGS, *Prairie Wetlands are Important for Carbon Storage*, http://biology.usgs.gov/cro/Fact%20Sheets/carbonnewban.pdf (last updated July 2002).
[11] Susan M. Galatowitsch & Arnold G. van der Valk, *Restoring Prairie Wetlands: An Ecological Approach*, vii (Iowa St. U. Press 1994).
[12] USGS, *Wetlands of the Prairie Pothole Region: Invertebrate Species Composition, Ecology, and Management*, http://www.npwrc.usgs.gov/resource/wetlands/pothole/prairie.htm (last updated Aug. 3, 3006).
[13] *Id.*
[14] Rex R. Johnson, Fred T. Oslund & Dan R. Hertel, (May/June 2008). The past, present and future of prairie potholes in the United States, *Journal of Soil and Water Conservation 63*(3), 85A.
[15] U.S. Fish & Wildlife Service, *Press Release:* ***Prairie Pothole Region to Receive $21 Million for Habitat Acquisition,*** http://www.fws.gov/mountain-prairie/PRESSREL/04-16.htm (March 8, 2004).
[16] *Id.*
[17] Gary L. Pearson, *Draining the Great Marsh*, USA Today (Nov. 1985).
[18] Johnson, et. al., *supra* n. 14.
[19] *Id.*
[20] InterGovernmental Panel on Climate Change, *The Regional Impacts of Climate Change* ch. 8: North America, http://www.ipcc.ch/ipccreports/sres/regional/202.htm (accessed June 22, 2009).
[21] Bethany Bolles, Xixi Wang, Lynette de Silva, Heith Dokken, Gerald Groenewold, Wesley Peck & Edward Steadman, *An Innovative, Basinwide Approach to Flood Mitigation: The Waffle Project*, http://www.undeerc.org/Waffle/info/pdfs/bb-floodmitigation.pdf (accessed June 4, 2009).

[22] Bob Reha, *Waffle Plan researchers convinced they can lower flood levels*, Minnesota NPR, http://minnesota.publicradio.org/display/web/2006/04/13/waffleredux/ (April 17, 2006).
[23] *Id.*
[24] *See* Council on Environmental Quality, *Considering Cumulative Effects Under the National Environmental Policy Act* (Jan. 1997).
[25] 40 CFR § 1508.7
[26] 40 C.F.R. § 1508.25
[27] 40 C.F.R. § 1508.25(a)(2).
[28] 40 C.F.R. § 1508.25(a)(3).
[29] 42 USC §§ 4321, et. seq. *See also*, *Kleppe v. Sierra Club*, 427 U.S. 390, 96 S.Ct. 2718 (1976).

NATIONAL WILDLIFE FEDERATION®

Northern Rockies and Prairies Regional Center

240 N Higgins, #2 • Missoula, MT 59802 • Tel: 406-721-6705 • Fax: 406-721-6714 •
www.nwf.org

November 4, 2009

Colonel John Christensen, Commander
St. Paul District
US Army Corps of Engineers
Sibley Square at Mears Park
190 5th Street East, Suite 401
St. Paul, MN 55101-1638

Dear Colonel Christensen:

On behalf of the National Wildlife Federation (NWF), we offer the following comments and concerns regarding the draft scoping document prepared by the Army Corps of Engineers for the Fargo-Moorhead Metropolitan Area Flood Risk Management Environmental Impact Statement.

NWF submitted a letter during the comment period requesting that the Army Corps consider a basin-wide, non-structural approach to flood mitigation which would restore wetlands and watersheds in the Red River basin. *See* Appendix B of scoping document.

Upon reviewing the scoping document, NWF has concerns regarding the analysis area of the project, which is way too limited of an area to adequately consider a basin-wide alternative. See page 9 of scoping document. Given this very limited geographic study area, it will be impossible to consider the full range of alternatives proposed in the scoping document and undermines the ability for the Corps to fully analyze the non-structural wetland alternative.

The Army Corps is mandated under NEPA to consider the full range of alternatives to an EIS, see 42 USC 4332 and Fund for Animals v. Norton, 294 F. Supp. 2d 92. Though the Corps is not required to exhaust every conceivable alternative, it must nonetheless, fully consider those alternatives reasonably related to the purposes of the project. See, Laguna Greenbelt, 42 F.3d 517.

A basin-wide approach to flood mitigation, utilizing wetland restoration is directly related to the purpose of this project. As the NWF comment establishes, a basin-wide approach is a cost-effective, long-term solution to flood mitigation. Further it is within the duties of the Army Corps to consider wetland health when undertaking a project.

See 33 CFR 325 regarding wetland mitigation, 72 FR 11092 requiring evaluation of cumulative impacts on watersheds. Additionally, Executive Order 11988 on floodplain management requires that an agency "restore and preserve the natural and beneficial values served by floodplains in carrying out its responsibilities" and Executive Order 11990 requires that agencies take action to minimize the "destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities."

We appreciate the attention the Corps has given to this important aspect of floodplain management. See page 16-17 of scoping document. However, the Corps' cursory dismissal of upstream flood storage is insufficient to fulfill the obligations of the Corps under NEPA and executive mandates. Additionally, the Fargo-Moorhead and Upstream Feasibility Study referenced on page 3 of the scoping document discusses only upstream reservoir storage. As the NWF letter submitted during the comment period details, wetland restoration is an ecologically beneficial and financially viable alternative to structural flood control mechanisms. The Prairie Pothole Region provides a great opportunity for wetland restoration to benefit wildlife and the Fargo Moorhead metropolitan area. Finally, a waffle approach to flood control is a viable alternative which has been given little attention throughout this scoping process.

Given the strong mandates to preserve and enhance wetlands and floodplains as well as their viability in flood mitigation, the project area must be expanded in order to allow the Corps to fully analyze the basin-wide wetland/watershed restoration alternative to flood management. We believe that an EIS on flood control for the Red River that does not have an alternative or alternatives that fully evaluate wetland restoration, waffling and other non-structural options cannot fulfill NEPA's mandate that all reasonable alternatives be considered.

Very truly yours,

Thomas M France, Esq
Regional Executive Director

Amanda Hill, Esq.

August 9, 2010

VIA U.S. MAIL AND E-MAIL (aaron.m.snyder@usace.army.mil)

Mr. Aaron Snyder
Corps of Engineers Planner and Project Manager
180 E. Fifth Street East, Ste. 700
St. Paul, MN 55101–1638

Re: Comments on Draft Feasibility Report and Environmental Impact Statement on the Fargo-Moorhead Metropolitan Area Flood Risk Management Project on the Red River of the North

Dear Mr. Snyder:

On behalf of the National Wildlife Federation, we offer these comments on the Draft Feasibility Report and Environmental Impact Statement (DEIS) on the Fargo-Moorhead Metropolitan Area Risk Management Flood Project on the Red River of the North.

The National Wildlife Federation recognizes the need for additional flood control for the Fargo-Moorhead area. Unfortunately, we cannot support moving forward with the U.S. Army Corps of Engineers' ("the Corps") preferred alternative in the DEIS, a massive and expensive diversion channel that will cause unacceptable environmental impacts and put downstream communities and landscapes at additional flood risk.

We are exceedingly disappointed that the Corps has proposed building "The Big Ditch" without a basin-wide analysis of how flood risk can best be managed and without more thoroughly considering other structural and non-structural alternatives that would not only reduce flood risk, but also provide additional environmental and economic benefits. From our analysis, it seems clear that a combination of wetland restoration and farm field storage projects could provide effective flood control and also provide significant benefits to fish and wildlife resources, water quality, and local economies.

We understand the Corps may not have the capacity or the desire to actually move forward with these greener alternatives. Nonetheless, to bring forward a proposal that is so expensive that it may never be funded and so controversial that it may never be built, does no good service to the people of Fargo-Moorhead. In contrast to the divisive ditching project proposed by the Corps, wetland restoration and farm field water storage would be broadly supported by a diverse public that includes farmers, conservationists, and those concerned with economically responsible public works projects.

National Wildlife Federation • Northern Rockies & Prairies Regional Center
240 North Higgins, Suite 2 • Missoula, MT 59802-4445
406-721-6705 [phone] • 406-721-6714 [fax] • www.nwf.org

We urge the Corps to enlist other partners, such as the Natural Resource Conservation Service, the U.S. Fish and Wildlife Service (USFWS), and state and local agencies, and to move forward with a supplemental environmental impact statement that includes a basin-wide assessment and that evaluates a full array of water management alternatives.

A. Introduction

Human activities and alterations in, and around, the Red River Basin (RRB) have led to significant environmental changes throughout the watersheds, including the metropolitan areas of Fargo, North Dakota and Moorhead, Minnesota and their surrounding rural and agricultural communities. Fargo-Moorhead has always been threatened by flooding from the Red River of the North. In the last two decades, however, floods have become more frequent and more severe because thousands of wetlands throughout the RRB have been drained and converted into farmland. Prairie wetlands that once soaked up thousands of acre feet of water have been ditched and drained, increasing both the amount of spring melt water and the rate at which it enters the Red River. North Dakota and Minnesota have lost several hundred thousand acres of wetlands since the establishment of agricultural communities beginning in the 1800s, and North Dakota's wetlands continue to be drained at a rate of 20,000 acres per year.[i] Climate change has also led to earlier and more abundant springtime runoff into the RRB and will continue to do so for the unforeseeable future. As both flood peaks and floods have increased, so too has the cost of fighting floods. The communities of Fargo and Moorhead now spend more than $195 million annually for flood damages.

In response to the threat of more severe and more frequent flooding, the Corps has evaluated a limited number of engineering alternatives to reduce the threat of flooding in the Fargo-Moorhead area. Based on this evaluation, the Corps now proposes to build a 36-mile-long diversion channel around the Fargo-Moorhead area. The Corps' preferred diversion channel alternative will cover 9,382 acres, and will impact 137 acres of forest habitat, 226 acres either directly or indirectly of wetlands, and 39 acres of riverine aquatic habitat. The diversion channel will span between 100 and 300 feet in width. The projected cost of the diversion channel construction is $1.4 billion, although some believe this estimate understates the cost of the project. The Corps' DEIS fails to factor into its cost estimations the expense of potential downstream mitigation that may also be needed, as well as maintenance and operation costs in the future.

The National Wildlife Federation strongly opposes the Corps' proposed diversion channel, and disagrees with many assessments made in the DEIS. Not only will the project be a massive federal and state expenditure, but also does not even guarantee to solve the RRB's current catastrophic flooding problems. Furthermore, the diversion channel will offer no ecological benefits, and will almost certainly have large negative impacts on the region's fish and wildlife and their habitats.

B. The DEIS fails to adequately address the negative consequences of the Red River diversion channel options.

In the DEIS, the Corps has evaluated eight different diversion channel alternatives, including the MN20k, MN25k, MN30k, MN35k, MN40k, MN45k, ND30k, and the ND35k. The ND35k was chosen as the Corps' Locally Preferred Plan (LPP), the MN40k was chosen as the National Economic Development plan (NED), and the MN35k was chosen as the Federally Comparable Plan (FCP).

Under NEPA, it is "mandate[d] that federal agencies take a hard look at the environmental consequences of a major federal action before taking that action." *Mid States Coalition for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 533 (8th Cir.2003). Listed below are several potentially damaging effects of the Corps' LPP, which seriously call into question the thoroughness of the Corps' DEIS.

1. **Most damaging and expensive plan**

The proposed LPP will result in greater ecological impacts than both the FCP and the NED.[ii] More tributaries and roughly 120 more acres of wetlands, forests, aquatic riverine, and fish tributaries and passages will be affected from the LPP than the FCP. The LPP will have a greater impact on wildlife and fisheries than the FCP and the NED. Under the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.), the U.S. Fish and Wildlife Service (USFWS) is authorized to provide recommendations to the Corps on federally funded water development projects. For the reasons listed above, the USFWS has recommended the FCP alternative rather than the LPP.[iii] The comparable costs (in millions) of the LPP, FCP, and NED are $1,462, $1,236, and $1,367, respectively. (DEIS-ES-11).

The Corps selected the LPP primarily because of political considerations. The primary impetus for the construction of the massive diversion channel being proposed has come from the North Dakota congressional delegation and the City of Fargo. Because of lukewarm support for the project by Moorhead and other Minnesota political entities, North Dakota supporters pressured the Corps and the Assistant Secretary for Civil Works to accept the LPP alternative. The result is that the DEIS has identified a preferred alternative that is the most ecologically harmful and the most expensive, the 36-mile North Dakota LPP.

2. **More flooding downstream**

The DEIS states that downstream effects of the diversion channel on social resources could be significant, but it fails to adequately measure these impacts. The Red River is more than 500 miles long, with Fargo and Moorhead being located very near its point of origin at the Bois de Sioux River. Downstream effects of a large diversion channel could impact virtually hundreds of river miles. For the ND35k plan (LPP), the Corps only analyzed 43.5 river miles downstream.

The Red River flows northward and eventually empties into Lake Winnipeg near Manitoba, Canada. The river's northward flow creates an increased possibility of ice downstream. Large pieces of ice in the Red River create an even greater risk of springtime flooding downstream of Fargo-Moorhead, making this region particularly sensitive to springtime runoff. Furthermore, the Fargo-Moorhead diversion channel will also increase water levels downstream because more natural floodplain storage will have been eliminated. In all flooding scenarios mentioned in

section 5.2.1.4.1 (10-percent, 2-percent, and 1-percent chance), it was determined that *more* acreage would be impacted than the amount of acreage that is currently being impacted. (DEIS-153). In July 2010, the Corps issued a Preliminary Downstream Impact Analysis that also demonstrated that that both the LPP and the FCP would cause more flooding downstream. The DEIS needs to provide supporting information that even more homes downstream of Fargo-Moorhead will not be lost due to the increased water levels from the diversion, and that costs of flood control and repairs for flood damage would not actually *increase* as a result of the diversion channel.

3. Changes in sediment distribution

Section 5.2.1.3 states that "the proposed diversion structures should not lead to an appreciable change in suspended sediment concentrations along the project area," but the DEIS fails to give any concrete sedimentation data. The Corps' diversion channel will substantially affect sedimentation in the Red River and other connected tributaries. Sedimentation is a major problem in many rivers and lakes, which can cause a reduction in storage capacity that can lead to flooding. A build up of sediment can also lead to many aquatic changes that could have negative impacts on aquatic life. As a result, fish may begin avoiding areas of heavy sedimentation, ultimately changing their migratory patterns, wintering grounds, nursery areas, or spawning habitat. Valuable fish spawning areas could be covered in silt, and the sediment increase could lead to adult and juvenile fish mortality if their gills become filled with sediment.[iv] Fish foraging success will decline, which could also lead to mortality, especially in younger fish, and adult fish could be kept from spawning due to malnutrition.[v] Therefore, sedimentation impacts and sedimentation mitigation costs must be included in the final EIS.

4. Destruction of wetlands

The diversion channel will affect more than 200 acres of wetlands. The Corps has suggested that any wetland taken away or adversely affected by the diversion channel will be replaced with new wetlands within the diversion channel in a low flow channel. The DEIS describes the low flow channel as "a channel that is typically in the center of a larger channel which is sized to handle small flows from drains, ditches or groundwater." It will be approximately 10 feet wide and 3 feet deep. (DEIS-166). The National Wildlife Federation challenges the feasibility of the Corps' solution of simply "replacing" wetlands by simulating wetland conditions on the bottom of the diversion channel in a low flow channel. A strip of wetlands 10 feet wide does not provide the security and benefits that larger blocks of wetlands provide. The DEIS does not address how these wetlands will be comparable to the previously existing wetlands that were affected by the diversion and does not describe the diversion channel wetlands' functions for surrounding wildlife. In addition, many problems can arise with a low flow channel. The channel will need frequent maintenance and modifications to ensure that it is effective, and it can be very easily damaged in severe situations such as flooding or drought. Section 5.2.1.6.3 of the DEIS states that "wetlands near [the Lower Rush River and the Rush River] could be impacted by not getting the same recharge from overland flooding that they have received in the past," but there is nothing further discussing how those negative impacts will be mitigated and what mitigation efforts will cost. The final EIS must include projected mitigation costs for additional wetlands

that might be impaired such as those near the Lower Rush and Rush rivers. The Corps must also include in its final EIS exactly what function the low flow channel will serve and how it is guaranteed to adequately compensate for existing wetlands adversely affected by the diversion channel.

5. Diversion will affect multiple tributaries and potentially harm their fish and wildlife

The North Dakota diversion would cross five tributaries: Wild Rice River, Sheyenne River, Maple River, Lower Rush River, and Rush River. (DEIS-ES-15). In addition, the DEIS states that "[t]he channels of the Lower Rush and Rush Rivers between the diversion channel and downstream to their confluences with the Sheyenne River will be abandoned..." (DEIS-166).

On page 15 of their Draft Feasibility Report and EIS, the USFWS states that nesting birds, mammals, and mussel species could be displaced or killed during the project's construction, and nesting birds' eggs could be abandoned or crushed. The USFWS states on page 14 of their Draft Feasibility Report and EIS that "construction and excavation within the riverine aquatic habitats could kill adult or juvenile fish," and some fish mortality is unavoidable. The USFWS also states that the additional sediment load, deposition, and accumulation into the Red River could alter aquatic and riverine habitat.

The DEIS indicates that fish could use the diversion channel, but the diversion channel will not contain any meaningful fisheries. The DEIS continues on to state that fish ending up in the diversion channel without their natural habitat will not be a significant issue during the operation of the diversion channel. (DEIS-ES-14). Fish caught in the diversion channel during flooding, however, will be forced to use concrete fish ramps for passage. It is not known at this point whether certain sensitive fish species, such as the Lake Sturgeon, will be successful at using artificial passages. The DEIS also does not address how changing the velocity of water within the diversion might affect certain fish species. The velocity of the water within the diversion and downstream of the diversion could be too strong and prevent certain species and juvenile fish from traveling upstream.

The diversion channel will create numerous problems for multiple tributaries and wildlife and aquatic species. The final EIS must address the negative impacts to all tributaries and the specific adversities facing wildlife and aquatic life. A plan to mitigate these adversities must be identified and mitigation costs must be included in the final EIS.

C. The DEIS failed to analyze flood mitigation in the entire Red River Basin.

In a letter dated June 22, 2009 (attached), we urged the Corps to look for a flood mitigation plan that would alleviate flooding basin-wide rather than just the areas of Fargo and Moorhead. The limited study area of only Fargo-Moorhead does not allow the Corps to accurately evaluate the causes of increased flooding in the RRB or the full range of alternative remedies. In particular, the study would have needed to include the area above or upstream from Fargo-Moorhead. The entire Flood Risk Management study has been flawed from the beginning because the RRB was not analyzed in its totality.

According to the National Weather Service, the Red River of the North has exceeded the flood stage of 18 feet in 47 of the past 108 years, and every year from 1993 through 2010. (DEIS-5). The increased flooding over the past century has been a direct consequence of wetland loss in the interest of agricultural development. Studies have demonstrated that wetland drainage in the RRB has significantly increased both the timing and size of Red River floods and also that wetland drainage continues to affect thousands of acres annually. Wetland restoration throughout the RRB would help offset these destructive land use practices that are so costly in terms of water quality, wildlife and flood costs. Several studies have demonstrated the effectiveness and feasibility of restoring wetlands or using upland depressions to temporarily store water during a flood event. The restoration of wetlands can significantly reduce flood frequency and severity while also providing vital ecosystem benefits.

A possibility for wetland restoration lies in the Prairie Pothole Region's wetlands of the northern Great Plains, which span more than a 300,000-square-mile area. Almost since farming began in this region in the mid 1800s, wetland drainage has been employed to facilitate agricultural activities. According to the 1997 Minnesota Wetlands Conservation Plan, more than 95% of the native wetlands in the Minnesota portion of the RRB and upstream sub-basin have been lost. The cumulative impacts of this wetland drainage have been significant with more than 50% of the region's wetlands having been drained with more than 90% in some watershed basins. Wetlands in the Devils Lake basin of North Dakota have the potential to store approximately 72% of the total runoff volume from a 2-year frequency runoff event and 41% of a 100-year frequency runoff event.[vi] Restoring drained and farmed wetlands could increase the water retention capacity in the Prairie Pothole Region of Minnesota "by up to 63%."[vii] Furthermore, potholes are natural filters for nutrients such as sediments containing nitrogen and phosphorous, therefore, improving water quality.[viii] We recommended to the Corps in our June 22, 2009 letter that they explore and analyze this reasonable and logical alternative, however, the Corps' DEIS failed to do so.

Grasslands or grazing lands span approximately 600 million acres of the United States. Grasslands have proven to be a major source of watershed filtration, ground water recharge, and carbon sequestration. Grasslands have excellent potential to markedly improve water and air quality.[ix] Proper management of existing grasslands can enhance the land's ability to better reduce erosion and flooding by slowing and more evenly distributing surface waters. Grasslands also help the percolation of precipitation creating recharged groundwater aquifers. Conservation of grasslands can occur on private and public lands, and wildlife populations thrive with the availability of these habitats. Through cooperative efforts with agencies such as the Bureau of Land Management (BLM) and the Natural Resources Conservation Service (NRCS), private landowners can learn to maintain their property as grasslands in a manner that is most effective in preventing soil erosion and flooding in the Red River basin. Again, the Corps failed to explore this economically feasible and ecologically friendly alternative in its DEIS.

Based on this information, the Corps should enlarge its study area to include all upstream river basins above Fargo-Moorhead. As a result, the Corps will necessarily have to evaluate the impacts of flood crests, flood frequencies and flood severity of wetland drainage. It is only then

that the Corps can adequately evaluate the benefits of wetland and grassland restoration in terms of reducing these flood impacts.

D. The DEIS failed to adequately evaluate reasonable non-structural and flood storage alternatives.

Without the Corps' study of the entire RRB, it would be impossible to fully and accurately evaluate non-structural alternatives at scale because the study did not identify an analysis of an area that was properly scaled. The study only included Fargo-Moorhead, and for that area only, the DEIS identifies several measures retained for possible inclusion as features of the alternative plans. Those measures include: non-structural measures, flood storage, and wetland and grassland restoration. The DEIS provides an extensive analysis of a non-structural measure contained in Appendix P, which illustrates a very invasive and tedious process of raising and flood-proofing individual homes at a significant cost. However, all other measures, including wetland restoration, grassland restoration, and flood storage are dismissed as stand-alone plans with less than a page of justification in the DEIS.

1. The Corps must evaluate the Waffle Project.

The Energy & Environmental Research Center (EERC) of the University of North Dakota began conducting a four-year study on flood prevention in the wake of the devastating 1997 flood in the RRB. The goal of the study, beginning in 2002, was to see how a process referred to as the Waffle Project ("the Waffle") could mitigate the effects of mild to severe springtime flooding in the population center of Fargo-Moorhead, in addition to the surrounding areas of North Dakota, South Dakota and Minnesota. The Waffle uses micro-basins or preexisting areas, such as depressed agricultural lands bordered by raised roads, for short-term water storage. Agricultural areas make up approximately 74% of the land area in the RRB, making potentially 36,000 square miles of the RRB available for the Waffle Project.[x] The study randomly selected 3,732 sections of land to use in evaluating water storage potential, and multiple scenarios were used due to non-uniformity of Waffle sizes. The sections showed that their storage volume estimate was 583,400 acre-feet, which includes a reduction for the freeboard between the stored water surface and the lowest point on the surrounding roads and a reduction to account for natural water storage.[xi] The most significant impact shown in the study was a 7-foot decrease in the water level of the Red River in the Fargo-Moorhead area during floods. The study showed that the Waffle can successfully slow and significantly reduce the drainage of excess runoff before it enters water tributaries, most notably, the Red River of the North.

a. Costs associated with the Waffle

Costs associated with the Waffle were projected for a 50-year period. The Waffle would first involve finding landowners willing to enroll in the program, and then implementing the project by modifying existing culverts and installing new culverts and other water control mechanisms. There would also be costs associated with landowner payments and maintenance, and administrative overhead. Adjustments to cost projections were made for probability of flood occurrence, expected damage to residential and commercial properties and public infrastructure,

current economic conditions and value of real property, changes in flood protection, and future population changes. Waffle sizes were also divided into three categories: maximum, moderate and minimum, with costs projected as baseline, optimistic and pessimistic on full-scale and half-scale hypothetical models. Below are the results of this cost analysis.

Present Value of Projected Costs of the Waffle, 2006 through 2055[xii]

Scale & Acreage Est.	Baseline	Optimistic	Pessimistic
Full-Scale			
Minimum	$207,931,000	$155,739,000	$287,326,000
Moderate	$362,191,000	$269,537,000	$494,872,000
Maximum	$543,040,000	$402,721,000	$738,602,000
Half-Scale			
Minimum	$107,964,000	$80,915,000	$149,494,000
Moderate	$184,797,000	$137,578,000	$252,897,000
Maximum	$275,505,000	$204,386,000	$375,132,000

The cost analysis table above illustrates that a plan for significant flood reduction on a full-scale effort can be implemented for between $156 and $739 million during the next 50 years. This is a stark contrast from the Corps' $1.4 billion diversion channel, a price tag that only includes construction cost, and not operations and maintenance costs. The above table and the Waffle study's flood reduction results flatly contradict the Corps' conclusion that flood storage is cost prohibitive and less effective than a 36-mile diversion channel. The Waffle study suggests that significantly less storage than that determined by the Corps is needed to achieve a substantial flood level reduction. The numbers that the Corps lists in Section 3.4.6.2 of the DEIS were derived from a very preliminary modeling effort conducted through the Fargo-Moorhead Upstream Feasibility Study, which did not actually look at specific storage options in each of the tributaries of the Red River. Instead, the Corps estimated what the tributary flow reduction would be based on general assumptions. There is no rational explanation supporting the Corps' conclusion that doubling the storage volume from 200,000 acre-feet to 400,000 acre-feet only achieved another 0.2-feet stage reduction at Fargo.

b. Economic benefits from the Waffle

The Waffle Project studies show that net benefits of the Waffle could be significant over the next 50 years, with benefits being positive in 106 of the 108 scenarios that were evaluated. More than 85% of the scenarios indicated benefits in excess of $300 million, and more than half of the scenarios had benefits in excess of $500 million. Some scenarios showed economic benefits of up to $700 million.[xiii]

2. The Corps must evaluate other flow reduction strategies.

Similar to the EERC's Waffle, the Red River Basin Commission (RRBC) also created a strategy that would decrease flood levels in the RRB. They simulated 1997 flood conditions (9.25" of

precipitation) and found that their storage areas could reduce flood levels in the Red River up to 20% in some areas. They found that the most significant reduction was a 20% peak flow reduction and 20% volume reduction at White Rock, South Dakota. The study demonstrates that storage areas built in river basins are 80% effective, and if all of the tributary basins upstream of the Red River do their share in flood storage, effects on Red River flood reduction can be substantial.[xiv]

There was no formal cost-benefit analysis done for this study. However, preliminary estimates showed that upstream storage competes very favorably with the Corps' diversion channel option because of the ratio based on the Fargo-Moorhead area damages alone. There would also be more widespread flood control benefits, in addition to a great potential for natural resource benefits under this program.

3. The Corps must evaluate an alternative that combines wetland and grassland restoration and other flow reduction strategies.

It is clear that the optimal strategy for minimizing flood risk, while also improving water quality and fish and wildlife habitat in the RRB, would involve a combination of wetland restoration and utilizing farm fields for temporary storage. The Corps, working with state fish and wildlife agencies and other federal agencies including the USFWS and the Natural Resources Conservation Service, should develop an alternative or alternatives that combine these approaches. The National Wildlife Federation urges the Corps to formulate an alternative that would include 500,000 acre-feet of storage through wetland and grassland restoration and an additional 500,000 acre-feet of storage through temporary storage utilizing farm fields.

In evaluating such an alternative, the Corps should consider the following costs and benefits.

- Flood control benefits
- Water quality benefits
- Fishery benefits
- Benefits to upland and migratory birds
- Recreational benefits, including increased hunting and fishing opportunities.

E. Wetland and grassland restoration, combined with flood storage, will have many positive impacts.

A successful and long-term flood protection plan results when flood storage concepts, such as those developed by EERC and RRBC, are implemented in conjunction with grassland and wetland restoration.

1. Protects more than just two cities

The Corps' diversion channel will only provide significant flood protection for two major metropolitan areas, Fargo and Moorhead. All other downstream cities and communities will not receive the benefited flood protection, and will likely see more flooding due to increased water

flow from the diversion channel. Should wetland and grassland restoration strategies be implemented along with flood-water-storage projects, not only will Fargo-Moorhead see decreased flooding, but downstream cities and communities will also experience flood relief. Flooding is also likely to be decreased upstream from Fargo and Moorhead, which only adds to the overall benefit of wetland and grassland restoration and flood storage efforts. Programs such as EERC's Waffle Project, RRBC's Flow Reduction Strategy, and concepts created by numerous other agencies and organizations, including Wetland Reserve Program and USFWS, provide ample data and opportunity to implement wetland and grassland restoration and flood storage as viable alternatives for flood prevention downstream.

2. **Creates and enhances wildlife habitat and recreation, while also mitigating affects of climate change**

Increasing wetland habitat will provide stability to migrating and nesting bird habitats, as well as numerous other species of wildlife. This in turn creates opportunities for hunting, fishing, bird watching, hiking and other recreation. Wetlands also play an important role in filtering polluted water and recharging the aquifer into both nearby ground and surface waters, greatly improving water quality. Grasslands further reduce the runoff of water and sediment, creating a more stable water level and providing an area to host a diverse community of native grasses, sedges, rushes and other submersed vegetation.[xv]

Wetlands play at least two critical roles in mitigating the effects of climate change, "one in the management of greenhouse gasses (especially carbon dioxide) and the other in physically buffering climate change impacts."[xvi] Wetlands International, a global organization that works to sustain and restore wetlands, states that "inland wetlands in arid regions can play a very cost-effective role in attenuating the impacts of extreme weather events such as the impacts of extremes in precipitation and increases in evaporation due to higher temperatures."[xvii] Wetlands serve to recharge ground and surface waters, meaning that while they prevent flooding in wet times, they serve to replenish and retain adequate water supplies and stream flow during drier periods.

The benefits of wetland and grassland restoration are numerous. Wetlands and grasslands provide various ecosystem services to farmers and communities, recreational opportunities, global warming mitigation, and most importantly, flood control. One study concluded that, "wetlands on [USDA] program lands [in the PPR] have significant potential to intercept and store precipitation that otherwise might contribute to downstream flooding."[xviii] Additionally, the conversion of cultivated cropland to grassland cover as part of conservation programs results in a reduction in surface runoff and, ultimately, reduces the rate at which a basin refills and overflows.

3. **Economic benefit to farmers**

The preferred diversion plan (LPP) would eliminate approximately 5,400 acres of farmland from operation. (DEIS-ES-15). On the other hand, the Waffle or Flow Reduction Strategy would only "borrow" or "rent" land from willing landowners in the event of flooding. Even if the land was

used to store water, it would be done early enough in the spring so that the landowner would still be able to farm their crop in most years. Therefore, the payment from these flood storage programs would be a bonus above and beyond the farmer's "normal" agricultural income.

4. Set precedence for other green flood control solutions

As human activity continues to escalate and their harmful affects become increasingly evident through climate change, environmentally friendly alternatives will only gain in popularity. The states of North Dakota and Minnesota have a unique opportunity to show the rest of the nation a more natural and cost effective method of flood control. The precedent could be set for more ecologically favorable flood mitigation efforts rather than more expensive, concrete and environmentally damaging solutions. There has already been an international trend to move toward nonstructural flood control methods, and it is in our nation's best interest to closely follow in the same direction.

F. Conclusion

The U.S. Army Corps of Engineers is planning a 36-mile-long diversion channel around Fargo that will cost North Dakota and the Federal government $1.4 billion to construct. The projected $1.4 billion cost does not even include mitigation and maintenance expenses in the years after construction of the diversion channel has been completed. During this country's time of economic uncertainty, the Corps' project seems not only irrational and impractical, but also downright irresponsible when other green options to restore wetlands and grasslands along with creating flood storage have proven to be just as effective and a far less expensive means of flood mitigation. The Corps' colossal and esthetically displeasing diversion channel will be not only a massive state and federal expenditure, but also an ecological nightmare with resounding affects for centuries. If cities and communities within the Red River Basin do not want to face even bigger and more expensive problems combined with wildlife habitat destruction and decline a decade from now, the Corps must seriously reconsider their chosen diversion channel alternative.

Much of the Red River Basin flooding has been a direct result of wetland and grassland elimination during the past century for the sake of agricultural development. However, even though agricultural land is largely to blame for the present-day flooding predicament, it can now be used as temporary flood storage that would prevent dangerous flood levels. Grasslands and wetlands not only have remarkable abilities to store excess water runoff, but they are also attractive and provide much needed wildlife habitat in a region of the country that continues to have rapid human population increases. In its DEIS, however, the Corps all but completely ignores these environmentally friendly alternatives.

In recent case law, it is determined that "[w]hile the EIS need not be exhaustive, the existence of a viable but unexamined alternative renders an [EIS] inadequate." *Friends of the Boundary Waters Wilderness v. Dombeck*, 164 F.3d 1115, 1128 (8th Cir. 1999). There is no doubt that the Corps' DEIS leaves many alternatives largely unexamined. We strongly urge the Corps to fully address and consider the use of non-structural techniques for flood control. It is irresponsible for

the Corps not to consider more reasonable, but similarly effective solutions that do not have the long-term effects on the tributaries and streams of the Red River.

The National Wildlife Federation sincerely thanks you for considering these comments on the Draft Feasibility Report and Environmental Impact Statement on the Fargo-Moorhead Metropolitan Area Flood Risk Management Project on the Red River of the North. Please do not hesitate to contact us if you have questions or would like additional information.

Thomas France, Regional Executive Director
National Wildlife Federation

Chris Hesla, Executive Director
South Dakota Wildlife Federation

Cc; Senator Byron Dorgan
Senator Kent Conrad
Congressman Earl Pomeroy
Senator Amy Klobuchar
Senator Al Franken
Congressman Collin Peterson
Senator Tim Johnson
Senator John Thune
Congresswoman Stephanie Herseth Sandlin

Endnotes:

[i] Gary L. Pearson, *Draining the Great Marsh*, USA Today, November 1985: 83-89.
[ii] U.S. Fish and Wildlife Service Coordination Act Report, Fargo Moorhead Metro Draft Feasibility Report and Environmental Impact Statement, p. 21 (May 27, 2010).
[iii] *Id.*
[iv] *Id.* at 14.
[v] *Id.*
[vi] USGS, Robert A. Gleason & Brian A Tangen, *Ecosystem Services Derived from Wetland Conservation Practices in the United States Prairie Pothole Region with an Emphasis on the U.S. Department of Agriculture Conservation Reserve and Wetlands Reserve Programs* ch. D: Floodwater Storage, http://pubs.usgs.gov/pp/1745/pdf/;;1745web.pdf (accessed July 8, 2010).
[vii] *Id.*
[viii] Rex R. Johnson, Fred T. Oslund & Dan R. Hertel, (May/June 2008). The past, present and future of prairie potholes in the United States, *Journal of Soil and Water Conservation* 63(3), 86A.

[ix] Grazing Land Conservation Initiative Strategic Plan 2010-2015, http://www.glci.org/images/Current%20News/StrategicPlan_WebVersion3.pdf (accessed August 5, 2010).
[x] J.D. Stoner, D.L. Lorenz, G.L. Wiche & R.M. Goldstein, 1993, Red River of the North Basin, Minnesota, North Dakota, and South Dakota: Water Resources Bulletin, v. 29, no. 4, p. 575-615.
[xi] B. A. Kurz, W.D. Peck, E.N. Steadman, L.L. de Silva, S. K. Hanson, M.D. Kurz, T. K. Simonsen, & X. Wang, 2008, *An Overview of the Waffle Concept, A Tool For Water Management in the Red River Basin.* http://www.undeerc.org/waffle/overview.pdf (accessed August 5, 2010).
[xii] Dean A. Bangsud, Eric A. DeVuyst, & F. Larry Leistritz, *Benefit-cost Analysis of the Waffle®: Initial Assessment*, 37 (North Dakota State University 2008).
[xiii] Kurz, Peck, Steadman, de Silva, Hanson, Kurz, Simonsen, & Wang, *supra* n. xi at 44-52.
[xiv] Red River Basin Commission and Bois de Sioux Watershed District, *Application of the Flow Reduction Strategy in the Bois de Sioux Watershed*, 7-18 (JOR Engineering 2010).
[xv] Rex R. Johnson, Fred T. Oslund & Dan R. Hertel, (May/June 2008). The past, present and future of prairie potholes in the United States, *Journal of Soil and Water Conservation* 63(3), 85A. at 14.
[xvi] The Ramsar Convention on Wetlands, *Wetland Values and Function: Climate Change Mitigation,* http://www.ramsar.org/info/values_climate_e.htm (last updated July 2010).
[xvii] Moreno J. Garcia, *Cost-effectiveness of maintaining and restoring wetlands as an adaptation measure against climate change*, Wetlands International, http://www.indiaenvironmentportal.org.in/files/wetlands%20and%20climate%20change.pdf, (last updated April 2010).
[xviii] Gleason & Tangen, *supra* n. vi.

RINKE NOONAN
attorneys at law

June 20, 2011

Direct Dial: 320-656-3503
Email: jkolb@rinkenoonan.com

Mr. Aaron Snyder
Planner and Project Manager
U.S. Army Corps of Engineers
Saint Paul District
180 E. Fifth Street
Suite 700
Saint Paul, Minnesota 55101-1687

Re: Comments of the MnDak Upstream Coalition to the Fargo-Moorhead Metropolitan Area Flood Risk Management Supplemental Draft Feasibility Report and Environmental Impact Statement of April, 2011

By U.S. Mail, e-mail to aaron.m.snyder@usace.army.mil and digital submission at www.internationalwaterinstitute.or/feasibility

Dear Mr. Snyder:

On behalf of the MnDak Upstream Coalition ("MnDak"), Rinke Noonan submits the following comments to the Fargo-Moorhead Metropolitan Area Flood Risk Management Supplemental Draft Feasibility Report and Environmental Impact Statement of April, 2011 ("SDEIS") prepared by St. Paul District, U.S. Army Corps of Engineers ("Corps"). These comments are furnished pursuant to the Corps' "Notice of Availability" of EIS *No. 20110138, Draft Supplement,* Fargo-Moorhead Metropolitan Area Flood Risk Management, published in the *Federal Register* Volume 76, Number 88, at page 26286 on May 6, 2011, as required by regulations of the President's Council on Environmental Quality ("CEQ") at 40 CFR 1503 et seq. and Corps regulations at 33 CFR 230.19 et seq.

Since the Corps has failed to provide critical technical information in the SDEIS and failed to adequately consider a reasonable range of alternatives to, and all environmental effects of, the Locally Preferred and Tentatively Selected Plan described in the SDEIS, among other inadequacies in the SDEIS, MnDak respectfully requests that the Corps further supplement its analysis and prepare a second Supplemental Draft EIS that addresses the issues raised in these comments.

Suite 300 US Bank Plaza
1015 W St. Germain St.
PO. Box 1497
St. Cloud, MN 56302
320.251.6700

www.rinkenoonan.com

These comments address the inadequacies of the SDEIS under the National Environmental Policy Act ("NEPA"), including (i) an inconsistent articulation of the purpose and need for the Proposed Action; (ii) the inadequate consideration of storage alternatives to achieve a portion of the flood risk reduction objective; and (iii) an incomplete or absent analysis of the environmental and other impacts of the Tentatively Selected Plan. Additional comments focus on the failure of the Corps, during the re-scoping that occurred during the preparation of the SDEIS, to include participation of local government and citizens within the area to be impacted by the Tentatively Selected Plan.

Introduction:

It is futile to assume that Red River shall never again overflow its banks. Man is utterly powerless to prevent its occurring periodically, and whenever it occurs the disastrous consequences will be intensified in proportion to the increased number of inhabitants within the submerged district.

Sir Sandford Fleming, 1880

Sir Stanford Fleming's observation regarding Red River flooding remains as true today as it did over a century ago. It is fortunate that residents of the basin, their political leaders and a multitude of state and federal agencies are currently seized by the flooding issue. However, this seizure peaks in times of high water. Were this a drought time, complacency would have already set in and the cities of Fargo and Moorhead would again be blindly encroaching on the floodplain – saving for the future a multi-billion dollar project to place on the backs of unsuspecting rural communities and citizens throughout the basin.

Since the 1997 flood, governments at all levels have made changes in flood-related policies, funded new programs and changed existing ones, invested in research into many aspects of flooding, and supported the establishment of new institutions such as the Red River Basin Commission. Not only major floods such as that of 1997, but also smaller tributary floods have been the focus for attention. After 1997, the International Joint Commission (IJC) for the Red River basin studied methods to reduce or eliminate the impacts of future major floods. In 2000, the IJC released its report, *Living with the Red. Living with the Red* contained a series of policy and action recommendations directed at major flooding in the Red River basin.

In June 2001, the United States and Canada directed the IJC and the newly created International Red River Board to monitor progress by governments in implementing the recommendations contained in the publication *Living with the Red*, and to provide encouragement for continued cooperative, innovative, and integrated watershed management approaches. In January 2003 the IJC specifically requested the Board to provide a written report on progress. A report indicating substantial progress on many recommendations was prepared and made available to the public through the IJC website.

More recently, in 2006, the Red River experienced a significant flood with relatively little urban damage, although costs were incurred for measures such as closing ring dikes. In 2009 a flood that, at Fargo-Moorhead, exceeded those of 1997 and 1897 occurred. In the lower basin the 2009 flood was exceeded in the instrumental record only by that of 1997. The flood management measures implemented following the 1997 flood have led to a higher level of preparedness and improved mitigation measures. The basin has become more flood resilient, and this significantly reduced the effects of the 2009 flood on the people and communities of the Red River Valley.

The IJC made 28 recommendations to government and endorsed another 30 recommendations of its International Red River Basin Task Force without change. The expenditures since 1997 relating to the IJC recommendations have exceeded one billion dollars. No recommendations have been formally rejected although a few are unlikely to be implemented.

In the United States, policy changes by the Army Corps of Engineers were aimed at a more integrated basin-wide consideration of projects. That is, until the current Fargo-Moorhead plans were initiated. Activities by the Minnesota Red River Watershed Management Board and its North Dakota counterpart, the Red River Joint Water Resource District, continue to seek more integrated approaches.

The articulation of "Purpose and Need" within the SDEIS and associated documents has changed so drastically over the course of the feasibility analysis and EIS development that existing comparable alternatives are no longer feasible or practicable to achieve the overall project purpose:

At least three articulations of project purpose can be found in the SDEIS. First, the main document describes the project purpose as follows: "The purpose of the proposed action is to

reduce flood risk, flood damages and flood protection costs related to the flooding in the Fargo-Moorhead Metropolitan Area." (SDEIS § 2.5)[1].

Second, in its Clean Water Act section 404(b)(1) evaluation, found at attachment 1 to the SDEIS, the Corps describes an overall project purpose as "reducing flood risk from both the Red River and the five North Dakota tributaries." (SDEIS, Attachment 1, p. 17). Finally, the analysis leading to identification of the Tentatively Selected Plan, in phase 4 of the feasibility study, did not focus on the project purpose described in the SDEIS. Rather, it focused on a feasibility objective of eliminating "adverse impacts on floods [sic] levels downstream of the diversion channel outlet." (Feasibility Study – Phase 4, Volume 1, General Report, p. 8)

Analyses based on a drastic departure from the project purpose articulated in the SDEIS have led to the elimination of multiple feasible and practicable project alternatives. The eliminated alternatives would otherwise satisfy the project purpose articulated in the SDEIS. Exacerbating this summary elimination of feasible alternatives is the lack of policy analysis under NEPA and a hard look at the environmental merits of the alternatives. The Tentatively Selected Plan does not meet the project planning objectives and violates the planning constraints.

The outcome is a Tentatively Selected Plan that protects downstream interests, already prone to flooding, at the expense of tens of thousands of acres of prime and unique farmland, several small communities, hundreds of farms and residences and an extensive network of rural infrastructure that is not presently prone to flooding. The shifting project purpose has allowed the Corps to ignore, without substantial analysis, the benefits of distributed storage alternatives

---

[1] The project planning objectives include:

- Reduce flood risk and flood damages in the Fargo-Moorhead metropolitan area.
- Restore or improve degraded riverine and riparian habitat in and along the Red River of the North, Wild Rice River (North Dakota), Sheyenne River (North Dakota), and Buffalo River (Minnesota) in conjunction with other flood risk management features.
- Provide additional wetland habitat in conjunction with other flood risk management features.
- Provide recreational opportunities in conjunction with other flood risk management features.

Planning constraints include:

- Avoid increasing peak Red River flood stages, either upstream or downstream.
- Comply with the Boundary Waters Treaty of 1909 and other pertinent international agreements.
- Avoid negatively impacting the Buffalo Aquifer in Minnesota.
- Minimize loss of floodplain in accordance with Executive Order 11988, Floodplain Management.

(SDEIS §§ 2.6, 2.7).

that would not only benefit flood risk reduction for Fargo-Moorhead, but would also prevent the damage described above.

Prior studies indicate that distributed upstream storage, as opposed to the consolidated storage proposed in the Tentatively Selected Plan, will significantly reduce flood risks across the Red River Basin, including Fargo-Moorhead. Implementation of the Corps' Tentatively Selected Plan, will result in construction of a massive project that will essentially eliminate future opportunities to implement flood risk reduction alternatives, such as distributed upstream storage. After spending over $1.7 billion on the hastily prepared Tentatively Selected Plan, it is highly unlikely the Corps, federal government or any local sponsor, would consider studies or funding for such other alternatives. Though the DEIS expressly acknowledges the basin-wide nature of the solution by stating a SDEIS objective "[t]o develop a *regional* system to reduce flood risk" (SDEIS §1.2), the Corps proceeds toward a narrow-visioned alternative that provides the fewest regional benefits at the greatest expense.

The Corps is now left with an untenable position under NEPA and its and the CEQ's regulations. If, in fact, feasibility considerations under the project purpose require that an alternative "eliminate adverse impacts on floods [sic] levels downstream of the diversion channel outlet," or if the overall project purpose is to "reduc[e] flood risk from both the Red River and the five North Dakota tributaries," then neither the NED plan nor the FCP are feasible, practicable alternatives. The Corps must start over in its planning process in order to identify a valid NED plan or FCP.

The SDEIS ignores prior investments in regional flood planning and current initiatives:

The Corps' existing policies and efforts in the Red River Basin reflect a preference for a basin-wide approach to flood management. For example, the Corps is a signatory to a December, 1998, agreement establishing the Red River Basin Flood Damage Reduction Work Group, a non-binding agreement among Minnesota stakeholders in the Red River Basin, whose members acknowledge certain goals and principles for flood damage reduction.

One principle of the Work Group is that "[water resource problems should not be passed along to others. A solution for a watershed should not create a problem upstream or downstream.]" Speaking to the concept of distributed storage as a regional contribution to a flood risk reduction solution, the principles include the concept that "[w]ater should be stored/managed as close to where it falls as is feasible and practical." The Corps, as an active participant in Red

River Basin planning and study efforts, has endorsed distributed storage as part of an overall solution.

In the US, policy changes by the COE are aimed at a more integrated basin-wide consideration of projects. Activity by the RRWMB and the ND RRJWRD also seeks more integrated approaches. (R.A. Haliday, R. Haliday & Associates, *How Are We Living With the Red? A report to the International Red River Board*, June 15, 2009 http://www.ijc.org/php/publications/pdf/ID1633.pdf at p. 4 (Accessed June 11, 2011)) Somewhere in its haste to make a recommendation to congress, the Corps has lost sight of an integrated, basin-wide approach. The Corps has shown little determination to consider the basin wide benefits in relation to this project. The sole focus of the Corps has been Fargo-Moorhead and no other interest.

The Corps failed to analyze reasonable upstream storage alternatives and to evaluate the Tentatively Selected Plan in light of existing flood management policies and initiatives:

Even if we assume the Corps was not distracted by the shifting articulation of Purpose and Need and competing and inconsistent planning objectives found throughout the SDEIS, the SDEIS fails to analyze a reasonable range of alternatives to the Tentatively Selected Plan. Under NEPA and CEQ regulations, this consideration must include (i) **appropriate initial screening** of such alternatives, (ii) **in-depth analysis of the environmental impacts** of alternatives that survive screening, and (iii) **comparison of these impacts** to anticipated impacts from the Tentatively Selected Plan. CEQ regulations also require the SDEIS to reconcile the Tentatively Selected Plan with existing local or regional flood management policies, as required by NEPA, CEQ regulations, and Corps NEPA regulations, including the Corps' planning notebook, Regulation ER 11 05-2-1 00.

The Corps' Alternatives Screening Document ("Screening Document"), December, 2009, prepared as a foundation for its NEPA analysis, considered and then eliminated five alternatives as stand-alone plans – plans that would be completely effective by themselves. Among these stand-alone alternatives were two forms of upstream flood storage: distributed storage in flood retention ponds and the "waffle," the use of the existing road network with additional water control structures. Both were eliminated because the Corps believed they would be less physically effective and less cost-effective than the various diversion channel plans, and thus did not meet the purpose and need of the study. (Attachment 4 to Appendix O, § 2.5).

Ultimately, in late 2010, a determination was made that diversions were not feasible or practicable stand-alone alternatives to meet flood risk reduction objectives. The Corps backtracked on its initial screening and determined its originally proposed Tentatively Selected Plan was not a practicable alternative.[2]

In its preparation of the SDEIS, the Corps conducted a subsequent screening of alternatives. Accepting that none of the originally scoped measures were adequate as stand-alone alternatives, the Corps looked at combinations of measures in its subsequent screening process – ultimately settling on a combination of diversion channel and consolidated storage[3] as the Tentatively Selected Plan. The subsequent screening, found in Section 8 of Appendix O to the SDEIS, summarily dismissed distributed storage and the "waffle" plan from evaluation. The SDEIS, in turn, failed to properly evaluate them, despite clear evidence of their effectiveness in reducing flood volumes and altering the timing of peak flows.[4] There was no serious analysis and, for this reason, MnDak believes the Corps' elimination of these alternatives is unreasonable, arbitrary and capricious and in violation of NEPA and CEQ requirements.

The Corps relies heavily for its elimination of upstream storage alternatives on the Fargo-Moorhead and Upstream Feasibility Study (FM Upstream). This study remains incomplete but has been refined and demonstrates greater flood reduction potential at lesser cost than previously anticipated. (R. Harnack, comments of Basin-wide Flow Reduction Strategy, June 2011). The Corps' analysis does not appear to have considered the most recent analysis of distributed storage options. Therefore, its alternatives analysis must be considered incomplete and inadequate under NEPA.

---

[2] Upon further study of the North Dakota 35,000 cfs channel alternative (ND35K) using current modeling, the Corps determined that it would have widespread impacts to infrastructure downstream. Given the unacceptability of logistical problems with trying to mitigate for widespread downstream impacts, the ND35K is not a practicable alternative based on current modeling. (April 2011 Supplemental Draft Fargo-Moorhead Metro Feasibility Report, Attachment 1 (Section 404(b)(1) Evaluation), p. 3). The North Dakota alignment has greater downstream effects than the Minnesota alignments. (Appendix O, §7.5.3.4.2, p. O-55). North Dakota alternatives generally have more natural resource impacts than the Minnesota alternatives because they [ND alternatives] cross five tributary streams. (Appendix O, §7.5.3.4.4, p. O-55).

[3] We note that the Corps introduced a new concept called "staging" during the subsequent screening. For all practical purposes the terms "staging" and "storage" are synonymous. (Compare Appendix O, Attachment 4, §2.5.1 to Appendix O, §8.4.2.1.1)

[4] Improved modeling demonstrated that storage alternatives would provide more benefits than initially thought. (Appendix O, §7.4.4, p. O-39)

The Corps' own screening analysis of distributed storage options contradicts its decision to eliminate them from consideration. Appendix O, Section 8.4.3.5 discusses a multitude of beneficial environmental, flood reduction and economic virtues of distributed storage. But in a logic defying turn, the options are summarily eliminated. What is curious is that the supplemental screening recommends retention of storage options for possible inclusion in a Locally Preferred Plan (LPP). In fact, the Tentatively Selected Plan is the LPP and does contain a consolidated storage component. However, no comparison was ever made between the consolidated storage component contained on the Tentatively Selected Plan and distributed storage alternatives. (Appendix O, § 8.4.3.5)

Appendix O, Section 8.4.3.5, makes a series of what it calls "pivotal" conclusions in the evaluation of flood storage:

1. *There are opportunities to implement flood storage and wetland/grassland restoration basin-wide. These measures could have substantial cumulative benefits basin-wide; however they are relatively ineffective in reducing the significant problem of flooding in the Fargo-Moorhead Metro area.*

This conclusion is based on an analysis of storage as a stand-alone alternative. No one has ever indicated that upstream storage is the solution to all the problems in Fargo and Moorhead. However, to suggest that upstream storage is not effective is inconsistent with the current data. 200,000 to 400,000 acre feet of storage in the tributary watersheds that impact Fargo and Moorhead is not unrealistic. The benefit is three fold: One, the retention helps minimize or eliminate the downstream impacts of the diversion; second, the retention provides an additional degree of protection to the cities by reducing the peak flows; and third, the retention has significant benefit for the tributary watersheds by significantly reducing infrastructure damages for roads and bridges, agricultural damages, erosion & sedimentation, and benefits small communities in the area.

The consolidated storage component of the Tentatively Selected Plan does nothing to address the broader basin flood damages. The Corps has already concluded that neither a diversion nor storage can stand alone to achieve the project purpose. The diversion channel is necessary and can only be achieved in combination with storage. It is an analysis to the type and location of storage that is lacking.

2. *It would be difficult and time consuming to implement a 400,000 acre-foot storage system as a unique measure. The most cost effective and timely way to implement a storage system is in increments, creating small impoundments as opportunities arise.*

This conclusion states what is true of the entire effort to provide flood protection to Fargo and Moorhead – it is difficult and time consuming. These factors do not make implementation of storage impracticable or unworthy of analysis.

3. *A system of flood storage is likely unable to offset downstream impacts induced by diversion channels. However, it would be effective in changing the frequency of how often the diversion channel would operate, making it operate less often.*

The phrase "likely unable to offset downstream impacts" is speculative and unsupported by any analysis. Further, it confuses a planning objective with the project purpose and highlights the shifting focus of this project. It presumes that it is unacceptable to have downstream impacts but acceptable to have upstream impacts.

4. *Although flood storage and wetland/grassland restoration measures provide environmental quality benefits and additional wildlife habitat, they would not be justified as an increment to this project, nor would they have much ability to reduce flood damages in the project area.*

The conclusion flies in the face of the Corps' Tentatively Selected Plan. This is primarily because there is no engineering distinction between "staging" and "storage" – both store water on the landscape for a period of time. (Again, compare Appendix O, Attachment 4, §2.5.1 to Appendix O, §8.4.2.1.1) The Corps' conclusion is not support by the existing data. State, regional and local agencies with flood control responsibility in the Red River basin have determined, on the basis of both technical study and experience with existing facilities in the Red River basin, that upstream flood retention storage may be an effective means of flood flow reduction. The conclusion is unsupported by study data or rigorous analysis.

NEPA does not require statistical certainty for an alternative to be studied in an EIS, rather only that it be a reasonable alternative in light of the Project Purpose and Need. Under NEPA, as an otherwise implementable alternative with potentially lower environmental effects, distributed storage qualifies as such an alternative, not to be discarded on the basis of benefit and cost comparisons alone. The Corps' summary elimination of distributed storage alternatives is belied

by a considerable body of study data indicating their effectiveness, some of which is described below and none of which the SDEIS cites or discusses. The Corps' reference to cost is misplaced. The degree of economic benefits, as measured using federal or Corps methodology (e,g., measurement under National Economic Development (NED) criteria using the 1983 principles established by the Water Resources Council methodology, see SDEIS, § 3.8.2.1), while furnishing a basis for selection among *federally* implementable alternatives themselves, is not a NEPA criterion for comparison of federal and otherwise feasible non-federal alternatives.

Significantly, none of the reasons cited in the SDEIS for elimination of distributed storage include adverse or beneficial environmental effects. The SDEIS contains no discussion of the environmental effects of these alternatives, either singly or in comparison to the Tentatively Selected Plan. NEPA requires that each reasonable alternative be "rigorously" explored and its environmental effects identified and evaluated. (CEQ Regulations, 40 CFR Sections 1502.14(a)) The environmental effects of the respective alternatives must then be compared, as between the particular alternatives. (40 CPR Section 1502.16) Several recent studies and reports show that distributed storage would be at least equally effective as the consolidated storage component of the Tentatively Selected Plan, and would have substantially greater regional benefit and positive environmental effects. The Corps ignored these studies, both in its overall alternatives screening process and in the SDEIS discussion of alternatives.

Among these studies is Technical Paper No. 11, dated May, 2004, by the Technical and Scientific Advisory Committee of the Flood Damage Reduction Work Group ("Technical Paper 11") online at http://www.rrwmb.org/files/FDRW/TP11.pdf. Technical Paper 11 evaluates and recommends an array of alternatives, including upstream impoundments along with downstream urban measures, such as removal of channel and floodway obstructions, each contributing to flood prevention in its own way, in tandem with others. This paper is based on distributed storage.

Similarly, the Red River Basin Commission, a basin-wide planning organization in which the Corps participates, published a "Progress Report to the Minnesota Legislature." ("RRBC Progress Report") The RRBC Progress Report sets out a detailed flood damage reduction and project identification strategy calling for reduction in Red River and tributary flood flows by a target percentage (currently set at 20 percent), through a mix of basin-wide approaches, including retention dams, wetland creation and restoration, impoundment, etc. Among the findings in the RRBC Progress Report is an estimate that a million acre-feet of storage would be sufficient to provide basin-wide protection from a flood similar to that of 1997. Using current

costs of $1000 per acre-foot, a basin-wide project would cost over $800 million less than the Tentatively Selected Plan and provide substantially greater benefit to a greater area. (Red River Basin Commission, *Progress Report to the Minnesota Legislature*, http://www.redriverbasincommission.org/2-3-2010_MN_Leg_Rpt.pdf, Appendix 4 (Accessed June 11, 2011)).

The Corps Planning Guidance Notebook, Regulation ER 1105-2-100, contains, in Appendix H, a "Project Study Issue Checklist" ("Corps Issue Checklist") that includes the following planning checklist item (No. 26): "Was the planning effort conducted in a systems/watershed context and was this reflected in the presentation of the without-project conditions, problem and opportunity statements, and the plan formulation, evaluation and selection?" Failure of the SDEIS to consider - or even mention - Technical Paper 11, the RRBC Progress Report, or the substantial technical literature of which these important studies are a part, evidences the Corps' intent to arbitrarily limit consideration of reasonable alternatives, to an extent that not only renders the SDEIS seriously inadequate under NEPA but also patently nonconforming with the Corps' own regulations and guidance.

CEQ Regulations require that an EIS "discuss any inconsistency of a proposed action with any approved State or local plan and laws (whether or not federally sanctioned). Where an inconsistency exists, the statement should describe the extent to which the agency would reconcile its proposed action with the plan or law." (40 CFR Section 1506.2) The DEIS wholly fails to address local plans and policies, including the regional flood reduction policy of the Red River Watershed Management Board (RRWMB), a joint-powers agency comprised of Minnesota watershed districts within the Red River basin. This policy, called the "20% Reduction Policy," developed for the entire basin by the RRBC, centers on the concept of flood flow reduction on the Red River main stem and its tributaries by altering the hydrology of the contributing watersheds on a basin-wide effort. (Red River Basin Commission, *Progress Report to the Minnesota Legislature*, http://www.redriverbasincommission.org/2-3-2010_MN_Leg_Rpt.pdf, Appendix 4 (Accessed June 11, 2011))

On June 14, 2010, the Board of Managers of the RRWMB formally adopted the 20% Reduction Policy. These minutes note, in their words, the Corps' "disagreement" on the benefits of such policy. That the Corps might disagree with a local policy is not a sufficient reason to ignore the policy in the SDEIS or to fail to study the alternatives on which the policy is based. In this case, the 20% Reduction Policy has been developed by the RRBC and adopted by the RRWMB as a policy direction for itself and its constituent watershed districts. As noted throughout these

The prairie pothole wetlands of the northern Great Plains are one of the world's great natural resource treasures. Within this 300,000 square mile area, retreating glaciers left tens of thousands of small depressions that seasonally fill with water and provide habitat for millions of waterfowl, shore birds and other wildlife species. Almost since farming began in this region in the mid 1800's, wetland drainage has been employed to increase tillable acreage and to facilitate other agricultural activities. The cumulative impacts of this wetland drainage have been staggering. Over the last 100 years, and especially since the end of the Second World War, over 50% of the region's wetlands have been drained with over 90% in some watershed basins.

In addition to the severe impacts to wildlife and water quality, wetland drainage has also impacted the timing, frequency and severity of floods throughout the region. Wetland drains and channels literally crisscross the entire region and dramatically accelerate spring run-off and reduce upstream, upland water storage capacity. For example, much of the damage caused by the extensive flooding along the Mississippi River in 1993 resulted from levee failure as the river reestablished historic connections to the floodplain as well as the loss of upstream wetland storage and the alteration of the landscape that encouraged water to quickly drain into the nearest river or stream. Indeed, a recent study by The Wetlands Initiative noted that the wetlands lost in the upper Mississippi River had the capacity to retain all of the water that caused the 1993 flooding. Thus, although elaborate storage dam, diversion and levee systems can "reclaim" the floodplain for agriculture and human settlement in most years, the increasingly frequent and inevitable large floods the Great Plains and Midwest are seeing impose high disaster costs to society.

Evidence strongly suggests that wetland drainage has significantly impacted flooding in the Red River basin. In fact, the Red River basin has experienced 8 of the 10 all time record flood crests in the past 30 years. One study dealing with watershed contributions to the Red River was published 28 years ago by soil scientists at North Dakota State University. It found an average 60% increase in stream flow rates and concluded that: Significant increases in flow to the Maple, Wild Rice and Goose Rivers have occurred over the last 30 to 40 years. Flow rates were shown to be related to climate (precipitation), however, there appears to be no change in precipitation patterns to account for increase in flow rates. Predicted flow rates were shown to be closely related to basin size due to land drainage in the Maple River and Goose River basins. Since this study was published, wetland drainage has continued throughout the basin. Based on this information, the SDEIS should consider an enlarged study area to include all upstream river basins above Fargo-Moorhead. In taking this step, the SDEIS will necessarily have to evaluate the impacts on flood crests, flood frequencies and flood severity of wetland drainage. Through

this evaluation, the SDEIS can then take the next and most critical step – evaluating the benefits of wetland restoration in terms of reducing these flood impacts.

The Corps should have considered a wetland restoration alternative:

Restoring upstream storage capacity must be studied as an alternative to flood mitigation for the Red River. Several studies have demonstrated the effectiveness and feasibility of restoring wetlands or using upland depressions to temporarily store water during a flood event. One such study concluded that, "non-structural means as temporary storage of runoff on agricultural lands in the upland areas of the watershed during periods when flood risks are high, may provide ecological benefits . . . at the same time diminishing the threat of downstream flooding." (A. Manale, *Flood and Water Quality Management through Targeted, Temporary Restoration of Landscape Functions: Paying upland farmers to control runoff*, Journal of Soil and Water Conservation, Summer 2000 55.3, 285) Another study concluded that, "floodwater attenuation is one of the most widely recognized ecosystem services provided by restored wetlands . . ." The potential storage capacity on USDA program lands in the Prairie Pothole Region (PPR) alone is, conservatively, 458,151 acre-feet of water, if filled to maximum capacity. (USGS, Robert A. Gleason & Brian A. Tangen, *Ecosystem Services Derived from Wetland Conservation Practices in the United States Prairie Pothole Region with an Emphasis on the U.S. Department of Agriculture Conservation Reserve and Wetlands Reserve Programs*, Chap. D: Floodwater Storage, http://pubs.usgs.gov/pp/1745/pdf/pp1745web.pdf (accessed June 11, 2011). Additionally, restoring drained and farmed wetlands could increase the water retention capacity of a watershed in the PPR of Minnesota, "by up to 63%." (Id.)

The restoration of wetlands can significantly reduce flood frequency and severity while also providing vital ecosystem benefits:

The benefits of wetland restoration are numerous. Wetlands provide various ecosystem services to farmers and communities, recreational opportunities, global warming mitigation, and most importantly, flood control. One study concluded that, "wetlands on [USDA] program lands [in the PPR] have significant potential to intercept and store precipitation that otherwise might contribute to "downstream" flooding. (Id.) Additionally, the "conversion of cultivated cropland to grassland cover as part of conservation programs results in a reduction in surface runoff and, ultimately, reduces the rate at which a basin refills and overflows." (Id.)

An Army Corps study on the Charles River in Massachusetts concluded that the floodplain wetlands were so effective for flood control the Corps purchased the wetlands rather than drain them to build a levee system. Maintaining the 3,400 hectares of wetlands in the Charles River basin rather than draining them saved Boston an additional $17 million in flood damages per year. (William J. Mitsch & James G. Gosseling, Wetlands, 347 (John Wiley & Sons, 2007)). Another study looking at the relationship between upstream wetland drainage and downstream flooding concluded that, the increase in peak stream flow was significant for all sizes of streams when wetlands were removed. (Id. at 349)

Utilizing wetlands for flood protections provide a multitude of additional benefits. Increasing wetland habitat will provide stability to migrating and nesting bird habitats as well as numerous other species of wildlife. This in turn creates opportunities for hunting, fishing, bird watching, hiking and other types of recreation. Wetlands also serve as nature's kidneys, filtering polluted water and releasing cleaner water into both nearby ground and surface waters. This improves water quality. Wetlands further serve to recharge ground and surface waters, meaning that while they prevent flooding in wet times, they serve to replenish and retain adequate water supplies and stream flow during drier times. As climate change increases the severity and frequency of both floods and droughts, these functions will become crucial to maintaining healthy aquatic systems and to protecting communities from the impacts of climate change. Wetlands play at least two critical roles in mitigating the effects of climate change, "one in the management of greenhouse gases (especially carbon dioxide) and the other in physically buffering climate change impacts." (The Ramsar Convention on Wetlands, Wetland Values and Function: Climate Change Mitigation, http://www.ramsar.org/pdf/cop8/cop8_doc_11_e.pdf (November 2002))

Studies show the great potential for wetlands to act as carbon sinks to sequester carbon, thus mitigating the impacts of global warming. USGS data suggests that terrestrial carbon capture may be greater in wetlands over smaller acreage than the potential capture on a larger area of cropland. (USGS, Prairie Wetlands are Important for Carbon Storage, http://biology.usgs.gov/cro/Fact%20Sheets/carbonnewban.pdf (last updated July 2002)) Given the multitude of benefits in addition to flood protection that wetland restoration provides, especially in light of the many challenges presented by climate change, it is the most effective, affordable, and ecologically sound solution for the Red River basin, and must be given the full consideration of the Army Corps of Engineers, when preparing the EIS for the proposed flood protection plan, found at 74 FR 20684.

Grassland areas upstream of Moorhead provides viable distributed storage opportunities not possible with the consolidated storage component of the Tentatively Selected Plan in the SDEIS:

Grasslands or grazing lands span approximately 600 million acres of the United States. Grasslands have proven to be a major source of watershed filtration, ground water recharge, and carbon sequestration. Grasslands have excellent potential to markedly improve water and air quality. (Grazing Land Conservation Initiative Strategic Plan 2010-2015, http://www.glci.org/images/Current%20News/StrategicPlan_WebVersion3.pdf (accessed June 11, 2011)) Proper management of existing grasslands can enhance the land's ability to better reduce erosion and flooding by slowing and more evenly distributing surface waters. Grasslands also help the percolation of precipitation creating recharged groundwater aquifers. Conservation of grasslands can occur on private and public lands, and wildlife populations thrive with the availability of these habitats. Through cooperative efforts with agencies such as the Bureau of Land Management (BLM) and the Natural Resources Conservation Service (NRCS), private landowners can learn to maintain their property as grasslands in a manner that is most effective in preventing soil erosion and flooding in the Red River basin. Again, the Corps failed to explore this economically feasible and ecologically friendly alternative in its DEIS.

Based on this information, the Corps should enlarge its study area to include all upstream river basins above Fargo-Moorhead. As a result, the Corps will necessarily have to evaluate the impacts of flood crests, flood frequencies and flood severity of wetland drainage. It is only then that the Corps can adequately evaluate the benefits of wetland and grassland restoration in terms of reducing these flood impacts.

The Waffle Project, combined with wetland restoration is also a viable alternative:

One effort currently being studied and potentially implemented in the Red River basin is called the Waffle Project. The Energy & Environmental Research Center (EERC) "recognized the need for alternative methods of flood protection to augment existing flood protection measures. This sentiment was mirrored by other major organizations and agencies in the Red River Basin, and it was determined that innovative concepts of nonstructural measures should be explored to augment the design capacities of structural measures planned to protect against future floods similar in scope to, or greater than, the 1997 flood." (Bethany Bolles, Xixi Wang, Lynette de Silva, Heith Dokken, Gerald Groenewold, Wesley Peck & Edward Steadman, An Innovative, Basinwide Approach to Flood Mitigation: The Waffle Project,

40 (Accessed June 11, 2011)) Overall, the analysis concludes that "the Waffle appears to be capable of generating around $200 million to $600 million in net benefits over a 50-year period." (Id. at p. 56) Failure to accurately characterize and soundly analyze research studies and data on the "waffle" renders the SDEIS' lack of consideration of this alternative incomplete, misleading and in violation of NEPA.

The SDEIS should evaluate an alternative combining diversion alignments and a mix of distributed storage options against the current diversion/consolidated storage configuration of the Tentatively Selected Plan:

Alternatives incorporating distributed upstream storage as a component of the Proposed Action should have been considered in the SDEIS alongside the Tentatively Selected Plan. As it is, the Corps has only performed a detailed analysis of a single alternative in the SDEIS. The suggested, additional alternatives analysis is required by NEPA and, as noted above, is supported by considerable technical study and opinion. Because detailed analysis of distributed storage alternatives was omitted from feasibility screening and, thus, left out of the SDEIS, it is not possible to know whether distributed upstream storage will cause less economic, social and environmental damage than the Tentatively Selected Plan.

Similar to the EERC's Waffle, the Red River Basin Commission (RRBC) also created a strategy that would decrease flood levels in the Red River basin. They simulated 1997 flood conditions (9.25" of precipitation) and found that their storage areas could reduce flood levels in the Red River up to 20% in some areas. They found that the most significant reduction was a 20% peak flow reduction and 20% volume reduction at White Rock, South Dakota. The study demonstrates that storage areas built in river basins are 80% effective, and if all of the tributary basins upstream of the Red River do their share in flood storage, effects on Red River flood reduction can be substantial. (Red River Basin Commission and Bois de Sioux Watershed District, Application of the Flow Reduction Strategy in the Bois de Sioux Watershed, 7-18 (JOR Engineering 2010))

There was no formal cost-benefit analysis done for this study. However, preliminary estimates showed that upstream storage competes very favorably with the Corps' diversion channel option because of the ratio based on the Fargo-Moorhead area damages alone. There would also be more widespread flood control benefits, in addition to a great potential for natural resource benefits under this program.

It is clear that the optimal strategy for minimizing flood risk, while also improving water quality and fish and wildlife habitat in the Red River basin, would involve a combination of wetland restoration and utilizing farm fields for temporary storage. The Corps, working with state fish and wildlife agencies and other federal agencies including the USFWS and the Natural Resources Conservation Service, should develop an alternative or alternatives that combine these approaches. The National Wildlife Federation urges the Corps to formulate an alternative that would include 500,000 acre-feet of storage through wetland and grassland restoration and an additional 500,000 acre-feet of storage through temporary storage utilizing farm fields.

Wetland and grassland restoration, combined with flood storage, will have many positive impacts:

A successful and long-term flood protection plan results when flood storage concepts, such as those developed by EERC and RRBC, are implemented in conjunction with grassland and wetland restoration. In evaluating such an alternative, the Corps should consider the following costs and benefits: flood control benefits; water quality benefits; fishery benefits; benefits to upland and migratory birds; and recreational benefits, including increased hunting and fishing opportunities.

1. Protects more than just two cities: The Corps' Tentatively Selected Plan will only provide significant flood protection for two major metropolitan areas, Fargo and Moorhead. Upstream communities will be damaged and remaining areas of the basin will not receive the benefited flood protection, and will likely see flooding similar to that they are now experiencing. Should wetland and grassland restoration strategies be implemented along with flood-water-storage projects, not only will Fargo-Moorhead see decreased flooding, but communities throughout the basin will also experience flood relief. Basin-wide flood reduction only adds to the overall benefit of wetland and grassland restoration and flood storage efforts. Programs such as EERC's Waffle Project, RRBC's Flow Reduction Strategy, and concepts created by numerous other agencies and organizations, including Wetland Reserve Program and USFWS, provide ample data and opportunity to implement wetland and grassland restoration and flood storage as viable alternatives to the consolidated upstream storage currently proposed.

2. Creates and enhances wildlife habitat and recreation, while also mitigating affects of climate change: Increasing wetland habitat will provide stability to migrating and nesting bird habitats, as well as numerous other species of wildlife. This in turn creates opportunities for hunting, fishing, bird watching, hiking and other recreation. Wetlands also play an important

role in filtering polluted water and recharging the aquifer into both nearby ground and surface waters, greatly improving water quality. Grasslands further reduce the runoff of water and sediment, creating a more stable water level and providing an area to host a diverse community of native grasses, sedges, rushes and other submersed vegetation. (R. R. Johnson, F. T. Oslund & D. R. Hertel, *The past, present and future of prairie potholes in the United States*, Journal of Soil and Water Conservation, May/June 2008, 63(3), 85A. at p. 14)

Wetlands play at least two critical roles in mitigating the effects of climate change, "one in the management of greenhouse gasses (especially carbon dioxide) and the other in physically buffering climate change impacts."(The Ramsar Convention on Wetlands, *Wetland Values and Function: Climate Change Mitigation*, http://www.ramsar.org/pdf/cop8/cop8_doc_11_e.pdf (November 2002)) Wetlands International, a global organization that works to sustain and restore wetlands, states that "inland wetlands in arid regions can play a very cost effective role in attenuating the impacts of extreme weather events such as the impacts of extremes in precipitation and increases in evaporation due to higher temperatures." (Moreno J. Garcia, *Cost-effectiveness of maintaining and restoring wetlands as an adaptation measure against climate change*, Wetlands International, http://www.indiaenvironmentportal.org.in/files/wetlands%20and%20climate%20change.pdf, (last updated April 2010)) Wetlands serve to recharge ground and surface waters, meaning that while they prevent flooding in wet times, they serve to replenish and retain adequate water supplies and stream flow during drier periods.

The benefits of wetland and grassland restoration are numerous. Wetlands and grasslands provide various ecosystem services to farmers and communities, recreational opportunities, global warming mitigation, and most importantly, flood control. One study concluded that, "wetlands on [USDA] program lands [in the PPR] have significant potential to intercept and store precipitation that otherwise might contribute to downstream flooding." (Gleason & Tangen, supra) Additionally, the conversion of cultivated cropland to grassland cover as part of conservation programs results in a reduction in surface runoff and, ultimately, reduces the rate at which a basin refills and overflows.

3. Economic benefit to farmers: The Tentatively Selected Plan will eliminate tens of thousands of acres of prime and unique farmland from operation and place still more at risk of limite production. On the other hand, the Waffle or Flow Reduction Strategy would only "borrow" or "rent" land from willing landowners in the event of flooding and, in most cases, will use natural storage areas to store greater amounts of water. Even if cropland was used to store water, it

would be done early enough in the spring so that the landowner would still be able to farm their crop in most years. Therefore, the payment from these flood storage programs would be a bonus above and beyond the farmer's "normal" agricultural income.

4. Set precedence for other green flood control solutions: As human activity continues to escalate and their harmful affects become increasingly evident through climate change, environmentally friendly alternatives will only gain in popularity. The states of North Dakota and Minnesota have a unique opportunity to show the rest of the nation a more natural and cost effective method of flood control. The precedent could be set for more ecologically favorable flood mitigation efforts rather than more expensive, concrete and environmentally damaging solutions. There has already been an international trend to move toward nonstructural flood control methods, and it is in our nation's best interest to closely follow in the same direction.

The SDEIS omits analysis of connected actions and cumulative effects:

An additional requirement for the Corps to consider in its SDEIS are the simultaneous actions of the Fargo-Moorhead Metro Project and the Southside Flood Control Project, which calls into question requirements under NEPA regarding connected actions. An assessment of cumulative impacts is required by the Council on Environmental Quality (CEQ) regulations under NEPA. (Council on Environmental Quality, Considering Cumulative Effects Under the National Environmental Policy Act (Jan. 1997)) Cumulative effects are defined as, "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions." (40 CFR § 1508.7) When considering whether there are cumulative effects or connected actions, an agency must look at the scope of the proposed project and must consider 3 types of actions: connected actions, cumulative actions and similar actions. (40 C.F.R. § 1508.25) A connected action means that there is a close relationship between actions which must be considered in a single EIS. Similarly, a single EIS must be prepared for cumulative actions, which when viewed with other actions "have cumulatively significant impacts and should therefore be discusses in the same impact statement." (40 C.F.R. § 1508.25(a)(2)) A similar action is one, when viewed with other proposed or reasonably foreseeable actions have similarities that would be reasonable to analyze together in a single impact statement. (40 C.F.R. § 1508.25(a)(3)) In the context of the Fargo-Moorhead and Southside Projects, given their timing, scope, relatedness, and proximity, the projects would be considered cumulative actions, and are required, by NEPA, to be

considered under a single EIS. (42 USC §§ 4321, et. seq. See also, *Kleppe v. Sierra Club*, 427 U.S. 390, 96 S.Ct. 2718 (1976))

Cumulative effects analysis is an additional, central, and critical component of NEPA. (See Council on Environmental Quality, Considering Cumulative Effects, http://ceq.hss.doe.gov/nepa/ccenepa/ccenepa.htm, January, 1997 (Accessed June 11, 2011)) Incomplete modeling of flood impacts upstream of the diversion structure and tie-back levees for the Tentatively Selected Plan, and failure of the SDEIS to consider anything beyond possible "taking" of real property, make a meaningful evaluation of cumulative effects on upstream communities impossible. Based on the incomplete information in the SDEIS, there is no way for any of the communities in the upstream storage area, or any other commenter for that matter, to evaluate the effect, over time, of frequent and persistent innundation:

- Impacts to agricultural land, including delayed planting, crop stress, prevented access to fields.
- Damage to improvements, including rural infrastructure, residential and commercial properties and social, religious and educational institutions.
- Additional economic and psychological burden to local residents from increased or new flood protection and risk mitigation efforts.
- Economic damage to residents, including reduced farm or business income, reduced property values and increased mitigation costs.
- Increased flood insurance expense, including rejection of crop insurance.
- Increased risk to persons and property resulting from flood-delayed response by law enforcement and other emergency responders, such as fire and ambulance.
- High fiscal burdens to residents for maintenance, repair or replacement of infrastructure or private improvments.
- Accelerated migration of rural residents, particularly younger people, to the safety of non-flood prone or protected areas. Local communities, left with declining and aging populations, and vulnerable to flood, more than they are today, will suffer irreversible decay. NEPA requires analysis of this socioeconomic degeneration. (Id., Appendix A, Section 11) But the SDEIS is silent on it and on this basis alone is inadequate and must be supplemented before it is presented to the Corps' final decision maker.

Upstream communities and residents, including then members of MnDak, are being asked to bear new burdens for the sake of Fargo-Moorhead and for the sake of eliminating downstream impacts. The upstream communities and residents are owed a detailed analysis and explanation

of the impacts, including cumulative impacts listed above, under the Tentatively Selected Plan. Without such analysis, the SDEIS is inadequate and must be supplemented.

The SDEIS fails to adequately address the negative consequences of the Red River diversion channel options:

In the SDEIS, the Corps has evaluated only one alternative, the Tentatively Selected Plan against the NED pan and FCP developed prior to the SDEIS. Neither the NED plan nor the FCP were updated during development of the SDEIS.

Under NEPA, it is "mandate[d] that federal agencies take a hard look at the environmental consequences of a major federal action before taking that action." *Mid States Coalition for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 533 (8th Cir.2003). Discussed below are several potentially damaging effects of the Corps' LPP, which seriously call into question the thoroughness of the Corps' SDEIS.

The Tentatively Selected Plan will result in greater ecological impacts than both the FCP and the NED plan. More tributaries and hundreds more acres of wetlands, forests, aquatic riverine, and fish tributaries and passages will be affected by the Tentatively Selected Plan than the FCP. The Tentatively Selected Plan will have a greater impact on wildlife and fisheries than the FCP and the NED. Under the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.), the U.S. Fish and Wildlife Service (USFWS) is authorized to provide recommendations to the Corps on federally funded water development projects. For the reasons listed above, it is likely that the USFWS will recommend the FCP alternative rather than the Tentatively Selected Plan. As discussed herein, such a recommendation will be problematic for the Corps since the FCP is no longer a practicable alternative to achieve the ever-changing project purpose.

The Corps selected the Tentatively Selected Plan primarily because of political considerations. The primary impetus for the construction of the massive diversion channel and consolidated upstream storage area being proposed has come from the North Dakota congressional delegation and the City of Fargo. Because of lukewarm support for the project by Moorhead and other Minnesota political entities, North Dakota supporters pressured the Corps and the Assistant Secretary of the Army for Civil Works to accept the Tentatively Selected Plan – mind you they previously pressured the ASA-CW to approve a LPP that later proved to cause massive downstream damage. The result is that the SDEIS has identified a Tentatively Selected Plan that is the most ecologically harmful and the most expensive, the 36-mile North Dakota LPP. The

comparable costs (in billions) of the Tentatively Selected Plan, FCP, and NED are $1.7, $1.2 , and $1.4, respectively.

The DEIS states that upstream effects of the consolidated storage area on social resources could be significant, but it fails to adequately measure these impacts. The river's northward flow creates an increased possibility of ice downstream further impeding the flow of water through the diversion structure increasing the magnitude of upstream flooding in an area not normally prone to flooding except in the largest run-off events. The Tentatively Selected Plan exacerbates this problem by removing thousands of acres of floodplain associated with the diversion.

The SDEIS fails to give any concrete sedimentation data. The Corps' diversion channel will substantially affect sedimentation in the Red River and other connected tributaries. Sedimentation is a major problem in many rivers and lakes, which can cause a reduction in storage capacity that can lead to flooding. A build up of sediment can also lead to many aquatic changes that could have negative impacts on aquatic life. As a result, fish may begin avoiding areas of heavy sedimentation, ultimately changing their migratory patterns, wintering grounds, nursery areas, or spawning habitat. Valuable fish spawning areas could be covered in silt, and the sediment increase could lead to adult and juvenile fish mortality if their gills become filled with sediment. Fish foraging success will decline, which could also lead to mortality, especially in younger fish, and adult fish could be kept from spawning due to malnutrition.

Therefore, sedimentation impacts and sedimentation mitigation costs must be, but were not included in the SDEIS. The diversion channel will affect more than 200 acres of wetlands. The Corps has suggested that any wetland taken away or adversely affected by the diversion channel will be replaced with new wetlands within the diversion channel in a low flow channel. The SDEIS describes the low flow channel as "a channel that is typically in the center of a larger channel which is sized to handle small flows from drains, ditches or groundwater." It will be approximately 10 feet wide and 3 feet deep. A strip of wetlands 10 feet wide does not provide the security and benefits that larger blocks of wetlands provide. The SDEIS does not address how these wetlands will be comparable to the previously existing wetlands that were affected by the diversion and does not describe the diversion channel wetlands' functions for surrounding wildlife. In addition, many problems can arise with a low flow channel. The channel will need frequent maintenance and modifications to ensure that it is effective, and it can be very easily damaged in severe situations such as flooding or drought. Wetlands near the five North Dakota tributaries intercepted by the diversion channel will not receive the same

recharge from overland flooding that they have received in the past. The SDEIS does not address these impacts or their mitigation. The SDEIS must include projected mitigation costs for additional wetlands that will be impaired such as those near the five North Dakota tributaries. The Corps must also include in its SDEIS exactly what function the low flow channel will serve and how it is guaranteed to adequately compensate for existing wetlands adversely affected by the diversion channel.

The diversion contemplated in the Tentatively Selected Plan will cross five tributaries: Wild Rice River, Sheyenne River, Maple River, Lower Rush River, and Rush River. In addition, the SDEIS states that "[t]he channels of the Lower Rush and Rush Rivers between the diversion channel and downstream to their confluences with the Sheyenne River will be abandoned . . . Nesting birds, mammals, and mussel species could be displaced or killed during the project's construction, and nesting birds' eggs could be abandoned or crushed. Construction and excavation within the riverine aquatic habitats could kill adult or juvenile fish," and some fish mortality is unavoidable. The additional sediment load, deposition, and accumulation into the Red River could alter aquatic and riverine habitat.

The SDEIS indicates that fish could use the diversion channel, but the diversion channel will not contain any meaningful fisheries. The SDEIS continues on to state that fish ending up in the diversion channel without their natural habitat will not be a significant issue during the operation of the diversion channel. Fish caught in the diversion channel during flooding, however, will be forced to use concrete fish ramps for passage. It is not known at this point whether certain sensitive fish species, such as the Lake Sturgeon, will be successful at using artificial passages. The DEIS also does not address how changing the velocity of water within the diversion might affect certain fish species. The velocity of the water within the diversion and downstream of the diversion could be too strong and prevent certain species and juvenile fish from traveling upstream.

The diversion channel will create numerous problems for multiple tributaries and wildlife and aquatic species. The final EIS must address the negative impacts to all tributaries and the specific adversities facing wildlife and aquatic life. A plan to mitigate these adversities must be identified and mitigation costs must be included in the final EIS.

1. Determine if a proposed action is in the base floodplain (that area which has a one percent or greater chance of flooding in any given year).
2. Conduct early public review, including public notice.
3. Identify and evaluate practicable alternatives to locating in the base floodplain, including alterative sites outside of the floodplain.
4. Identify impacts of the proposed action.
5. If impacts cannot be avoided, develop measures to minimize the impacts and restore and preserve the floodplain, as appropriate.
6. Reevaluate alternatives.
7. Present the findings and a public explanation.
8. Implement the action.

Among a number of things, the Interagency Task Force on Floodplain Management clarified the EO with respect to development in flood plains, emphasizing the requirement for agencies to select alternative sites for projects outside the flood plains, if practicable, and to develop measures to mitigate unavoidable impacts.

With regarding to the Tentatively Selected Plan, the City of Fargo has made clear its desire and intent to open additional areas of the flood plain to development. This is one reason why management of flooding from the five North Dakota tributaries has become so important in rushing the Tentatively Selected Plan to decision. During re-scoping from November 2010 through March 2011, Fargo specifically requested the diversion channel alignment be moved further west. The request was made with the expressed intent of providing additional protection to lands in the current flood plain for future development. While the request was rejected, the current design supports the same intent. The current design eliminates thousands of acres from the flood plain. The diversion channel includes 15 foot, elevated spoil banks designed to serve as flood levees. (See SDEIS figures 15 and 29 and §3.5.3.3)

Several practicable alternatives to this design exist that would prevent federal support to future flood plain development. These same practicable alternatives would increase the efficacy of distributed storage and/or reduce the requirement for the currently proposed consolidated storage area. For example, if the diversion channel were designed to take advantage of the additional, nature flood attenuation provided by the flood plain, rather than closing it behind spoil levees, less new storage would be required and a smaller diversion channel could be planned. Alternatively, moving the diversion structure further north would allow storage in naturally flood prone areas of the flood plain – again reducing the requirement for new storage. If combined with the distributed storage alternatives discussed herein, the consolidated storage component of the Tentatively Selected Plan, upstream of the diversion structure and tie-back

Conclusion:

The U.S. Army Corps of Engineers is planning a 35,000 acre water storage area and a 36-mile-long diversion channel around Fargo that will cost North Dakota and the Federal government $1.7 billion to construct, with the Federal government's share limited to $782 million. The projected $1.7 billion cost does not include mitigation and long term maintenance expenses in the years after construction of the diversion channel has been completed. During this country's time of economic uncertainty, the Corps' project seems not only irrational and impractical, but also downright irresponsible when other, less expensive alternatives to restore wetlands and grasslands along with creating flood storage have proven to be effective and create more and further reaching benefits. The Corps' colossal and esthetically displeasing diversion channel will be not only a massive state and federal expenditure, but also an ecological nightmare with resounding affects for centuries. If cities and communities within the Red River Basin do not want to face even bigger and more expensive problems combined with wildlife habitat destruction and decline a decade from now, the Corps must seriously reconsider their Tentatively Selected Plan.

Much of the Red River Basin flooding and associated damage has been a direct result of encroachment into the floodplain and loss of natural storage. These losses of natural storage are best replicated and replaced through distributed storage measures. Poor and marginal farmland and drained areas not currently under production, along with some active and productive farmland can be used as temporary flood storage that would prevent dangerous flood levels. Grasslands and wetlands not only have remarkable abilities to store excess water runoff, but they are also attractive and provide much needed wildlife habitat in a region of the country that continues to have rapid human population increases. In its SDEIS, however, the Corps all but completely ignores these alternatives and certainly did no analysis to compare them to its Tentatively Selected Plan.

The absence of substantial and significant information regarding the environmental and other impacts of the Tentatively Selected Plan likewise renders the SDEIS inadequate on its face and requires that the Corps prepare an additional Supplemental DEIS to fully compare alternatives and to include all information on which the Corps based its decision to adopt the Tentatively Selected Plan. The Corps' failure to include critical impact information in the SDEIS violates NEPA and its own NEPA regulations, is arbitrary and capricious as well as unreasonable.

In recent case law, it is determined that "[w]hile the EIS need not be exhaustive, the existence of a viable but unexamined alternative renders an [EIS] inadequate." *Friends of the Boundary Waters Wilderness v. Dombeck*, 164 F.3d 1115, 1128 (8th Cir. 1999). There is no doubt that the Corps' SDEIS leaves many alternatives largely unexamined. We strongly urge the Corps to fully address and consider the use of distributed storage and non-structural techniques for flood control. It is irresponsible for the Corps not to consider more reasonable, but similarly effective solutions that do not have the long-term effects on the tributaries and streams of the Red River.

Sincerely,

/s/ John C. Kolb
John C. Kolb
JCK/cmt

cc: MnDak Upstream Coalition

Comment 14

From: Glacier Enterprises
To: MN_Review, Environmental (DNR)
Subject: Warren Township
Date: Wednesday, June 06, 2018 4:36:55 PM
Attachments: Warren Township.pdf

Hi Jill

Here is Warren Township response to the SEIS letter

Thank you

Warren Township
9605 81st Street South
Horace, ND 58047

June 6, 2018

Warren Township response to Jill Townley , SEIS Project Manager
F-M Flood Risk Management – Revised Project

What does Plan B do to Warren Township, FEMA insurance rates and elevation of new homes?

In as much as the Fargo Diversion is intended to delete the operation of the Sheyenne Diversion from Horace through West Fargo, at the time of the construction of the Sheyenne River Diversion, the Corps of Engineers stated that no diking could occur along the Sheyenne River south of Horace through Kindred to the Sand Hills. Since the Sheyenne Diversion will be obsolete, landowners will want to dike the Sheyenne River which will impact the Fargo Diversion.

Therefore, at what land elevation will water enter the Fargo Diversion in Warren Township? With the Red River water and Wild Rice River water connecting with the Sheyenne River, what is the exact impact to Warren Township with the Sheyenne River dikes being raised to carry more water? 14a

According to your project operation, referenced as the Western Tie-Back, will likely consist of a lower reach that would function as a spillway to the west if a significant problem occurs during Project operation. This spillway would be constructed to a lower elevation. However, it will build up water to the west into Warren township.

According to Jason Benson, two spillways would be installed to handle the overland flooding in Warren Township. However, the height of the spillway is a big concern to Warren Township. We don't want the diversion water to flow west. So, what height is the spillway compared to land elevation going to be? 14b

The Sheyenne Diversion caused many miles of standing water when the diversion was operating at high levels because the culvert system was not properly designed.

Jeff Fuchs, Chairman
Warren Township Board of Supervisors

Comment 15

From: Mark Waltz
To: MN_Review, Environmental (DNR)
Subject: Fargo - Moorhead SEIS
Date: Thursday, June 07, 2018 3:25:43 PM

As a resident of the Hickson, ND Bakke Addition this plan was never about upstream or protecting the valley, it has always been about Fargo growth and this "Plan B" is still that. I live on the north side of the Bakke addition and will have an approximate 14 to 17 foot high ring dike right behind my property. NO concerns or plans to deal with all the snow that the dike will collect in our development. **15a** We will flood internally. I repeatedly ask them at every meeting how they will deal with it. They have no plan. I was actually told at the last meeting they will have a resolution board to review complaints and problems. So when we flood, we can file a complaint. They state a snow fence will work, believe me, I have placed snow fences for years and they do not work with the open farm fields to the north. The Oxbow construction should be ordered to stop until a plan has been created and approved.

Mark Waltz
309 Plum Tree Road
Hickson, ND 58047
mwaltz55@hotmail.com

Comment 16

From:	Craig Hertsgaard
To:	MN_Review, Environmental (DNR)
Subject:	Public Comment Fargo Moorhead SEIS
Date:	Thursday, June 07, 2018 7:40:12 PM
Attachments:	SEIS comments.docx JPA-TAG Modeling Summary Map.pdf

Ms. Townley:

Attached find my comments on the Fargo Moorhead Flood Protection SEIS. Thank you for considering my comments.

Craig Hertsgaard
5530 165th Ave SE
Kindred, ND 58051

June 7, 2018

Ms. Jill Townley
SEIS Project Manager
Ecological and Water Resources Division, DNR

I do not believe that the current Fargo Moorhead Diversion Authority permit application to establish a dam on the Red and Wild Rice Rivers, and construct a 32 mile long diversion channel should be permitted under Minnesota law. The Finding of Fact document from the original permit application cites numerous proposed violations of state statues that also apply to the subject of this review. These comments will focus on two co-dependent issues that clearly define the current proposal as unpermittable.

Paragraph 85 of the Finding of Fact states:

"The commissioner must find that the proposed Project represents the "minimal impact solution to a specific need with respect to all other reasonable alternatives." Minn. R. 6115.0190, subp. 5E, 6115.0200, subp. 5C and 6115.0210, subp. 5A (2015).

The "minimal impact solution" in this case must be applied to management of the floodplain. In the recent Task Force process conducted by governors Mark Dayton and Doug Burgum, DNR Commissioner Tom Landwehr stressed the Minnesota statutes and rules relating to flood risk management projects. The Commissioner cited ten state directed policies that supported 103A.207 which states, "It is the policy of this state to reduce flood damages through floodplain management, stressing nonstructural measures…." According to the Finding of Fact, 103F.115 says, "Structural projects which have the purpose of controlling floods are to be considered only as elements of a floodplain management program." The conclusion from these two mandates is that the only flood control project that can be permitted is one that has the least impact to the floodplain.

The Task Force did not identify an alternate plan that significantly lessened floodplain impacts of the project. But the subsequent TAG committee process did identify solutions that protected the area defined by the Task Force as meeting project goals, while having a significantly smaller impact to the natural floodplain than the project under current application.

Attached is the 'TAG Optional Alignments' map generated by HMG at the conclusion of the TAG process. Diversion alignments 'JPA Southern Alignment Revised' and 'Modeled JPA-NW Alignment' provide lesser impact alignments of the diversion channel that the one proposed as 'Plan B' by the Diversion Authority. The chart below summarizes the results of alternate alignments modeled by the TAG group. **16a**

	Permit Denied by DNR	Current Permit Application	Combined JPA South Alignment
Pool Height[1]	**921.66 feet**	**920.98 feet**	**916.2 feet**
Total Floodplain impacts	**35,456 acres[2]**	**28,005 acres[2]**	**12,570 acres[3]**

Important Elevations	
Comstock	**920 feet**
Clara Cemetery	**915 feet**
Richland/Wilkin County Line	**918 feet**
Hickson/Oxbow/Bakke	**916 feet**
Top Embankment Height	**930 feet**

[1]Results modeled using HEC-RAS hydrologic engineering model

[2]Modeled by Houston Moore Group(HMG)

[3]Calculated from HMG TAG modeling and Optional Alignments Map

The JPA alignments are reasonable and practicable alternatives. They protect the developed area and infrastructure of the Fargo Moorhead area. They allow reasonable space for future development given the ability for the communities to grow to the east, completely outside the 100 and 500 year floodplains. The area northwest of Fargo along the banks of the Sheyenne River is environmentally sensitive and should remain sparsely populated. The area east and southeast of Horace has historically functioned as critical natural floodplain that serves as flood protection for the community and region.

The JPA alignments are minimum impact floodplain alternatives when compared to 'Plan B'. The above chart shows Total Floodplain Impacted Acres by the JPA alignment to be less than half those of 'Plan B'.

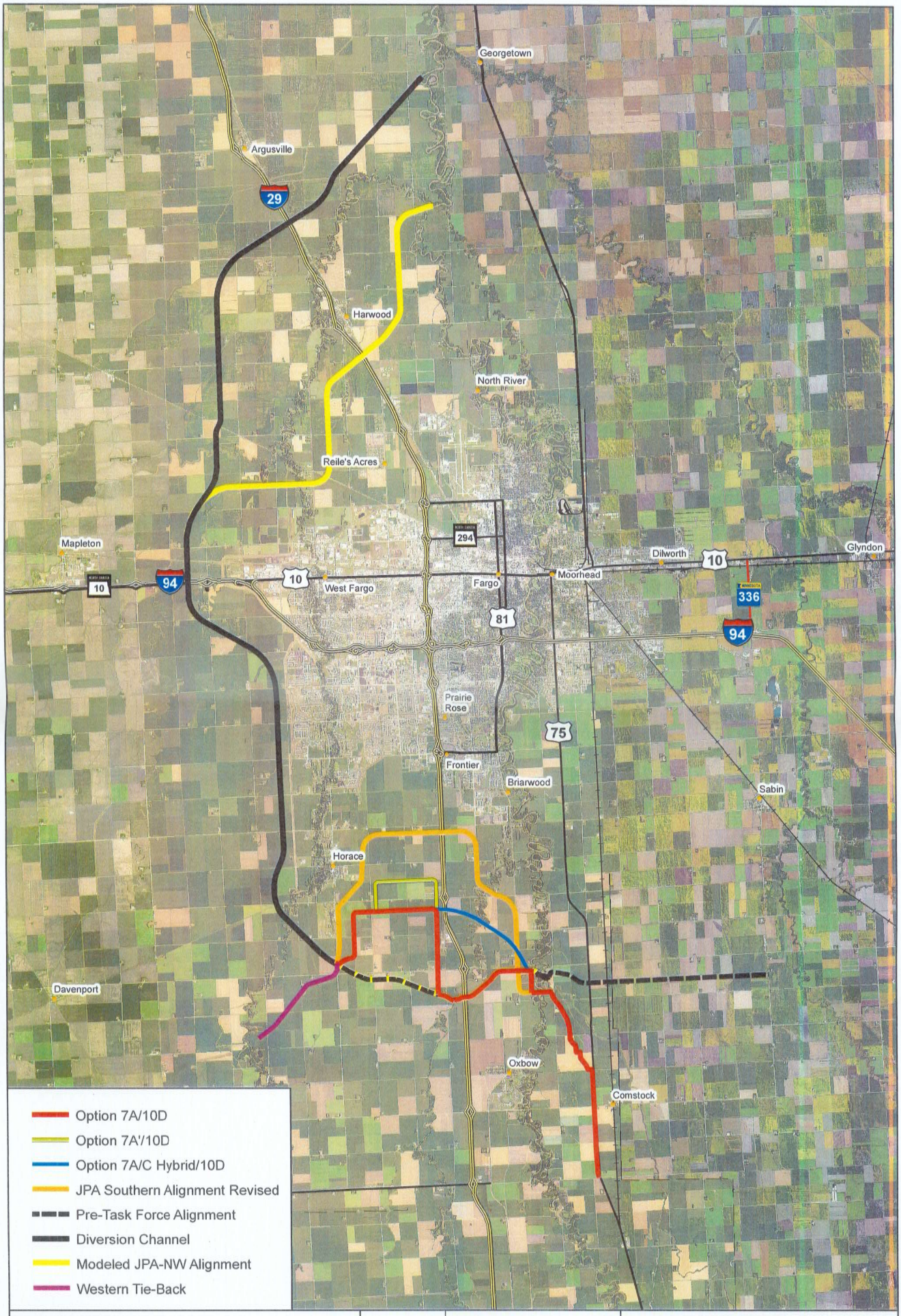
A comparison of elevations of important locations upstream of the project and projected staging area elevations, shows significantly lesser impacts from the JPA alignments.

Minnesota Statute 103G.245 Subd. 7 says "A public-waters-work permit may be issued only if the project will involve a minimum encroachment, change, or damage to the environment…." The JPA alignments clearly demonstrate that the 'Plan B' proposal does not constitute the least impact alternative in regard to Minnesota law, and therefore should not be permitted.

Thank for the opportunity to comment as part of the SEIS process.

Respectfully,

Craig Hertsgaard
5530 165th Ave SE
Kindred, ND 58051
hertsfarm@juno.com



TAG Optional Alignments

N
W E
S

0 0.75 1.5 3
Miles

HMG

Created By: enelson Date Created: 02/09/2018 Date Exported: 3/7/2018 Image: 2016 County NAIP Elevation Data: NA
Horizontal Datum: NAD 1983 StatePlane North Dakota South FIPS 3302 Feet Vertical Datum: North American 1983
H:\Fargo\JBN\7400\74381\3_7438_015\Minnesota Dam Safety Permit\GIS\OverallAlignmentMap_030718.mxd

Comment 17

From:	Brenton Holper
To:	MN_Review, Environmental (DNR)
Cc:	Kory Peterson
Subject:	Fargo-Moorhead Flood Risk Management Project SEIS
Date:	Friday, June 08, 2018 10:52:56 AM
Attachments:	FM Diversion SEIS Comments - City of Horace ND.pdf Attachment #6 - MetroCOG Resolution.pdf Attachment #1 Horace Future Land Use Map.pdf Attachment #2 Fargo Future Land Use Map.pdf Attachment #3 - Cass County Resolution.pdf Attachment #4 - Fargo Resolution.pdf Attachment #5 - Horace Resolution.pdf

---

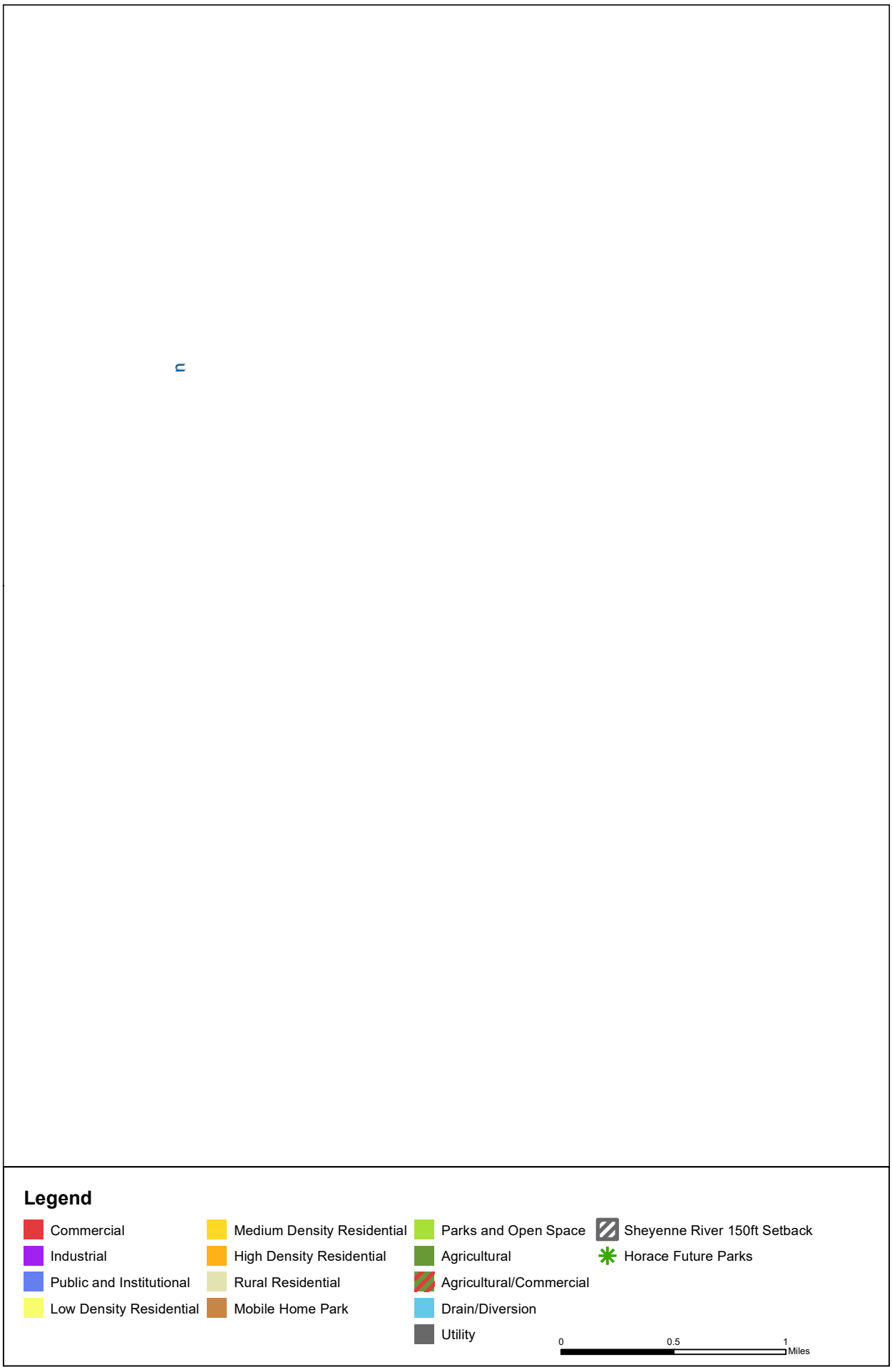
Mrs. Townley,

Please see attached letter and supporting documentation for comments regarding the Fargo-Moorhead Flood Risk Management Project SEIS from the City of Horace, ND. These comments with attachments have also been sent via certified mailed and should be received by the 11th.

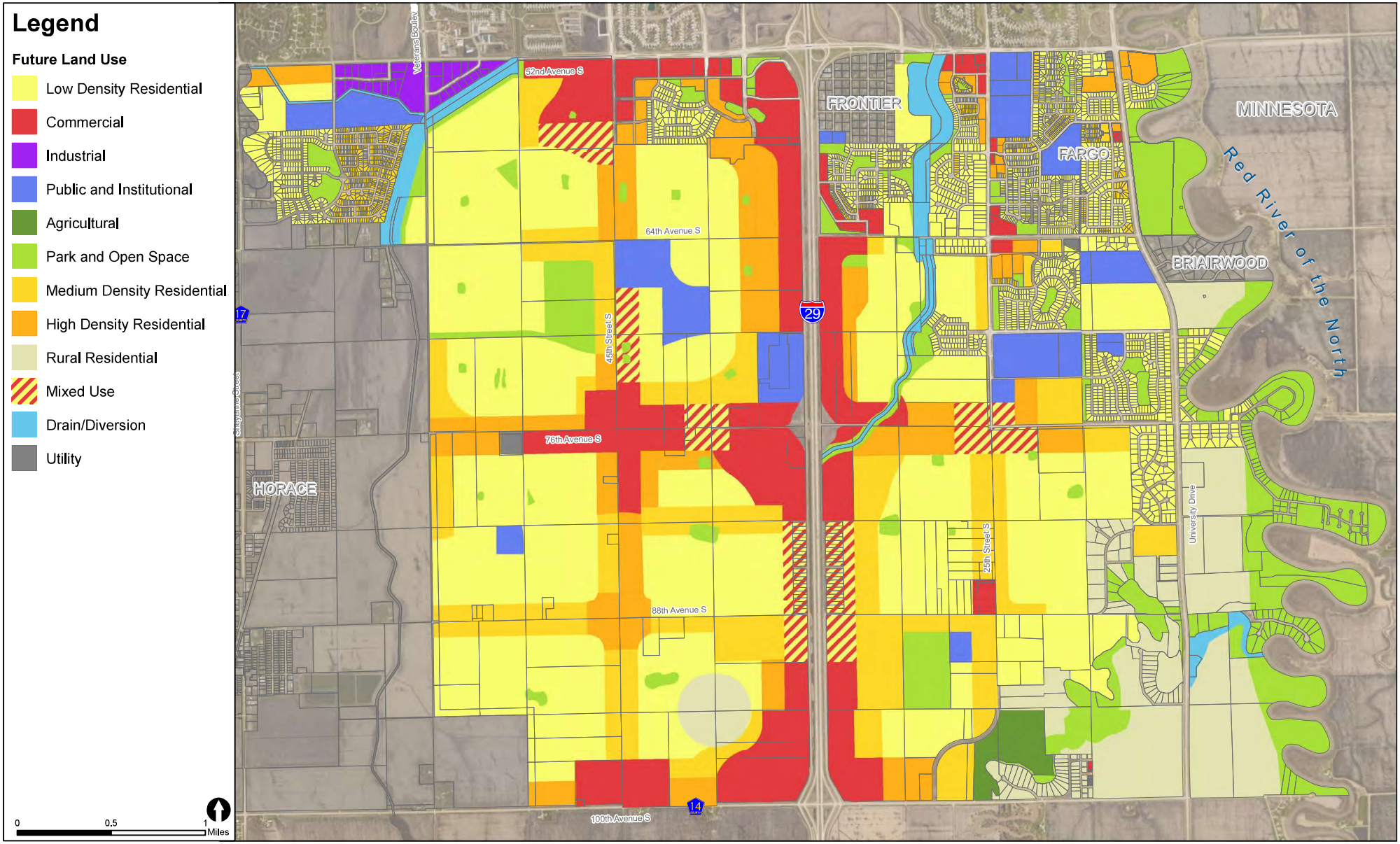
Commenter – Kory Peterson, Mayor – City of Horace, North Dakota
Mailing Address – 215 Park Dr. E., PO Box 99, Horace, ND 58047

Thank you.

Brenton Holper
City Administrator – City of Horace



Horace Preferred Future Land Use Plan **Figure 5.2**



Fargo Preferred Future Land Use Plan Update **Figure 5.1**

Attachment #2

Resolution to Adopt the Southwest Metro Transportation Plan

WHEREAS, the Board of Commissioners is the duly elected governing body for Cass County and is responsible for the planning and development of a safe and functional transportation system;

WHEREAS, the Fargo-Moorhead Metropolitan Council of Governments (Metro COG), as the metropolitan planning organization designated by the Governors of North Dakota and Minnesota to maintain the metropolitan area's transportation planning process in accordance with federal regulations, has completed the Southwest Metropolitan Transportation Plan, which is a vital piece of this planning process;

WHEREAS, the Southwest Metro Transportation Plan provides a comprehensive, coordinated program of projects and strategies that will improve the regional transportation system in the Fargo-Moorhead metropolitan region as the southern growth area continues to urbanize;

WHEREAS, the contents herein are consistent with those of the Long Range Transportation Plan, Metro 2040;

WHEREAS, the planning process was guided by the Study Review Committee (SRC) and the Metro COG Transportation Technical Committee (TTC), composed of a wide cross-section of local multi-modal technical experts including engineers, planners, transit administrators, and state and federal transportation officials;

WHEREAS, public and private organizations representing numerous transportation interests, as well as groups and individuals from socially disadvantaged populations were invited, encouraged, and involved in this Plan's preparation in full compliance with Metro COG's Public Participation Plan;

Now, Therefore Be It Resolved that Cass County does hereby adopt the Southwest Metro Transportation Plan and agrees to use it as a tool to implement metropolitan transportation goals and objectives, which will complement overall development of the metropolitan transportation system;

Approved and adopted this 4th day of April, 2016

Approved by:

Mary Scherling Chair

Attest:

Michael Montplaisir County Auditor

Resolution to Adopt the Southwest Metro Transportation Plan

WHEREAS, the City Commission is the duly elected governing body for the City of Fargo and is responsible for the planning and development of a safe and functional transportation system;

WHEREAS, the Fargo-Moorhead Metropolitan Council of Governments (Metro COG), as the metropolitan planning organization designated by the Governors of North Dakota and Minnesota to maintain the metropolitan area's transportation planning process in accordance with federal regulations, has completed the Southwest Metropolitan Transportation Plan, which is a vital piece of this planning process;

WHEREAS, the Southwest Metro Transportation Plan provides a comprehensive, coordinated program of projects and strategies that will improve the regional transportation system in the Fargo-Moorhead metropolitan region as the southern growth area continues to urbanize;

WHEREAS, the contents herein are consistent with those of the Long Range Transportation Plan, Metro 2040;

WHEREAS, the planning process was guided by the Study Review Committee (SRC) and the Metro COG Transportation Technical Committee (TTC), composed of a wide cross-section of local multi-modal technical experts including engineers, planners, transit administrators, and state and federal transportation officials;

WHEREAS, public and private organizations representing numerous transportation interests, as well as groups and individuals from socially disadvantaged populations were invited, encouraged, and involved in this Plan's preparation in full compliance with Metro COG's Public Participation Plan;

Now, Therefore Be It Resolved the City of Fargo does hereby adopt the Southwest Metro Transportation Plan and agrees to use it as a tool to implement metropolitan transportation goals and objectives, which will complement overall development of the metropolitan transportation system;

Approved and adopted this 14 day of March, 2016

Approved by:

Tim Mahoney Mayor

Attest:

Steve Spague City Auditor

Resolution to Adopt the Southwest Metro Transportation Plan

WHEREAS, the City Council is the duly elected governing body for the City of Horace and is responsible for the planning and development of a safe and functional transportation system;

WHEREAS, the Fargo-Moorhead Metropolitan Council of Governments (Metro COG), as the metropolitan planning organization designated by the Governors of North Dakota and Minnesota to maintain the metropolitan area's transportation planning process in accordance with federal regulations, has completed the Southwest Metropolitan Transportation Plan, which is a vital piece of this planning process;

WHEREAS, the Southwest Metro Transportation Plan provides a comprehensive, coordinated program of projects and strategies that will improve the regional transportation system in the Fargo-Moorhead metropolitan region as the southern growth area continues to urbanize;

WHEREAS, the contents herein are consistent with those of the Long Range Transportation Plan, Metro 2040;

WHEREAS, the planning process was guided by the Study Review Committee (SRC) and the Metro COG Transportation Technical Committee (TTC), composed of a wide cross-section of local multi-modal technical experts including engineers, planners, transit administrators, and state and federal transportation officials;

WHEREAS, public and private organizations representing numerous transportation interests, as well as groups and individuals from socially disadvantaged populations were invited, encouraged, and involved in this Plan's preparation in full compliance with Metro COG's Public Participation Plan;

Now, Therefore Be It Resolved the City of Horace does hereby adopt the Southwest Metro Transportation Plan and agrees to use it as a tool to implement metropolitan transportation goals and objectives, which will complement overall development of the metropolitan transportation system;

Approved and adopted this 2nd day of May, 2016

Approved by:

Shane Walock Mayor

Attest:

Vance Kemmer City Auditor

Resolution to Adopt the Southwest Metro Transportation Plan

WHEREAS, the Policy Board is the duly appointed governing body for the Fargo-Moorhead Metropolitan Council of Governments and is responsible for the planning and development of a safe and functional transportation system;

WHEREAS, the Fargo-Moorhead Metropolitan Council of Governments, as the metropolitan planning organization designated by the Governors of North Dakota and Minnesota to maintain the metropolitan area's transportation planning process in accordance with federal regulations, has completed the Southwest Metropolitan Transportation Plan, which is a vital piece of this planning process;

WHEREAS, the Southwest Metro Transportation Plan provides a comprehensive, coordinated program of projects and strategies that will improve the regional transportation system in the Fargo-Moorhead metropolitan region as the southern growth area continues to urbanize;

WHEREAS, the contents herein are consistent with those of the Long Range Transportation Plan, Metro 2040;

WHEREAS, the planning process was guided by the Study Review Committee (SRC) and the Metro COG Transportation Technical Committee (TTC), composed of a wide cross-section of local multi-modal technical experts including engineers, planners, transit administrators, and state and federal transportation officials;

WHEREAS, public and private organizations representing numerous transportation interests, as well as groups and individuals from socially disadvantaged populations were invited, encouraged, and involved in this Plan's preparation in full compliance with Metro COG's Public Participation Plan;

Now, Therefore Be It Resolved the Fargo-Moorhead Metropolitan Council of Governments Policy Board does hereby adopt the Southwest Metro Transportation Plan and agrees to use it as a tool to implement metropolitan transportation goals and objectives, which will complement overall development of the metropolitan transportation system;

Approved and adopted this 19 day of MAY, 2016

Approved by: _____

Dave Piepkorn Policy Board Chair

Attest: _____

William A. Christian Executive Director

CITY OF HORACE
FOUNDED 1882

It's Happening in Horace

Jill Townley, Project Manager
Box 25
Ecological and Water Resources Division
Minnesota Department of Natural Resources
500 Lafayette Road
St. Paul, MN 55155-4025

June 8, 2018

Dear Mrs. Townley,

I'm writing in response to the Public Comment Period for the Fargo-Moorhead Flood Risk Management Supplemental Environmental Impact Statement (SEIS) Preparation Notice. The City of Horace has previously expressed concerns regarding the most recent southern alignment Plan B of the Fargo-Moorhead diversion (in referring to the permit application submitted on March 16, 2018 for Plan B), where the City's stance of opposition to the most recent alignment remains the same.

In reviewing the SEIS Preparation Notice, there are some significant concerns and oversights included in this documents scope. Resulting in negative impacts on the City of Horace's economic future. This is found under section 4, part xi – Socioeconomic, which states "The socioeconomic section will not include a reevaluation of the cost-benefit analysis, regional impact, and demographic analysis. This section will include an evaluation of impacts to structures, organic farms and cemeteries…". The City of Horace is requesting that the SEIS expands the scope to address the cost-benefit analysis and regional economic impacts to include the City of Horace. Also, failure to look at the economic loses is an oversight that should not occur on project that has such impacts on the City of Horace and the entire region. 17a

In review of various plans and studies performed by the City of Horace and regional entities such as the Fargo-Moorhead Metropolitan Council of Governments (MetroCOG), the future land use of 100th Ave. S. (County Road 14) reflects the City's economic future along this corridor as primarily commercial and industrial. See *attachment 1 and 2* for a copy of the adopted Future Land Use Map for the City of Horace and City of Fargo (as reflected and approved in the Southwest Metro Transportation Plan). Activity regarding the growth of commercial and industrial in this area over the past 10 years has become more visible throughout the City of Horace and City of Fargo along the 100th Ave. S. (CR-14) corridor. The City

anticipates and encourages this pattern of commercial and industrial development to continue occurring on both the North and South sides of 100th Ave. (CR-14) due to it being the only corridor from Horace to I-29 with an interchange. Rezoning of parcels along 100th Ave. near CR-17 has recently occurred, spurring additional interest in this corridor.

This corridor is the primary East/West corridor for the City and only connection to I-29. In addition, future land use maps for both Horace and Fargo are included in the Southwest Metro Transportation Study. This was plan and the maps were adopted through resolution by both City's and MetroCOG *(See attachments 3-6)*.

The City has also been told there is a ¼ mile setback from the embankment. With the embankment being in place on the Plan B alignment south of 100th Ave. S. (CR-14), we are concerned about the limitations of this corridor. The City followed the process of the Governor's Task Force that was used to develop the new alignment. The council reviewed the impact this change will have on the City. We understand that once a southern embankment is agreed upon, it will be there in perpetuity. For that reason, the City has a vested interest in the location of that alignment.

In addition, we question the safety aspect of locating this embankment immediately adjacent to our current developed area. In attending Governor Dayton's and Burgum's Task Force, the concept to limit impacts upstream was sound but we have heard nothing to give the impression this would come at the cost of making it riskier for the already developed areas.

The City of Horace would like to go on record again as opposing the Plan B alignment as it puts undue burden on the City of Horace and it's residents, hinders the City's future economy, and our current plans along 100th Ave. S. (CR-14) and would recommend the alignment of the southern embankment to be moved further south to allow for smart growth along this major corridor. In addition, the City of Horace is requesting that the SEIS expands the scope to address the cost-benefit analysis and regional economic impacts. 17b

If you have any questions about this letter, please call me at 701-936-3585.

Thank you for your time,

Kory Peterson
Mayor of Horace, North Dakota

CC: Doug Burgum, State of North Dakota Governor
Mark Dayton, State of Minnesota Governor
Tim Mahoney, Mayor City of Fargo, North Dakota
Tom Landwehr, Minnesota Department of Natural Resources Commissioner

Attachments:

Attachment #1: *Future Land Use Map – City of Horace (from the Southwest Metro Transportation Plan)*

Attachment #2: *Future Lane Use Map – City of Fargo (from the Southwest Metro Transportation Plan)*

Attachment #3*: Cass County Resolution to Adopt the Southwest Metro Transportation Plan*

Attachment #4: *City of Fargo Resolution to Adopt the Southwest Metro Transportation Plan*

Attachment #5: *City of Horace Resolution to Adopt the Southwest Metro Transportation Plan*

Attachment #6: *Fargo-Moorhead Metropolitan Council of Governments Resolution to Adopt the Southwest Metro Transportation Plan*

Comment 18

From: Kristy Olsgaard
To: MN_Review, Environmental (DNR)
Subject: Fargo-Moorhead Flood Risk Management Project SEIS
Date: Friday, June 08, 2018 11:00:17 AM

To Minnesota DNR Project Manager Jill Townley,

As a fifth generation farm in southern Clay and northern Wilken counties, we have spent about ten years battling the FM Diversion Authority's proposal to provide flood protection to Fargo. But the thinly veiled purpose is to develop land currently in the natural flood plain around Fargo.

It's a lot to ask people, some like us with over 100 years of land ownership, to simply agree to a plan that puts their livelihoods at stake. When my great grandfathers settled in these counties, they chose high ground. Our farm never floods. One yard built on the Red River is always dry. But we are concerned that this project could accelerate riverbank degradation causing loss of farmable acres. **18a**

The only acceptable plan is for Fargo to handle their situation in their state without any adverse affect on Minnesota law-abiding, tax-paying citizens.

Is it too much to ask that this merry-go-round land grabbing project be shut down so the citizens south of Moorhead can once again sleep without the constant nightmare of losing their way of life?

Thanks for your consideration.

Kevin and Kristy Olsgaard
Nick Olsgaard
Minnesota Century Farm, Established in 1895
11549 40th St. S.
Moorhead, MN 56560

Comment 19

From: Ben Hanson
To: MN_Review, Environmental (DNR)
Subject: Fargo-Moorhead SEIS
Date: Friday, June 08, 2018 12:22:10 PM

As a Fargo resident who has been doing business in both North Dakota and Minnesota as a real estate agent and broker I would like to voice my support for the F-M Area Diversion Project. It is vital our area and both residential and commercial properties' values are protected from an event like the ones in 1997 and 2009. 19a

Additionally this completion will help eliminate flood insurance premiums which are always at risk of sharply increasing if the federal government does not continue to renew the program at its current rate. This would be boon to property values on both sides of the Red River and needs to happen as soon as possible. The time for talk has passed.

Ben Hanson
3270 20th St. S
Fargo, ND 58104

--
-Ben Hanson

Commercial Real Estate Broker & Property Manager
Archer Real Estate & Archer Commercial Property Management
Office: 701.356.5099 Fax: 701.356.5066

Comment 20

From:	Don Nelson
To:	MN_Review, Environmental (DNR); Don Nelson
Subject:	Fargo-Moorhead SEIS
Date:	Friday, June 08, 2018 8:46:33 PM
Attachments:	2009-03-28-Comstock-vs-1929-1988-Vertical-Datum.png Comstock-MN-Cross-Section-E-W.png

Below are my comments on the Fargo-Moorhead Flood Risk Management Project SEIS Final Preparation Notice.

First, I must address some very false information that seems to be going around regarding the land west of Hwy 75 on the MN side of the river. There was a comment made in the Flood Diversion Task Force Final Report that is completely false and needs to be corrected.
Jenny Mongeau stated that:
"My proposal is to engineer US Highway 75 to the standards of what the Eastern tieback would be, make it the tieback levy.
The Army Corps had stated that levies could be used in this capacity. By doing this the land between the road and the Red River could be used as staging,
the vast majority of that land is currently susceptible to flooding due to its proximity to the river."

Ok, here is the truth. With the exception of the few draws that land West of Hwy 75 that would be in the proposed staging area in MN has never flooded. It was all high and dry in both 1997 and 2009 floods which are the largest floods recorded. Virtually all of this land is above the 100 year floodplain.
The two attached documents show clearly that this land in MN does not flood. The picture is looking East with Comstock, MN in the background. It is from the peak of the 2009 flood. The water on the road on MN side ends just past the bridge and it never came over the banks on MN side. The water on the ND side extends well past where the new Oxbow dike has been built in the floodway. If the water came up it would extend for miles into ND before it ended up in MN. Jenny was made aware of her incorrect statement but I don't believe she ever submitted a correction to it.

The biggest and completely unacceptable issue with this Plan B is that it removes all the water from the floodplain of ND and places that water in MN on high ground that has never flooded and will not flood as long as a dam is not built on the Red River to hold back water. This proposed design of flooding MN land that is out of the floodplain with ND water from the ND floodplain cannot be acceptable to MN. This is devastating to MN. If the plan was allowed then all the houses and structures in the staging area would have to be torn down and we could never build on our high MN ground for eternity. This is not acceptable. **20 a**

Comment regarding the 37 feet through town:
There is absolutely no reason to hold back water in a proposed staging area so that only 37

feet runs through town. A 37 foot river stage is fairly insignificant to Fargo/Moorhead. With the in-town clay dikes at a height of 44 and the permanent flood walls at a height of 45, only having 37 feet go through town is ridiculous. There is no reason to have 8 feet of freeboard. Sure there are some gaps in the dike through town because a few people didn't take the buyout but that doesn't mean that you flood everyone south of town that is on high ground above the 100 year floodplain.

Comment regarding the 100 year/33,000 cfs:
With the level of protection agreed to be for the 100 year at 33,000 cfs it puts the river stage just over 41 feet. That still leaves 3 to 4 feet of freeboard with current protection levels in Fargo/Moorhead. If Fargo wanted protection above and beyond that it could be accomplished by diverting only the Wild Rice on the ND side of the river. Also, by diverting only the Wild Rice it would keep all the impacts in ND and out of MN. In 2009, 50% of the flow through town was coming from the Wild Rice so it is a major contributor. If it had to have a staging area it could all be contained in ND West of Interstate 29. This should be looked at in Section 3 B xiii. **20 b**

Section 3 A ii:
The top elevation of the Dam/Southern Embankment is almost exactly the same height as the previous plan. With it being at a height of 929 it would be constructed to handle a 500+ year flood just like the old plan. With the agreement of 100 year protection this Dam/Southern Embankment is not needed.

Section 3 A iii:
If the Red River Control Structure was to have three 50 foot wide gates there would be a severe issue with Ice Jams at that location. I watched in 2009 as massive chunks of ice floated down the river that were much larger than that. There is no way they would have made it through the gates and if that was to happen there would be a major backup of water causing impacts much further into MN. **20 c**

Section 3 A v:
States that the deeper portions of the Staging Area will be regulated as a floodway so that the required volume is maintained. The fact that a new golf course hole for Oxbow was allowed to be constructed in the floodway and then a dike constructed in the floodway to protect this new golf hole is insane. That southeast corner of the Oxbow dike built down in the floodway needs to be removed and pushed back up to the top of the previous natural grade of the land. If allowed to be left as it is constructed down in the floodway it will be causing MN impacts for eternity. **20 d**

Section 3 A vi:
Where it states that stages would rise above 40.0 feet at the Fargo gage resulting in flooding

of the Fargo-Moorhead urban area is completely false. Fargo does NOT flood at 40 feet. We went through 2009 with temporary dikes and handled a flood of height 40.82. Now there are permanent dikes where those temporary dikes were and at a higher height of 44 and 45 feet.

Section 3 B v:
Need to address the issue of Fish Stranding in the proposed staging area as the water was to go down.
Also need to address the issue of Wildlife stranding and dying in the proposed staging area. **20 e**

Section 3 B vii:
Need to address all the Historical Structures and Historical Sites in the proposed staging area. There are several on the MN side alone in the proposed staging area. **20 f**

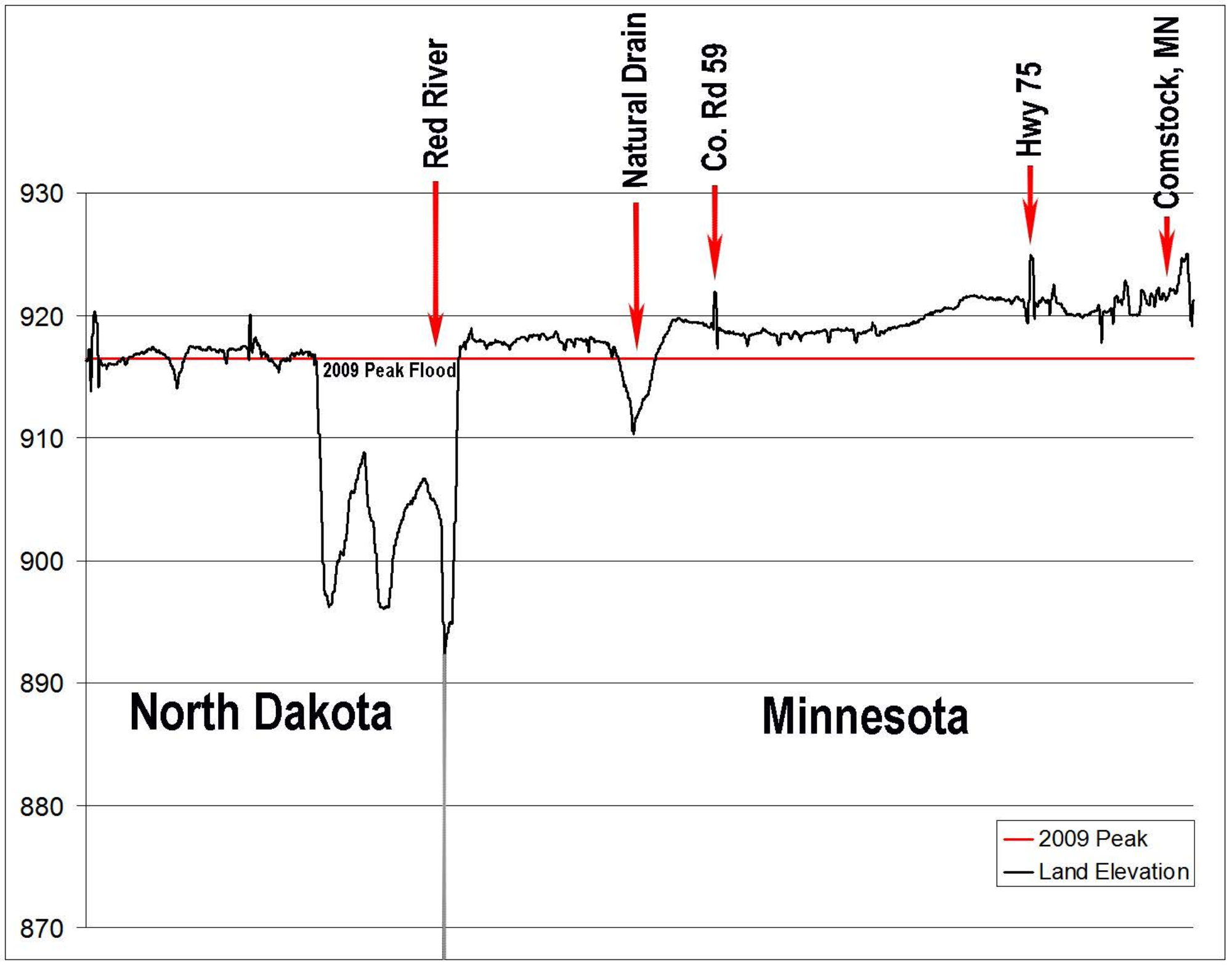
Section 3 B xiv:
There is no amount of mitigation or any amount of money that could possibly offset the devastating impact of a staging area on MN high ground that is naturally above the 100 year floodplain. **20 g**

The map showing Diversion Project Plan B has the Southern Embankment along Hwy 75 stopping at the Clay/Wilkin County line. During the presentation of this plan in Comstock, MN it was admitted by the Diversion Authority representatives that the water would extend much further than what the map is currently showing. They said because of this the Southern Embankment would have to either continue on into Wilkin County or it would have to run East and West on the Clay/Wilkin County line. Because of this, that map is certainly not accurate and is not showing the impacts that they have admitted to that will continue into Wilkin County. All the red dots showing on that map are stating Non-Residential structures. That is completely false. There are many Residential structures in there that are not accounted for. **20 h**

In the end, this proposed project and any proposed project that proposes to have a staging area in MN needs to be stopped. Flooding the high ground in MN for the benefit of draining ND Floodplain for development purposes is not acceptable to MN in any way. The stress that this proposed project has brought to people for many years and continues to bring to people needs to stop so that people can move on with their life. This proposed project is completely corrupt and beyond unethical. **20 i**

Thanks,
Don Nelson
5086 130th Ave. South
Moorhead, MN
Home: 218-585-4550
Cell: 701-793-0751


Comstock, MN
Red River Crest
2009-03-28: 39.04 ft (916.47 ft) 1929 NGVD
2009-03-28: 39.04 ft (917.04 ft) 1988 NAVD


Red River
Natural Drain
Co. Rd 59
Hwy 75
Comstock, MN
930
920
910
900
890
880
870
2009 Peak Flood
North Dakota
Minnesota
2009 Peak
Land Elevation

Comment 21

Cass Rural Water Users District

BOX 98 ● 131 MAPLE STREET
KINDRED, NORTH DAKOTA 58051
PHONE: 701-428-3139 ● TOLL FREE: 800-922-2798
FAX: 701-428-3130
www.cassruralwater.com

October 28, 2015

Jill Townley, Project Manager
Environmental Policy and Review Unit, Box 25
Ecological and Water Resources Division, DNR
500 Lafayette Road, St. Paul, Minnesota, 55155-4025

RE: Supplement to Environmental Impact Statement – FM Diversion Project

Dear Ms. Townley:

Cass Rural Water District (District) is a water utility that serves nearly 5,500 residential customers primarily in Cass County. About one half of our customer base is concentrated in and around the Fargo Metro area. The balance of our customers are spread throughout the remainder of Cass County. In addition to the residential customer base we also provide bulk service to 13 communities. Bulk service requires us to deliver water to a single metering point and the municipality then operates their own distribution and billing systems. The communities we serve in this manner are Casselton, Mapleton, Davenport, Kindred, Buffalo, Author, Hunter, Page, Grandin, Gardner, Tower City, Argusville, Amenia and Woodlawn. In total we serve a population of nearly 20,000 people.

As of this time the District's Board of Directors has taken no public position on the F-M Diversion Project. They have remained neutral simply because we have a significant number of our customer base that are both in favor of and opposed to the project. The primary concern of the District's Board is to make certain that any facility relocations required as a result of the F-M Diversion are kept to a minimum and that we are properly compensated for the cost of any relocation work.

The District operates three water treatment plants located near Page, Leonard and St. Benedict, North Dakota. The water treatment plant near St. Benedict (Phase 1 Plant) is located immediately south of Cass County Road 16 about one mile west of Interstate 29. In addition the District operates a water transmission and distribution system which includes two thousand miles of pipeline as well as 14 ground storage reservoirs and associated pumping stations.

We have reviewed the Supplement to Environmental Impact Statement (SEIS) Final Preparation Notice and have the following comment.

1. **Section 3.A. – Scope of Supplement - Alternatives** - This part of the SEIS discusses the alternative commonly referred to as "Plan B". Plan B puts our water treatment plant on the wet side of the dam. Due to the water level at this site during a flood event there is not feasible way to protect this facility from flood waters. Consequently, a new treatment plant would need to be built somewhere on the dry side of the dam. We estimate the cost

to build a replacement plant to be nearly $14,000,000 which would be an additional cost to the overall diversion project. I have attached an exhibit of the estimated cost for your review.

Sincerely,

Jerry Blomeke
General Manager
Cass Rural Water District

EXHIBIT I

Cass Rural Water System
Phase 1 Water Treatment Plant Relocation

Item		Estimated Cost	Total Estimated Cost
Reservoir 'A' WTP Relocation			
	Pressure Filter Procurement	$ 600,000.00	
	Land Purchase	$ 250,000.00	
	New Water Treatment Plant (1,000gpm)	$ 7,875,000.00	
	System 1 Wellfield Relocation	$ 1,430,000.00	
	Subtotal Construction	**$ 10,155,000.00**	
	Contingencies @ 10%	$ 1,015,500.00	
	Total Construction	**$ 11,170,500.00**	
	Administration, Legal, and Engineering @ 25%	$ 2,792,625.00	
	Subtotal Other Project Costs	**$ 2,792,625.00**	
	Total Estimated Costs		**$ 13,963,125.00**

Cass Rural Water
Reservoir A WTP Relocation - Equipment Inventory List

WATER TREATMENT PLANT

Process Equipment

Contact Tank

BFV-101	Raw Water Isolation Butterfly Valve
FM-102	Raw Water Flow Meter
BFV-103	Pressure Vessel/Contact Tank Inlet Isolation Butterfly Valve
TNK-104	Pressure Vessel/Contact Tank - 10 Min Contact Time
CAV-105	Pressure Vessel/Contact Tank Combination Air Valve
BFV-106	Pressure Vessel/Contact Tank By-Pass Butterfly Valve
BFV-107	Pressure Vessel/Contact Tank Outlet Isolation Butterfly Valve

Pressure Filters

BFV-200	Pressure Vessel Filter No. 1 Influent Air-Operated Butterfly Valve
BFV-201	Pressure Vessel Filter No. 1 Backwash-To-Waste Air-Operated Butterfly Valve
BFV-202	Pressure Vessel Filter No. 1 Filtered Water Air-Operated Butterfly Valve
BFV-203	Pressure Vessel Filter No. 1 Backwash Influent Air-Operated Butterfly Valve
BFV-204	Pressure Vessel Filter No. 1 Airwash Influent Air-Operated Butterfly Valve
TNK-205	Pressure Vessel Filter No. 1
CAV-206	Pressure Vessel Filter No. 1 Combination Air Valve
FM-207	Pressure Vessel Filter No. 1 Filter Effluent Flow Meter
BFV-210	Pressure Vessel Filter No. 2 Influent Air-Operated Butterfly Valve
BFV-211	Pressure Vessel Filter No. 2 Backwash-To-Waste Air-Operated Butterfly Valve
BFV-212	Pressure Vessel Filter No. 2 Filtered Water Air-Operated Butterfly Valve
BFV-213	Pressure Vessel Filter No. 2 Backwash Influent Air-Operated Butterfly Valve
BFV-214	Pressure Vessel Filter No. 2 Airwash Influent Air-Operated Butterfly Valve
TNK-215	Pressure Vessel Filter No. 2
CAV-216	Pressure Vessel Filter No. 2 Combination Air Valve
FM-217	Pressure Vessel Filter No. 2 Filter Effluent Flow Meter
BFV-220	Pressure Vessel Filter No. 3 Influent Air-Operated Butterfly Valve
BFV-221	Pressure Vessel Filter No. 3 Backwash-To-Waste Air-Operated Butterfly Valve
BFV-222	Pressure Vessel Filter No. 3 Filtered Water Air-Operated Butterfly Valve
BFV-223	Pressure Vessel Filter No. 3 Backwash Influent Air-Operated Butterfly Valve
BFV-224	Pressure Vessel Filter No. 3 Airwash Influent Air-Operated Butterfly Valve
TNK-225	Pressure Vessel Filter No. 3
CAV-226	Pressure Vessel Filter No. 3 Combination Air Valve
FM-227	Pressure Vessel Filter No. 3 Filter Effluent Flow
BFV-230	Pressure Vessel Filters Common Filter-To-Waste Air-Operated Butterfly Valve
AB-231	Pressure Vessel Filters Common Airwash Blower - 15 HP
AFM-232	Pressure Vesseel Filter Common Airwash Flow Meter

Backwash Pumps

BWP-300	Vertical Turbine Backwash Pump No. 1 - 20 HP
CAV-301	Backwash Pump No. 1 Combination Air Valve
PIPS-302	Backwash Pump No. 1 Pressure Indicator and Pressure Switch
CV-303	Backwash Pump No. 1 Check Valve
BFV-304	Backwash Pump No. 1 Isolation Butterfly Valve
BWP-310	Vertical Turbine Backwash Pump No. 2 - 20 HP
CAV-311	Backwash Pump No. 2 Combination Air Valve
PIPS-312	Backwash Pump No. 2 Pressure Indicator and Pressure Switch
CV-313	Backwash Pump No. 2 Check Valve
BFV-314	Backwash Pump No. 2 Isolation Butterfly Valve
FM-320	Backwash Flow Meter

<u>High Service Pumps</u>

BWP-400	Vertical Turbine High Service Pump No. 1 - 50 HP
CAV-401	High Service Pump No. 1 Combination Air Valve
PIPS-402	High Service Pump No. 1 Pressure Indicator and Pressure Switch
CV-403	High Service Pump No. 1 Check Valve
BFV-404	High Service Pump No. 1 Isolation Butterfly Valve
BWP-410	Vertical Turbine High Service Pump No. 2 - 50 HP
CAV-411	High Service Pump No. 2 Combination Air Valve
PIPS-412	High Service Pump No. 2 Pressure Indicator and Pressure Switch
CV-413	High Service Pump No. 2 Check Valve
BFV-414	High Service Pump No. 2 Isolation Butterfly Valve
BWP-420	Vertical Turbine High Service Pump No. 3 - 15 HP
CAV-421	High Service Pump No. 3 Combination Air Valve
PIPS-422	High Service Pump No. 3 Pressure Indicator and Pressure Switch
CV-423	High Service Pump No. 3 Check Valve
BFV-424	High Service Pump No. 3 Isolation Butterfly Valve
FM-400	High Service Flow Meter
BFV-401	High Service Isolation Valve

<u>Chemical Feed Systems</u>

TNK-500	Sodium Permanganate Bulk Tank
CTSP-501	Sodium Permanganate Trasfer Pump
TNK-502	Sodium Permanganate Day Tank
SCL-503	Sodium Permanganate Day Tank Scale
FD-504	Sodium Permanganate Peristaltic Metering Pump
CLF-510	Pre-Chlorination Free Chlorine Feed System
CLF-511	Disinfection Free Chlorine Feed System
TNK-520	Clearitas Bulk Tank
CTSP-521	Clearitas Trasfer Pump

TNK-522	Clearitas Day Tank
SCL-523	Clearitas Day Tank Scale
FD-524	Clearitas Peristaltic Metering Pump
TNK-530	Fluoride Bulk Tank
CTSP-531	Fluoride Trasfer Pump
TNK-532	Fluoride Day Tank
SCL-533	Fluoride Day Tank Scale
FD-534	Fluoride Peristaltic Metering Pump
TNK-540	Polyphosphate Bulk Tank
CTSP-541	Polyphosphate Trasfer Pump
TNK-542	Polyphosphate Day Tank
SCL-543	Polyphosphate Day Tank Scale
FD-544	Fluoride Peristaltic Metering Pump

Mechanical

CAS-1	Compressed Air System
AHU-1	Air Handling Unit - Cooling/Dehumidification/Heating
AHU-2	Air Handling Unit - Mini-Split System (Indoor)
CU-1	Condensing Unit
	Ceiling Fan
	Water Heater
	Emergency Shower

Electrical

VFD-1	Backwash Pump No. 1 Variable Frequency Drive - 20 HP
VFD-2	Backwash Pump No. 2 Variable Frequency Drive - 20 HP
VFD-3	High Service Pump No. 1 Variable Frequency Drive - 50 HP
VFD-4	High Service Pump No. 2 Variable Frequency Drive - 50 HP
VFD-5	High Service Pump No. 3 Variable Frequency Drive - 15 HP
GEN	Emergency Generator - 750 KW, 480-V, 3-Phase
ATS	Automatic Transfer Switch - 1200 AMP, 3-Phase
MDP-1	Main Distribution Panel
	Electric Unit Heaters
	Transformer
	Distribution Panels

Comment 22

From:	Townley, Jill (DNR)
To:	Novak-Krebs, Cynthia (DNR)
Subject:	FW: SEIS Response
Date:	Saturday, June 09, 2018 5:42:41 PM
Attachments:	SEIS 9 June 2018 Response.docx image001.png image002.png image003.png image004.png

---

Here's a comment letter to add.

Jill Townley
Planner Principal / 2018 Legislative Coordinator | Communications and Planning Unit

Minnesota Department of Natural Resources
500 Lafayette Road, Box 25
St. Paul, MN 55155
Phone: 651-259-5168
Fax: 651-296-1811
Email: jill.townley@state.mn.us
mndnr.gov

From: Larry Luick <luick@rrt.net>
Sent: Saturday, June 9, 2018 5:04 PM
To: Townley, Jill (DNR) <jill.townley@state.mn.us>
Subject: FW: SEIS Response

NORTH DAKOTA SENATE

STATE CAPITOL
600 EAST BOULEVARD
BISMARCK, ND 58505-0360

Senator Larry Luick
District 25
17945 101st Street SE
Fairmount, ND 58030-9522
Residence: 701-474-5959
Business: 701-474-5959
lluick@nd.gov

COMMITTEES:
Agriculture
Judiciary

June 9th, 2018

Ms. Jill Townley
SEIS Project Manager
Minnesota DNR

Thank you for the opportunity to submit my comments on the Fargo Diversion SEIS. The staging area encompasses a large portion of the North Dakota legislative district I represent, and negatively impacts many of my constituents. I have reviewed the SEIS Final Preparation Notice and would like to make the following comments.

It is my job to look toward the future. Distribute storage holds the key to protecting the Red River Watershed from flooding. This proposal does nothing to move distributed storage, and sustainable flood plain management forward. I attended the technical committee discussions during the Governor's Task Force, and was encouraged that the project would be based on FEMA 100 year flood protection. It was stated by DNR officials that protection beyond the 100 year level must come from distributed storage. The Diversion Authority's proposal does not reflect that. The project design still contains a 20K channel when a much smaller channel is needed. If the protected flow rate is 33,000 cfs, the USGS rating curve for Fargo would suggest a channel capacity of 12K would be sufficient. Fargo will certainly seek a higher level of protection in the future, and any excess channel capacity in this project will be a deterrent to developing flood protection plans that include upstream and downstream areas. The cost of this project could also be reduced if the channel capacity were limited to the mandated 100 year protection. Those savings could be used to develop distributed storage sites upstream and downstream. Representatives of FEMA who addressed the Governor's Task Force meetings also stated that they would reduce the size of the floodplain in the valley as retention sites were developed and certified. This would reduce the impacts of the project on people I represent.

The second issue I would like to raise is the projected flood plain area that will be preserved inside the proposed diversion. When I look at the map provided with the SEIS materials, I see there is a large area still in the flood plain near the confluence of the Sheyenne and Red Rivers. The increase of in town flows to 37 feet is what is causing this to remain in the flood plain, which the Diversion Authority is claiming to be a benefit to this plan. I do not think that is likely to be the case. In paragraph 86 of the DNR Findings of Fact of the original proposal, the DNR evaluated growth patterns in regard to dam safety. It stated "When evaluating a dam safety permit application the DNR is required to evaluate the potential hazards of the dam in light of the existing and "probable future development of the area downstream or upstream" of the dam." This same principle should apply to the floodplain area that is being identified inside the diversion channel. There will be enormous pressure to develop all the areas inside the diversion as time moves forward. Fargo and Cass County will 22 a

undoubtedly develop a plan to raise the dikes along the Red and Sheyenne rivers north of town to allow building in these areas. To credit this flood plain as a preservation area would be short sighted.

There are many more issues; most were identified in the DNR's earlier Finding of Fact, that remain totally unresolved in the current plan. I trust that any proposal be required to resolve all those issues with a plan that truly addresses flooding from a regional perspective, consistent with sound flood plain management. 22 b

Thank you for your consideration,

North Dakota District 25 Senator Larry Luick
Senate Agriculture Committee Chairman

Comment 23

From:	Cash
To:	MN_Review, Environmental (DNR)
Subject:	"Fargo-Moorhead SEIS
Date:	Sunday, June 10, 2018 8:28:27 PM
Attachments:	Final Comments to Leadership Group, FM Diversion DNR.docx northern alignment alternative.pdf 7A - 10D[1304].pdf

---

Jill Townley
Minnesota Department of Natural Resources

Dear Ms. Townley:

I am submitting the attached three documents for my comments regarding the SEIS on the Fargo-Moorhead Area Diversion project.

The word document was previously submitted to Commissioner Landwehr following the meetings of the Army Corps, the FM Diversion Authority, and the Richland-Wilkin Joint Powers Authority hosted by the Commissioner in St. Paul and concluding on March 8, 2018. The two pdf files are maps I referenced in my comments.

Sincerely,

Cash Aaland
5555 171st Ave SE
Christine, ND 58015

Fargo Briarwood

Sabin

Horace

Red River

Cass County

Clay County

Rustad

Hickson

Bakke Oxbow

Comstock

Wild Rice ND

Wolverton

46

Drain 37

75

Red River

Richland County

Wilkin County

Christine

Wolverton

29

Walcott

Legend

Streams/Rivers

Project Area

Project Alignment

Project Staging Area

Northern Alignment

Northern Alignment Staging Area

Major Roads

County Boundary

Aerial Photograph (Source: ESRI)

0 0.75 1.5 3 Miles

N

Path: L:\1472\09\mxd\PreDraftEIS_Rev\Wenck Created\Proposed Project and Northern Alignment Staging Areas.mxd

Source: Es
AEX, Getm

FARGO-MOORHEAD FLOOD RISK MANAGEMENT PROJECT

Proposed Project and Northern Alignment Staging Areas

Created By: ShuJC0243 Date Created: 05/22/2015 Date Exported: 2/17/2016

Figure 7

Source: 2014 1202 Diversion Authority Northern_Alt_Staging_Area Shapefile;
2012 11 SEAW Figure 4 Project Features Shapefile.

Final Comments of Cash Aaland following the four meetings of representatives of the Richland-Wilkin JPA, the Army Corps of Engineers, and the FM Diversion Authority hosted by the Minnesota DNR in St. Paul, MN and concluding on March 8, 2018.

When the Minnesota DNR denied the FM Diversion Authority's Dam Safety and Work in Public Waters Permit Application in October of 2016, it did so for very specific reasons. Chief among them was that approximately 54% of the lands removed from flooding in the project's proposed 72,923 acre benefited area were "sparsely developed flood plain located outside of Fargo." (Para 36, 154 and 196, Dam Safety and Public Waters Permit Application 2016-0386, Findings of Fact, Conclusions and Order). The proposed high hazard dam, necessary only to mitigate downstream impacts caused by the destruction of so much flood plain storage, would have resulted in the inundation of approximately 20,000 acres of land that did not previously receive flood waters. (Para 34, Findings and Order). The plan: "simply shifts the burden of flooding from one sparsely developed rural area to another and, to this extent, is of minimal benefit to the public welfare."(Para 196, Findings and Order).

The DNR concluded that "[t]he review of the economic analysis and flood control benefits performed for the proposed project does not establish that the quantifiable benefits support the need for the project" as required by MN statute. (Para 137, Findings and Order). "Constructing a Class I (high hazard) dam is neither reasonable nor practical in light of the incremental increase of flood protection afforded to existing development in the F-M metro area." Id. The FM Diversion Authority failed to establish that its proposal represented the "minimal impact solution" with respect to all other reasonable alternatives as required by MN statute. (Para 85, 198, Findings and Order).

At nearly every meeting of the Fargo-Moorhead Area Flood Diversion Task Force Commissioner Landwehr cautioned everyone present that the "current" project was not permittable and that "major changes" must be made before a permit could be issued. The words "major changes" were repeated by Governor Dayton in his written statement in the Task Force Final Report and again by the Commissioner during the subsequent meetings held in St. Paul with leadership representatives from the Army Corps, the FM Diversion Authority and the Richland-Wilkin JPA.

The Richland-Wilkin JPA, having carefully noted the findings and comments contained in the order denying Fargo's permit application as well as the recommendations of hydrologist Charlie Anderson, proposed major modifications to the FM diversion footprint.

The JPA's proposal would reduce the size of the project from the 72,923 acre plan that was denied a permit, to a 49,000 acre plan that would leave unchanged the plan's specific features that protect the existing development in the FM Metro. (Para 154, Findings and Order). The JPA's proposal also allows a reasonable area for future growth. The northwest modification proposed by the JPA would preserve the flood plain of the Maple and Rush rivers northwest of the Metro area. By reducing the length of the diversion channel and moving it east, approximately 29,400 acres of sparsely developed flood plain would be excluded from the project footprint, maintaining its natural flood plain storage capacity. Existing development in this rural area would remain "as is" and not receive any additional waters. The JPA's proposal on the southern end of the project would move the dam a reasonable distance north preserving another 10,000 acres of rural flood plain. Charlie Anderson modeled, and the TAG

summary acknowledged, that the JPA's proposals would lower the staging area elevation by 5.4 feet to 916.2, wholly removing impacts from Richland and Wilkin Counties and greatly reducing Minnesota impacts in Clay County.

At the final leadership meeting on March 8, Kent Lokkesmoe acknowledged that if, in addition to the JPA's proposed modifications, another 6 inches of flow downstream was allowed as suggested in the Task Force Guidance for TAG, the result would reduce staging by another foot or more, wholly removing Oxbow Hickson Bakke from the staging area and potentially eliminating all the Minnesota impacts. The elevation of OHB is approximately 915 to 916.5. The new houses from the ring dike buyouts on the south side of the community are constructed to an elevation of 918.

The Army Corps and Diversion Authority went a different direction. In the press release circulated at the last Leadership meeting on March 8, and forwarded to the media the next day, Diversion Authority leaders announced their decision to seek a permit on Option 7A/10D. The Diversion Authority formally announced it would seek a permit on this alignment following a Diversion Authority board meeting held Friday, March 16. Option 7A is the alignment promoted by Diversion supporters at the December, 2017, final meeting of the Governor's Task Force, and for which Commissioner Landwehr indicated was not substantially different from the initial project to qualify for a Dam Safety permit. The initial project was objectionable primarily because it would permit development "in over 39,000 acres of sparsely developed natural floodplain on the outskirts of the F-M metropolitan area." (Para 160, Findings and Order).

Fargo's proposed Plan B, as outlined in the Diversion Authority's press release and the TAG documents reflecting the size and shape of 7A/10D, would actually *increase* the Diversion project from the 72,923 acre project that was denied a permit, to a 76,812 acre project with the dam located further south. (Para 36, 154 Findings and Order)(TAG spreadsheet: FM Diversion Project – Southern Embankment/Dam Option Comparison). The Northern Alignment Alternative, proposed for permit by the DA in their 2016 Dam Safety and Public Waters application, and upon which the DNR Denial Order was tied, proposed the dam and embankment be located *1.5 miles further north than that proposed by 7A10D*. I have attached two maps to illustrate this point. One shows the location the high hazard was proposed in the alignment that was denied permit. (Northern Alignment Alternative). The second depicts with a red line where the denied dam location was relative to Fargo's current 7A/10D proposal. (7A-10D).

The Governor's Task Force and the subsequent Leadership/TAG meetings held over the past six months created an opportunity for the FM Diversion Authority leadership to get feedback directly from the Minnesota DNR as to what a lawful and permittable project would look like. Following the conclusion of the Governor's Force, and at the first of four "leadership group" meetings in St. Paul, the Commissioner outlined a procedure whereby, after the various options were studied and discussed, the DNR leadership would provide a good indication of whether any of the TAG vetted alignments might pass the statutory hurdles allowing the issuance of a Dam Safety permit. Indeed, the whole purpose of the meetings, and the reason for the DNR dedicating substantial time and resources, was to provide the Diversion leaders this feedback at the end of the process at the March 8 meeting.

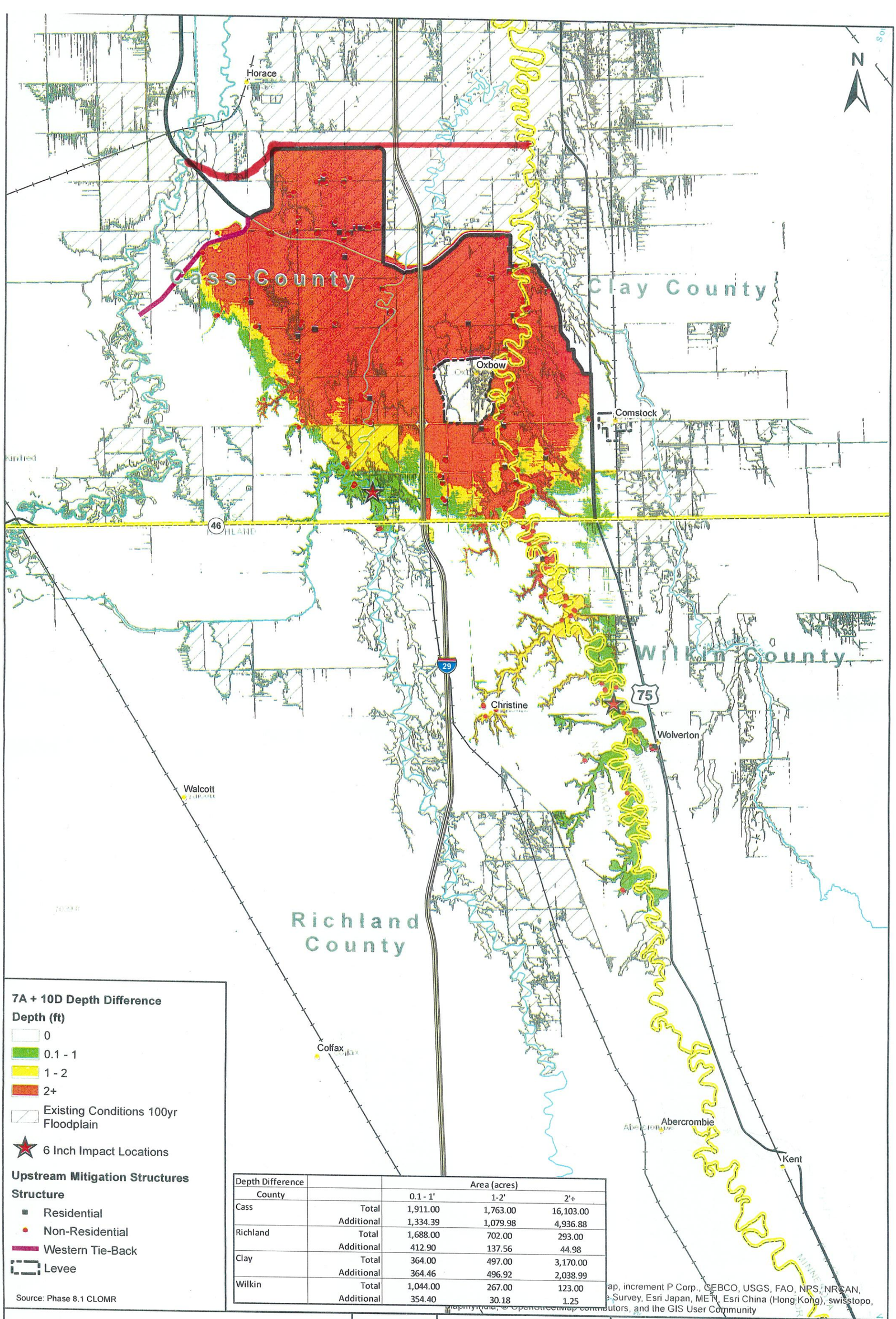
The Diversion leaders and Army Corps representatives wholly squandered this opportunity. Rather than explore or propose major changes, they elected to use everyone's time to try to re-litigate, *ad nauseum*, the details of their failed proposal. Ignoring the repeated warnings of the Commissioner and his staff that nothing less than major changes would do, the Diversion leadership proposed a project with a bigger foot print than what the DNR previously rejected. (Para 158, Findings and Order). They did so in a manner insulting to process by distributing a press release created before the final meeting, prior even to the engineers of the TAG group completing their comments and suggestions or communicating them to Kent Lokkesmoe. The Diversion Authority and Army Corps leadership thus effectively signaled that they cared little about what might constitute a lawful or least impact solution, or even what the Commissioner's opinion might be. In fact, by circulating the press release and DA decision mid meeting, prior to any discussion or alignment feedback, the Diversion leaders made evident their contempt for the generous contribution of time and efforts made by the DNR leadership and staff through the Governor's Task force and the subsequent TAG and Leadership Group meetings. Maybe that was the point. Maybe Mayors Mahoney and Williams wanted to pre-empt the words: "cold, ice cold."

The Richland-Wilkin JPA has always maintained that the original NED plan was a reasonable less impact alternative that should serve as the true baseline for comparison. The NED plan proposed a simple Minnesota side diversion, one-half the size of Fargo's plan, which fully protected the FM Metro while preserving the existing flood plains both North and South of the cities. This cost efficient alignment, with its inlet north of the Wild Rice / Red River confluence, stands as proof that Fargo's past or current 7A/10D plan cannot survive the "least impact solution" test required by Minnesota statute. **23 a**

The JPA proposal that emerged from the Task Force/Leadership meetings would also preserve valuable flood plain, fully protect the FM Metro, and has a footprint of 49,000 acres as opposed to Fargo's 7A/10D plan that covers 76,812 acres. The JPA's recent proposed northwest and south modifications to the project, which were vetted by Charlie Anderson and the TAG group, are further proof that Fargo's current "plan b" is not a "feasible, prudent, and minimal-impact alternative to provide flood protection to the F-M metropolitan area" with respect to all other reasonable alternatives. (Para 85, 198, Findings and Order). **23 b**

Respectfully Submitted

Cash H. Aaland



Depth Difference		Area (acres)		
County		0.1 - 1'	1-2'	2'+
Cass	Total	1,911.00	1,763.00	16,103.00
	Additional	1,334.39	1,079.98	4,936.88
Richland	Total	1,688.00	702.00	293.00
	Additional	412.90	137.56	44.98
Clay	Total	364.00	497.00	3,170.00
	Additional	364.46	496.92	2,038.99
Wilkin	Total	1,044.00	267.00	123.00
	Additional	354.40	30.18	1.25

Option 7A + 10DE Alignment Depth Difference Map

N W E S

0 0.375 0.75 1.5
Miles

HMG

Created By: enelson Date Created: 12/06/2017 Date Exported: 1/20/2018 Image: 2016 County NAIP Elevation Data: -
Coordinate System: NAD 1983 UTM Zone 14N Datum: North American 1983
H:\Fargo\JBN\7400\7438\13_7438_015\Minnesota Dam Safety Permit\Small Team\2017-11-13 Tech Advisory Com\GIS\H7A_10DE_DD.mxd

Comment 24

From:	matt ness
To:	MN_Review, Environmental (DNR)
Subject:	Fargo-Moorhead SEIS
Date:	Sunday, June 10, 2018 9:23:49 PM

I am writing in regards to the permit application for plan B for the Fargo Diversion.
I am a fourth generation farmer that would be harmed in numerous ways, and I feel could not be made whole with all of the catastrophic events that would occur. Our farmstead is Southwest of Comstock, MN 2 miles and sits along the Red River. This plan would artificially flood our farmstead along with much of our farmland with this plan B. In 2009, the highest recorded flood in Fargo, our farmstead sat high and dry, and the Red River crest would have had to go 3.5 feet higher in elevation than it was, to reach our yard. **24 a**

It is beyond belief that Minnesota would accept a plan that would artificially flood land that is higher and doesn't flood, while protecting land in North Dakota that is lower, floods, all while protecting this low flood plain in North Dakota for future development and to benefit developers and Fargo. This point has been made by the mayor of Fargo himself, asking "where are we supposed to grow". This plan B actually protects a larger floodplain for growth than plan A did.

My hope is that the state of Minnesota will follow their own state law, which states, the state must go with the least impactful plan, while still providing flood protection to the Fargo-Moorhead metro area. I am sure Minnesota is aware of a flood protection plan that is less impactful, costs less, and would have vertually no impacts to the state of Minnesota. This plan comes from a well respected engineer, Charlie Anderson, that would benefit the whole Red River Valley, not just Fargo's growth in flood plains. **24 b**

In closing, I ask that you would reject plan B that the diversion authority has asked the Minnesota DNR to permit. Thank you for your consideration. **24 c**

Matt and Rachel Ness
4763 Douglas Drive
Fargo, ND 58104

Comment 25

From: Trana Rogne
To: MN_Review, Environmental (DNR)
Subject: "Fargo-Moorhead SEIS"
Date: Sunday, June 10, 2018 10:14:12 PM

Ms. Jill Towley
SEIS Project Manager
Ecological and Water Resources Division, DNR

Thank you very much for the opportunity to comment on the "Plan B".
Text in quotation marks is the document. Other notes are my comments on the issue in question

https://s3.us-east-2.amazonaws.com/fmdiversion/FM+Diversion+Property+Rights+Acquisition+and+Mitigation+Plan+v.2_Reduced.pdf

"Acquisition costs will stay within the Project's annual budget." Page 7 of 161
The question is when does the budget determine the value (mitigation), of property to be acquired? How is that in compliance with the URA?
The upstream communities have seen no information as to where farmsteads are to be relocated.
Given the model of Oxbow, "housing of last resort" will become an issue. **25 a**

"10 The property rights in the Upstream Mitigation Area will be acquired prior to the Project being operational, which is after the final segment of the embankment is constructed."
Page 25 of 161
To allow construction and completion of the embankment and then acquire property is not conducive to fair and timely property acquisition. With an impending flood, would the operational project not be operated? **25 b**

"Mitigation of Properties in the Upstream Mitigation Area"
As far as can be determined, property with some area under 923.5 elevation will have all of the property "Staged" with ensuing deed restrictions on all of the property.

"Post-Operation Private Lands Debris Clean-Up Plan"
DRAFT Page 96 of 161
As previously noted this plan does not fully comply as a project funded mitigation feature. **25 c**

"Summer Operation Supplemental Crop Loss Program"
DRAFT Page 99 of 161
"To be eligible for the program, a producer must participate in a federal crop insurance program."
This provision makes no provision for the possibility that federal crop insurance is not available as it only exists by a renewal of the farm program.
There is no provision for the losses due to a flood event that would delay planting of contract crops past the contract dead line. The sugar beet contracts would become an issue. **25 d**

"Financial Assurance Plan for O&M and On-Going Mitigation"
DRAFT Page 101 of 161
There is no provision for a guarantee of O&M funding which is based on taxes, assessments, etc. Also it must be remembered that the voters rejected the Assessment For Diversion. It was passed by the city and county entities votes.
The first vote for the Diversion was for a plan that had no staging area and only downstream impacts that were at the time of the vote negligible. After the vote it was revealed that the plan would change. There is no assurance that the voters would not repeal O&M funding sources. **25 e**

http://fmdam.org/wp-content/uploads/2018/06/MN-DNR-SEIS-Final-Preparation-Notice-2018-05-21.pdf

"v. Staging Area"
"Other roads within the Staging Area will be allowed to flood when the control structure gates are in operation."
If all "other roads", ND HWY 46 and others such as Richland County #1, and others in the staging area are allowed to flood, the homes are not accessible. Mitigation for the loss of the home is necessary. The Army Corps also has proposed that life and safety issues would prevent occupancy of homes served by flooded roads. Orderly access to the metropolitan area would be hindered. **25 f**

Given the issues raised above, the "Plan B" is not the least impactful resolution to the problem. The JPA plan has only one drawback for the Diversion Authority: it does not provide for the flooding of farm land in exchange for new development in the flood plain. **25 g**

Sincerely
Trana Rogne
5477 Co Rd 1
Kindred ND 58051

Comment 26

From:	marcus.larson@ezhostmail.com
To:	MN_Review, Environmental (DNR)
Subject:	Fargo-Moorhead SEIS
Date:	Monday, June 11, 2018 8:40:21 AM
Attachments:	2018-06-11 Marcus Larson comments to MN DNR SEIS.pdf

Jill Townley and Minnesota Department of Natural Resources,

I have attached my comments to the SEIS to this email in pdf format and a text version in the email body below:

----- Begin Comment -----

June 11, 2018

Jill Townley
Minnesota Department of Natural Resources
500 Lafayette Road, Box 25
St. Paul, MN 55155-4025

RE: Fargo-Moorhead Flood Risk Management Project SEIS

After careful review of the following Minnesota Department of Natural Resource (MN DNR) and Fargo Moorhead Diversion Authority (FMDA) documents:

* MN DNR "Supplement to Environmental Impact Statement (SEIS) Final Preparation Notice"
* MN DNR "Findings of Fact" dated October 3, 2016
* FMDA "Plan B" alignment
* FMDA "Property Rights Acquisition and Mitigation Plan v.2" dated March 16, 2018

It would be inconsistent with Minnesota law and land use regulations to allow the FMDA to proceed with their proposed "Plan B". **26 a**

The FMDA role in the Governors task force was a consistent effort to revisit aspects of "Plan A" that were previously denied a Minnesota permit and currently has a injunction against all aspects of construction.

"Plan B" and the MN DNR SEIS does not contain all alternatives that were presented during the Governors Task Force meetings or the Technical Advisory Committee meetings.

"Plan B", as presented, is essentially the FMDA "Plan A" with minor alignment changes on the southern reach of the proposed project without seriously addressing proper mitigation to address the overall impacts of the entire proposed FMDA project. **26 b**

The proposed "Plan B" impacts new areas of Minnesota that would not have previously be inundated with water under existing "organic" conditions up to and exceeding a 500 year flood event. **26 c**

The extended project reach and extended drawdown times does not adequately address impacts and accelerated degradation of riverbank and related riverine environments, which will have long term and further reaching affects - which could increase maintenance costs and potentially lead to catastrophic failure of the level of protection being sought by the proposed project sponsors. **26 d**

There is little confidence in mapping and theoretical impacts presented by the FMDA and its engineers. **26 e**

The Minnesota DNR should require that all impact mapping be redone to illustrate “organic” existing conditions without the influence of “Plan A” or the benchmarks tied to the “Period of Record” or any other theoretical 100 year flood event. **26 f**

The 100 year flood event level that exists “today” is where impacts should be reflected and mitigation should occur. The FMDA has consistently attempted to reduce their mitigation liability with deceptive mapping practices in attempt to influence the MN DNR and other key decision makers.

Sincerely,

Marcus E. Larson
513 7th St
Hickson, ND 58047
701-893-6975 cell

----- End Comment -----

June 11, 2018

Jill Townley
Minnesota Department of Natural Resources
500 Lafayette Road, Box 25
St. Paul, MN 55155-4025

RE: Fargo-Moorhead Flood Risk Management Project SEIS

After careful review of the following Minnesota Department of Natural Resource (MN DNR) and Fargo Moorhead Diversion Authority (FMDA) documents:

- MN DNR "Supplement to Environmental Impact Statement (SEIS) Final Preparation Notice"
- MN DNR "Findings of Fact" dated October 3, 2016
- FMDA "Plan B" alignment
- FMDA "Property Rights Acquisition and Mitigation Plan v.2" dated March 16, 2018

It would be inconsistent with Minnesota law and land use regulations to allow the FMDA to proceed with their proposed "Plan B".

The FMDA role in the Governors task force was a consistent effort to revisit aspects of "Plan A" that were previously denied a Minnesota permit and currently has a injunction against all aspects of construction.

"Plan B" and the MN DNR SEIS does not contain all alternatives that were presented during the Governors Task Force meetings or the Technical Advisory Committee meetings.

"Plan B", as presented, is essentially the FMDA "Plan A" with minor alignment changes on the southern reach of the proposed project without seriously addressing proper mitigation to address the overall impacts of the entire proposed FMDA project.

The proposed "Plan B" impacts new areas of Minnesota that would not have previously be inundated with water under existing "organic" conditions up to and exceeding a 500 year flood event.

The extended project reach and extended drawdown times does not adequately address impacts and accelerated degradation of riverbank and related riverine environments, which will have long term and further reaching affects - which could increase maintenance costs and potentially lead to catastrophic failure of the level of protection being sought by the proposed project sponsors.

There is little confidence in mapping and theoretical impacts presented by the FMDA and its engineers.

The Minnesota DNR should require that all impact mapping be redone to illustrate "organic" existing conditions without the influence of "Plan A" or the benchmarks tied to the "Period of Record" or any other theoretical 100 year flood event.

The 100 year flood event level that exists "today" is where impacts should be reflected and mitigation should occur. The FMDA has consistently attempted to reduce their mitigation liability with deceptive mapping practices in attempt to influence the MN DNR and other key decision makers.

Sincerely,

Marcus E. Larson
513 7th St
Hickson, ND 58047
701-893-6975 cell

Comment 27

From: Tom Spaeth
To: MN_Review, Environmental (DNR)
Subject: Fwd: Undeliverable: Fwd: Letter - Diversion Comment Due June 11
Date: Monday, June 11, 2018 9:52:04 AM

---------- Forwarded message ----------
From: Tom Spaeth <tom@accentcontracting.com>
To: <environmentalrev.dnr@state.mn.us
Cc:
Bcc:
Date: Mon, 11 Jun 2018 09:31:43 -0500
Subject: Fwd: Letter - Diversion Comment Due June 11

Dear Ms. Townley,

As a resident and business owner in Moorhead, Minnesota, I want to thank the Minnesota Department of Natural Resources, Minnesota Governor Mark Dayton and North Dakota Governor Doug Burgum for the time and dedication shown during the meetings to discuss and make changes to the Fargo-Moorhead Area Diversion Project.

These meetings were imperative to putting forward a new and improved project, that all parties could compromise to, in order to protect the Fargo-Moorhead and surrounding areas from the effects of a catastrophic flood.

As a resident of Moorhead for the past 24 years, I can show you how badly permanent flood protection against a 100-year flood is needed. The effects of the threat of flooding are not lost on those it impacted. In the 1997 flood, my family and I were displaced from our home for seven weeks. We had five feet of water in our basement and our only access to our home was by boat. In 2009, my personal home did not flood, because of the physical, mental and financial effort put forward to build a five-foot high ring dike around our home. In addition, my business suffered the worst two fiscal quarters in its entire history as the entire community was fighting courageously around the clock to keep our community safe. During that time, our community needed to come together because permanent flood protection was not in place.

The lack of protection reaches everyone in the community. For example, thousands of residents in the Fargo-Moorhead community are paying flood insurance every month. Every month there is a delay, it costs the average homeowner $400 in flood insurance premiums, impacting their ability to contribute to the local economy.

This project has been studied thoroughly. As a resident and business-owner of Moorhead, I think all parties involved have come up with a fully-vetted project scope that can be reviewed. No more dollars need to go into evaluating alternative routes, enough has been done and the

27a

project needs to move forward for the safety and economic vitality of our community.

Sincerely,

Tom Spaeth

Tom Spaeth

Vice President

Accent Kitchen and Bath

3151 Main Ave

Fargo ND 58103

701-219-1891 cell

701-293-6000 office

701-364-0089

HBA of FM President 2016

NDAB Board of diectors

NAHB Board of directors

Accent Kitchen and Bath

Comment 28

From:	Beth McConnon
To:	MN_Review, Environmental (DNR)
Subject:	Fargo-Moorhead SEIS
Date:	Monday, June 11, 2018 10:54:24 AM
Attachments:	MN DNR Comments SEIS.doc

Good morning,

Attached, please find my comments on the Fargo-Moorhead Flood Risk Management Project Supplement to Environmental Impact Statement Final Preparation Notice.

Sincerely,
Beth McConnon
1714 Gold Dr. S #205
Fargo, ND 58103

June 10, 2018

Beth McConnon
Representing: Self - Organic Farmer
Mailing Address: 1714 Gold Dr S Apt#205 Fargo, ND 58103
Email: bethmcconnon@outlook.com

Comments on the Fargo-Moorhead Food Risk Management Project - Supplement to Environmental Impact Statement (SEIS) Final Preparation Notice

I would like to begin by expressing my gratitude for the Minnesota Department of Natural Resource's work on the SEIS for the proposed Fargo-Moorhead Flood Risk Management Project Plan B. I am appreciative of the DNR's willingness to read and reply to public comments on its work; thank you for the opportunity to share my opinions on the SEIS Final Preparation Notice.

After reviewing the Preparation Notice for the SEIS and upon further research of the proposed "Plan B," there are a number of items that caught my attention and are cause for concern. These areas are listed and addressed below.

1. I am extremely disappointed by the outcome of the Task Force that was assigned to address issues and find alternatives for the denied project. It appears as though the Diversion Authority overlooked least impactful solutions, and that the modified "Plan B" is no less detrimental to the state of Minnesota than was the original plan. The basic principles of Plan B are ultimately the same as the original plan, which was denied a permit; natural floodplain is still being transferred from North Dakota to high ground in Minnesota, and a high hazard dam is still present. It has been shown that there are other means of providing long term, 100+ year FEMA certifiable flood protection to the Fargo Moorhead area that have fewer impacts on the region as a whole and do not require a high hazard dam. These alternatives include, but are not limited to, the Minnesota 35K diversion (the original NED plan), a model presented by engineer Charlie Anderson, and basin-wide retention projects used in combination with large-scale water impoundments or drain tiling. The idea behind the Governor's Task Force was pure – to work together to find a least impactful solution that satisfies all parties; the Task Force failed to achieve its goal. Because this project is of the same scope as the original project (whose permit was denied), it is evident that "No Action Alternative with Emergency Measures" is superior to the Diversion Authority's Plan B. I would urge the DNR to explore and analyze the before-mentioned, achievable alternatives. 28 a 28 b 28 c 28 d

2. Secondly, I am concerned about what will happen to the infrastructure of roadways within the proposed staging area. Have any studies been conducted that address the maintenance of gravel roads within or around the staging area? I would suspect that erosion is likely to occur in the event of water storage; will roads be accessible and safe to drive on for those who use them to access their homes or farmland? Will they be passable for emergency vehicles (ambulances, fire trucks, police vehicles, etc.) in the case of an emergency? Will school buses be able to drive on them? I am concerned about what will happen to county roads within the staging area, not only for the safety of civilians but also for the potential negative impacts that road erosion could have on farmland and wildlife. Please examine the possible damages to roadways, given the water levels proposed by Plan B. 28 e

3. Third, I am concerned about the negative impacts that this project will have on wildlife. How will Plan B affect the abundance of fish, deer, pheasant, quail, fox, coyote, and birds of flight and prey that are currently present in our area? Will the loss of stream stability drive them away? Will fish be able to follow their usual paths? Will they be trapped within the staging area and die? The wildlife in Holy Cross township (and the surrounding area) is abounding and it would be a crime to displace these animals because of a man-made dam. 28 f

4. Lastly, I would like to bring up the issues surrounding organic agriculture in association to the proposed diversion. Minnesota is a forerunner for organic agriculture in the Midwest; this is something that is commendable and recognized. Hundreds of acres of certified organic farmland will be inundated with floodwater in the event that Plan B is utilized. It is probable that certified organic land would be contaminated with floating debris, GMO seeds, and various chemical, insecticidal and fungicidal residues in this event. Will the USDA continue to grant organic certification to existing organic farmers within the staging area given these circumstances? Will crop insurance cover the loss of production in the staging area for years that it is utilized? How would the water staging area impact the valuation of farmland? How will the ecosystem be affected by long periods of inundation? I would ask that the DNR conduct a thorough analysis on the long-term affects that the proposed diversion would impose upon organic farming. As a sixth generation farmer whose land has been in her family for over 100 years, has never experienced flooding, and has been certified organic for 21 years, this issue is of true concern to my family and it cannot be overlooked. 28 g

Thank you for taking the time to read my comments and for your dedication to ensuring the best outcomes for the state of Minnesota.

- Beth McConnon

Comment 29

From: Mark Askegaard
To: MN_Review, Environmental (DNR)
Subject: Fargo-Moorhead SEIS
Date: Monday, June 11, 2018 11:21:33 AM

We would like to express our appreciation to the MN DNR for accepting our comments on the SEIS for the FM Flood Risk Management Project Plan B.

After examining the preparation notice for the SEIS there are several things which we would like to comment on. These are listed below.

1. The joint Task Force formed by Governors Burgum and Dayton were not allowed to examine all alternatives for flood protection to the F-M area.
2. Plan B totally disregards potential positive basin wide impacts from distributed storage throughout the basin and how it can lower impacts to not only the F-M area but the entire Red River Basin.
3. The original NED Minnesota 35K diversion provides the most benefits, with the fewest impacts to the floodplain at the lowest cost to the taxpayer and should be reexamined. 29 a
4. Charlie Anderson's model clearly shows that the existing F-M area can be protected by downsizing the scope of the project, preserving more floodplain and is less impactful than Plan B and as such needs to be reviewed. 29 b
5. Plan B still incorporates a high hazard dam. Flood protection for the F-M area does not require a high hazard dam if done properly.
6. The area protected (floodplain encroachment) in Plan B is not reduced from the original permit application.
7. Plan B violates local water management plans governed by our township and watershed district. 29 c
8. Plan B does not address concerns regarding damages to property or the environment nor shows how such compensation will be secured. 29 d
9. Crop insurance concerns, potential loss of organic certification, home and farmstead relocations as well as infrastructure concerns in staging area are not addressed. 29 e
10. Environmental impacts need to be thoroughly vetted.
11. Low lying land in ND should not be flood protected for development at the expense of others. 29 f

Thank you for taking the time to review our comments and for your dedication to ensure that the environment is protected.

Mark and Barb Askegaard
2519 Viking Circle
Fargo, ND 58103

Comment 30

From: wm2brtrd@wtc-mail.net
To: MN_Review, Environmental (DNR)
Subject: "Fargo-Moorhead SEIS"
Date: Monday, June 11, 2018 12:51:49 PM

We feel basin wide retention is the best for all concerned and definitely much cheaper and safer without

the proposed dam than the revised version the FM diversion is proposing. Why put this huge burden on the

taxpayers, for years to come, when there are better and cheaper ways to make Fargo safe and to save the

many generational farms, cemeteries and leave mother nature in its intended state for the farmer tenants.

Thank you.

Wayne & Marilyn Farsdale
16845 County Road 2
Walcott, ND
58077

Comment 31

From:	Del Rae Williams
To:	MN_Review, Environmental (DNR)
Cc:	Naramore, Barb (DNR); MN_Commissioner (DNR)
Subject:	Fargo-Moorhead SEIS
Date:	Monday, June 11, 2018 1:17:35 PM

Attached is the Diversion Authority's comments for the SEIS. Thank you.

Best,
Del Rae Williams

Sent from my Verizon, Samsung Galaxy smartphone

FLOOD DIVERSION AUTHORITY

Box 2806 • 211 Ninth Street South • Fargo, ND 58108

June 11, 2018

Jill Townley, Project Manager
Environmental Policy and Review Unit
Box 25 Ecological and Water Resources Division DNR
500 Lafayette Road
St. Paul, Minnesota, 55155-4025

Dear Ms. Townley,

Please accept the following comments in response to the Preparation Notice for the Supplemental Environmental Impact Statement (SEIS) for the Fargo-Moorhead Flood Risk Management Project. In summary, the Diversion Authority finds the proposed scope in the SEIS Preparation Notice to be appropriate and sufficient, and the Authority offers you our full support necessary to maintain the proposed time schedule.

We first want to thank you and the entire DNR team that has been dedicated to this Project for the past several years. We especially want to express appreciation for the time and dedication by Commissioner Landwehr, Assistant Commissioner Naramore, Suzanne Jiwani, Kent Lokkesmoe, and you through the Task Force assembled by Governor Dayton and Governor Burgum, along with the subsequent efforts that followed those formal meetings. I believe the Governors' Task Force will be looked upon as a historic milestone in the development of Plan B and for furthering permanent flood protection for the entire Fargo-Moorhead area.

The Diversion Authority is fully supportive of the stated Project Purpose in the FEIS to "Reduce flood risk potential associated with a long history of frequent flooding on local streams including the Red River, Sheyenne, Wild Rice (North Dakota), Maple, Rush and Lower Rush Rivers passing through or into the F-M metropolitan area." In addition, the scope developed for the proposed SEIS appropriately relies upon the comprehensive screening and analysis of alternatives previously performed in the DNR's FEIS, including the "Alternative Rescreen Exercise" included in Appendix M as a response to public comments questioning if the Project Purpose was too narrowly focused.

The FM Area Diversion Project is a significant project in the Red River Basin that protects over 235,000 people in the cities of Fargo, West Fargo, Harwood, Horace, Reiles Acres, Frontier, Prairie Rose, Briarwood, and North River, as well as reducing flood risk for residents in Barnes, Berlin, Harwood, Mapleton, Pleasant, Raymond, Reed, Stanley, Warren, and Wiser Townships. Each of these entities is important; however, other concepts being advanced by opponents to Plan B to relocate the Diversion Channel to Minnesota, or to modify the Northwest Channel alignment to leave 1,500 residents in and around the City of Harwood without protection, have already been ruled out by the DNR in past screening exercises and should not be reconsidered as part of the SEIS. These concepts do not fulfill the Project Purpose, nor do they meet the guiding principles established by the Governors' Task Force.

FLOOD DIVERSION AUTHORITY

Box 2806 • 211 Ninth Street South • Fargo, ND 58108

While Fargo and Moorhead are the largest cities in the metro area, the numerous smaller cities, subdivisions, and populated townships have also grown and, in many cases, borders have merged together. These communities have worked well together over the years but, at times, the identification as "Fargo area" or "Fargo-Moorhead" results in smaller entities being left out of the discussion on comprehensive plans, such as flood protection. This is an issue that we have been sensitive to and have addressed during the development of the FM Area Diversion Project.

The permit application for Plan B utilizes the recommendations and modifications unanimously adopted by the Governors' Task Force, such as to refine the baseline assumptions concerning in-town flows and historical period of record, which allowed for the modifications of the Project's embankment/dam to address the proportional impacts between the two states, the benefited/unbenefited area, and flood risk transfer due to the Project. These modifications included in Plan B also encompass the advantages of, and improves upon, the Northern Alignment Alternative which was robustly analyzed as part of the FEIS such that we agree that no additional iterations of the Northern Alignment Alternative are required or appropriate.

We look forward to assisting you in any way possible throughout this year through the permit application review, and also to a coordinated, transparent process to develop mitigation measures that we know are important to both the DNR and to us. The Diversion Authority is committed to achieving an appropriate regulatory outcome, and we offer our competent and experienced technical staff to help share their local knowledge of past flood events and assist you in meeting the multiple milestones DNR has determined are necessary to complete the permit application review, and ultimately, to construct the FM Area Diversion Project.

Sincerely,

Mayor Del Rae Williams
City of Moorhead
Diversion Authority Chair

Commissioner Mary Scherling
Cass County
Diversion Authority Vice-Chair

Comment 32

MINNESOTA POLLUTION CONTROL AGENCY

520 Lafayette Road North | St. Paul, Minnesota 55155-4194 | 651-296-6300

800-657-3864 | Use your preferred relay service | info.pca@state.mn.us | Equal Opportunity Employer

June 11, 2018

Jill Townley
Minnesota Department of Natural Resources
500 Lafayette Road
Box 25
St. Paul, MN 55155-4025

Re: Fargo-Moorhead Flood Risk Management Supplemental Environmental Impact Statement Final Preparation Notice

Dear Jill Townley:

Thank you for the opportunity to review and comment on the scoping of the Supplemental Environmental Impact Statement (SEIS) for the Fargo-Moorhead Flood Risk Management Project (Project). The Project consists of a flood control project to divert floodwaters around the cities of Fargo, North Dakota and Moorhead, Minnesota.

The Minnesota Department of Natural Resources (DNR) prepared a state EIS for the Project. The EIS process concluded in June 2016 with DNR's EIS adequacy determination. Following discussions and coordination with the DNR and the U.S. Army Corps of Engineers (USACE), the Project proposer, the Flood Diversion Board of Authority, has developed a revised version of the Project, referred to as Plan B, which will be evaluated in the SEIS.

The Minnesota Pollution Control Agency (MPCA) has reviewed the SEIS preparation notice and offers the following comments and suggestions. While the MPCA does not formally object to the scope of the SEIS, the agency respectfully requests that it be modified to ensure the following comments will be addressed adequately when preparing the SEIS:

1. The SEIS must provide sufficient information regarding all surface water impacts associated with the Plan B alternative. This must include:
    - Descriptions, including maps, of specific impacted surface waters (wetlands, streams, open waters) in each state (Minnesota and North Dakota), clearly differentiating between proposed permanent and temporary impacts.
        - Please identify and describe any high quality or outstanding resource value waters proposed for impact.
        - Please identify any Clean Water Act (CWA) 303(d)-listed impaired waters within one mile of the Project.
    - Proposed mitigation to compensate for the lost designated uses of any surface waters that will be permanently impacted.

32 a

2. The SEIS must analyze and demonstrate whether the Project will be able to comply with the applicable state water quality standards (Minn. R. ch. 7050). All surface waters in Minnesota that will be impacted by the Project (directly or indirectly) must be considered. The Minnesota water quality standards apply to all waters of the state (Minn. Stat. 115.01, Subd. 22) - which, for a given project area, may include waters that are not considered waters of the U.S. or jurisdictional to the USACE.

3. Please ensure the SEIS includes a discussion on the specific best management practices that will be implemented during construction of the Project, both above the Ordinary High Water Level and below it (when conducting construction activities in aquatic resources), to reduce or eliminate total suspended solids/sediment from entering ditches, various reaches of creeks, streams, rivers, and any other type of water conveyance structure that the Project will impact. These may include: silt curtains, weighted turbidity curtains, upstream diversions to temporarily reduce or eliminate flow during in-water construction activities, construction during no/low flows, winter conditions, coffer and rock-check dams, etc. **32 b**

4. If a USACE CWA Section 404 permit is required for the Project, the MPCA CWA 401 Water Quality Certification must ensure compliance with the state of Minnesota's antidegradation water quality standards (Minn. R. parts 7050.0250 to 7050.0335), amended November 2016. The updated rule language requires submittal of an antidegradation assessment (Minn. R. ch. 7050.0285) as a part of the request for 401 water quality certification. The MPCA has attached a draft assessment form to assist with completion of this required assessment. For further information about the 401 Water Quality Certification process or antidegradation assessment, please contact Bill Wilde at 651-757-2825 or William.wilde@state.mn.us. **32 c**

Please note that the comments included here are more detailed than comments the MPCA submitted on the original EIS. MPCA had originally anticipated that information regarding adherence to state water quality standards would be reviewed as part of a CWA 404/401 process associated with the Project. However, the USACE indicated it intended to follow the 404(r) process with the original project, which negated the need for the 404 permit/401 certification. In case the USACE makes the same decision with this SEIS, the MPCA is including comments about state water quality standards here to ensure that state standards are fully addressed. If the USACE makes a different decision and follows the typical CWA 404/401 process, MPCA would be comfortable with deferring the standards-related comments to that process.

We appreciate the opportunity to review this Project. Please be aware that this letter does not constitute approval by the MPCA of any or all elements of the Project for the purpose of pending or future permit action(s) by the MPCA. Ultimately, it is the responsibility of the Project proposer to secure any required permits and to comply with any requisite permit conditions. If you have any questions concerning our review of this SEIS, please contact me by email at Karen.kromar@state.mn.us or by telephone at 651-757-2508.

Sincerely,

Karen Kromar
Project Manager
Environmental Review Unit
Resource Management and Assistance Division

KK:bt

cc: Dan Card, MPCA, St. Paul
Bill Wilde, MPCA, St. Paul
Jim Zeigler, MPCA, Detroit Lakes

Minnesota Pollution Control Agency (MPCA) Antidegradation Assessment for Section 401 Water Quality Certification Applicants

7.18.17

In addition to completing the Joint Application Form for Activities Affecting Water Resources in Minnesota, applicants whose proposed projects may require an MPCA Individual 401 Water Quality Certification for work in aquatic resources must also provide the information requested below. This will facilitate the MPCA's review of the proposed project for compliance with the antidegradation water quality standards (Minn. R. 7050.0250 to 7050.0335). Section 401 of the Clean Water Act requires any applicant for a federal license or permit to conduct an activity that may result in a discharge to waters of the United States to obtain certification from the state in which the discharge originates to ensure compliance with state water quality standards. The antidegradation assessment is not required for all projects; if you know that your project will qualify for a U.S. Army Corps of Engineers 404 General Permit or Letter of Permission (LOP), you do not need to fill out this form. If the information requested below is already provided in your Joint Permit Application (JPA), please indicate where.

Applicant/Project Name:
Date:

Environmental Assessment Worksheet (EAW)/Environmental Impact Statement (EIS)
Identify whether an EAW or EIS was prepared (or will be required) for this project, and include the EAW/EIS process completion date.

Analysis of Non-Preferred Alternatives That Avoid and Minimize Degradation
Describe prudent and feasible alternatives that would minimize degradation and avoid or minimize surface water impacts (such as wetlands, lakes, streams, etc.). An analysis of each alternative must include a description of how impacts to surface waters are avoided and/or minimized, and include information on any design considerations and constraints, expected performance, construction, operation, and maintenance costs, and reliability for each alternative.

Preferred Alternative
Provide a description of and justification for the preferred alternative, and verify that the preferred alternative is the least degrading prudent and feasible alternative for surface water. Note: Information in Attachment C of the Joint Application Form for Activities Affecting Water Resources in Minnesota (Application) may be used to help determine if the preferred alternative, relative to other available prudent and feasible alternatives, is appropriate.

Beneficial Uses
Describe the current existing beneficial uses of the surface waters impacted by the project and how the beneficial uses will be protected during and after the project. Review Minnesota Rules 7050. 0410-0430 for the classification that fits the existing beneficial uses of the waters impacted by your project. https://www.revisor.mn.gov/rules/?id=7050

Indirect Impacts
Where partial alteration of a surface water will occur, describe the potential indirect impacts to the remaining surface water, and the potential impact to nearby wetlands, stream, lakes, etc. When the entire function/acreage of a surface

water is lost, describe the impacts to nearby wetlands, streams, lakes, etc. Indirect impacts can include changes in hydrology, aquatic species health or population, changes in vegetation or macroinvertebrate (bug) populations, etc.

Loading and Degradation to Surface Waters

Describe any anticipated net increases in loading and other causes of degradation expected in surface waters that are not directly filled or dredged when your proposed project preferred alternative is fully implemented.

Water Quality Comparison Before and After Project

Compare and describe the existing water quality at the project site with the anticipated water quality after the project is fully complete and operational. If the surface area of a water resource will be completely filled, this step is not necessary, but must be addressed in the Mitigation Plan below.

Comparison of Existing and Expected Economic Conditions and Social Services

Provide a comparison of existing and expected economic conditions and social services when the proposed project (preferred alternative) is fully implemented. Include description of economic gains or losses attributable to the proposed activity; contribution to social services; prevention/remediation of environmental or public health threats; trade-offs between environmental media; the value of the water resources; and other relevant environmental, social, and economic impacts of the proposed activity.

Description of the Mitigation Plan

If the applicant will mitigate the project's permanent surface water impacts via an approved wetland bank AND the mitigation is type-for-type AND located in the same major watershed (https://www.pca.state.mn.us/water/watersheds) the applicant does not need to complete this portion.

Using the project information provided above, describe how the proposed compensatory mitigation will replace existing uses and maintain the current level of water quality at the proposed project site (e.g. wetland types, replacement ratio, water monitoring data if available).

Describe how the compensatory mitigation will be maintained and the monitoring activities that will be conducted to ensure the proposed mitigation is viable. Include a timeline for reporting progress and an intervention/remediation plan to be implemented if the mitigation fails.

Comment 33

From:	Best, Steve L.
To:	MN_Review, Environmental (DNR)
Subject:	Fargo-Moorhead SEIS
Date:	Monday, June 11, 2018 3:06:06 PM
Attachments:	NDSWC_Fargo-Moorhead SEIS.pdf

Steven Best
stevebest@nd.gov

Steven Best
Natural Resource Planner
ND State Water Commission
701-328-4970

North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850
(701) 328-2750 • TTY 1-800-366-6888 or 711 • FAX (701) 328-3696 • http://swc.nd.gov

June 11, 2018

Jill Townley
Minnesota Department of Natural Resources
500 Lafayette Road
Box 25
St. Paul, MN 55155-4025

Dear Ms. Townley:

This is in response to your request for a review of the environmental impacts associated with the Fargo-Moorhead Flood Risk Management – Revised Project.

The proposed project has been reviewed by State Water Commission staff, and the following comments are provided:

- The Office of the State Engineer (OSE) Engineering and Permitting Section staff has reviewed the *Fargo-Moorhead Flood Risk Management Project: Supplement to Environmental Impact Statement (SEIS) Final Preparation Notice*. The OSE has no additional comments on the scope of the SEIS. As the OSE staff have stated on numerous prior opportunities to comment on the Fargo-Moorhead Flood Risk Management Project, since the proposed project route traverses over and through surface water resources such as watercourses (i.e. streams or rivers), agricultural drains, and wetlands (i.e. ponds, sloughs, lakes, or any series thereof), any alterations, modifications, improvements, or impacts to those water resources will require approval from the North Dakota State Engineer through the construction and drainage permitting processes. Additionally, any stream crossing (or opening to permit the flow of water under, adjacent to, or because of a highway, street, or road) proposed to be replaced along the project route must meet North Dakota Stream Crossing Standards. Please contact the OSE Engineering and Permitting Section at 701-328-4288 if you have any questions. 33a

- Depending on the operation of the Flood Control Dam, a flood control water use permit may be required.

- Through the National Flood Insurance Program (NFIP), a floodplain permit is required for all development that takes place within a Special Flood Hazard Area, as identified by FEMA. The minimum NFIP requirements can be found in Chapter 44 of the Code of Federal Regulations (mostly within Parts 59 and 60). Please work with the local floodplain administrators for additional information and permit requirements.

In addition, projects located within the regulated floodway must meet the requirements of North Dakota Century Code § 61-16.2-14. Before authorizing any development, the community responsible for permitting such use shall request a floodway review from the State Engineer. The application form may be downloaded from our website under "Regulation & Appropriation, Floodplain Management". A list of pertinent contacts can be provided upon request. Please contact Dionne Haynes with any questions regarding this process.

As of the date these comments are being submitted, our Dam Safety staff has not had an opportunity to provide comments. We hope that if they have comments to provide, you will accept them at a later date.

Thank you for the opportunity to provide review comments. If you have any questions, please call me at 701-328-4970.

Sincerely,

Steven Best
Natural Resource Planner

SB:dm/1570

Comment 34

From: Dan Lindquist
To: MN_Review, Environmental (DNR)
Subject: Fargo/Moorhead SEIS
Date: Monday, June 11, 2018 3:06:18 PM

Dan Lindquist

Dan Lindquist Construction, Inc.
PO Box 9676
Fargo ND 58106
701-261-8230
-----Original Message-----
From: Dan Lindquist
Sent: Monday, June 11, 2018 1:02 PM
To: Dan Lindquist ; Bryce Johnson ; Chelsea Smith
Subject: Diversion Comment Due June 11

Let me know what you think

Dear Ms. Townley,

As a resident and business owner in Moorhead, Minnesota, I want to thank the Minnesota Department of Natural Resources, Minnesota Governor Mark Dayton and North Dakota Governor Doug Burgum for the time and dedication shown during the meetings to discuss and make changes to the Fargo-Moorhead Area Diversion Project.
These meetings were imperative to putting forward a new and improved project, that all parties could compromise to, in order to protect the Fargo-Moorhead and surrounding areas from the effects of a catastrophic flood.

As a longtime resident of Moorhead, I understand how badly permanent flood protection against a 100-year flood is needed. In grade school, my family lived next to the river in South Moorhead. I have memories of fighting floods dating back to the 1960s that are still vivid to me. The effects of the threat of flooding are not lost on those it impacted. During the 1997 flood,
my business, like so many others, came to a grinding halt for about a 2 week period. The entire
community was focused on fighting courageously around the clock to keep our community safe. During that time, our community needed to come together because permanent flood protection was not in place.

The lack of protection reaches everyone in the community. For example, thousands of residents in the Fargo-Moorhead community are paying flood insurance every month. Every month there is a delay, it costs the average homeowner $400 in flood insurance premiums, impacting their ability to

contribute to the local economy.
This project has been studied thoroughly. As a resident and business-owner of Moorhead, I think all parties involved have come up with a fully-vetted project scope that can be reviewed. No more dollars need to go into evaluating alternative routes, enough has been done and the project needs to move forward for the safety and economic vitality of our community. 34a

Thank you,

Dan Lindquist
Dan Lindquist Construction, Inc.
2318 N River Drive
Moorhead, MN 56560

Comment 35

From:	ods06107cpc
To:	MN_Review, Environmental (DNR)
Subject:	Fargo-Moorhead SEIS
Date:	Monday, June 11, 2018 3:07:48 PM
Attachments:	Scan.pdf

Gary & Patricia Redlin
5273 County Road 81 S
Hickson, ND 58047

Print Center Store #6107 | Office Depot, Inc.
4360 13th Ave S | Fargo, ND 58103
Tel: 701-277-0349 | ods06107cpc@officedepot.com

Attention

Jill Townley

June 7, 20018

Jill Townley
Minnesota Department of Natural Resources
500 Lafayette Road
Box 25
St. Paul, MN 55155-4025

Gary & Patricia Redlin
5273 County Road 81 S.
Hickson, ND 58047-9740

RE: Fargo-Moorhead Flood Risk Management Supplemental Environmental Impact Statement Preparation Notice

Hear we are again fighting to keep our home which is not in the flood plain. We were never in danger of losing our home during the 1997 or 2009 floods.

But because of the rich land developers who are wanting to continue developing in the flood plain south of Fargo, we may be forced to leave our home.

With all the internal flood protection Fargo has done and is doing they are protected for a hundred year flood or more. There is no need for a dam to be built, a diversion is all the extra protection Fargo needs.

This new plan has done nothing to protect us land owners upstream who are now fully protected from flooding. The dam would probably be used once in 15-20 years, which is a very poor reason we should lose our home.

Better plans were presented but Fargo is only interested in developing in the natural flood plan so they aren't interested in looking at them.

I thought Federal Law prevented from building in the natural flood plain while seeking flood protection. I don't know how you can take someone's home so someone else can build a home. That does not seem right or fair. 35a

Just once it would be nice to see the little poor guy win against the rich who buy what ever they want. Because this project is about land development and not flood protection.

My husband's family lost their farmstead for the Garrison Dam and now he my lose his home again and not enjoy it during his retirement years. Where is the justice in that?

Comment 36

From: Larry Ness
To: MN_Review, Environmental (DNR)
Subject: Fargo-Moorhead SEIS
Date: Monday, June 11, 2018 3:35:05 PM

My name is Judith Ness. My husband Larry Ness and I reside on a rural farm three miles southwest of Comstock, MN along the Red River. We own, rent, and actively farm with our son acres of land that borders the Red River on the west and borders highway 75 on the east. We would be severely impacted by the FM Diversion Authorities proposed plan B. Our farm being a third generation family to live and farm on this location for seventy eight years have not once in all seventy eight years been flooded from the Red River ! **36a**

Of great concern and fear is the possible building of a high hazard dam. **36 b** This would greatly put at high risk public safety. Also, flooded roads would create a lack of ability to access help in case of emergencies. **36c**

We would be severely impacted negatively in so many ways. Losing many valuable tillable acres to construct a levee along highway 75, flood waters inundating our home and farmstead buildings, flood water debris on tillable acres to be seeded in the spring, loss of potential farm income from delayed spring planting or heavy summer rain flooding as a result of holding back too much rain water, by using the dam to close off too much rain water to enter the Red River. **36d**

We feel there is other reputable alternative options, which have been studied and confirmed by Charlie Anderson that would have much less impact, but still be effective. Minnesota is protected from flooding and does not need a diversion. We request that FM Diversion's plan B be turned down and not permitted. **36 e** **36 f**

Judith and Larry Ness

From: Larry Ness
To: MN_Review, Environmental (DNR)
Subject: Re: We have received your comment
Date: Monday, June 11, 2018 3:39:54 PM

I just remembered I forgot to include our USP mailing address.

Larry and Judy Ness
17666 3rd St S
Moorhead, MN 56560

On Monday, June 11, 2018 3:35 PM, "MN_Review, Environmental (DNR)" <environmentalrev.dnr@state.mn.us> wrote:

Thank you for providing comments on this environmental review document. We will review the comments you have provided. Responses to all substantive comments will be included in the official record. If you have provided your address, you will be included in mailings or electronic distribution of the record.

Comment 37

From:	Bruce Albright
To:	MN_Review, Environmental (DNR)
Cc:	Eric Dodds
Subject:	"Fargo-Moorhead Flood Risk Management Project SEIS"
Date:	Monday, June 11, 2018 3:39:54 PM
Attachments:	doc02373820180611155136.pdf

As requested via your electronic mail regarding the above dated 05/21/18, the Buffalo-Red River Watershed District (BRRWD) would like to offer the attached comments. Questions/comments, let me know.

Bruce E. Albright, Administrator
Buffalo-Red River Watershed District
1303 4TH AVE NE
Barnesville, MN 56514-0341
Telephone # 218-354-7710
e-mail: balbright@brrwd.org
website: www.brrwd.org

BUFFALO-RED RIVER WATERSHED DISTRICT

BARNESVILLE, MINNESOTA 56514

1303 4th AVE NE
Email: general@brrwd.org

PO BOX 341

PHONE 218-354-7710
Website: www.brrwd.org

June 11, 2018

Jill Townley, Project Manager
Ecological and Water Resources Division
Minnesota Department of Natural Resources
500 Lafayette Road, Box 25
St. Paul, MN 55155-4025

RE: Fargo-Moorhead Flood Risk Management-Revised Project
Comments on the Scope of the SEIS

SENT VIA ELECTRONIC MAIL

Dear Ms. Townley,

In accordance with the SEIS final preparation notice dated May 21, 2018 and in response to Section 3A, Alternatives, Section xii, Cumulative Potential Effects, I would like to offer the following:

37 a

- The Watershed will start construction of the Wolverton Creek Restoration and Sediment Reduction Project in mid-July 2018. This 26.5-mile restoration initially was involved with the F-M Diversion Project and now with the proposed southern dike alignment, is no longer affected. It is in very close proximity to the proposed diversion project. Our project will take 2 years to complete (2018-2019).

37 b

- We just received an improvement petition for Clay-Wilkin Judicial Ditch (J.D.) No. 1. The improvement will begin at the outlet of the main ditch near the quarter line in Section 27, Holy Cross Township, and proceed upstream for approximately 3.2 miles ending near the quarter line in Section 36, Alliance Township. It is anticipated that this project could be built in 2019.

If you should have questions or comments concerning the above, please feel free to contact this office.

Sincerely,

BUFFALO-RED RIVER WATERSHED DISTRICT

Bruce E. Albright

Bruce E. Albright
Administrator

BEA/kf

cc: Eric Dodds, Engineer, AE2S, 4170 28th AVE S, Fargo, ND 58104

Comment 38

From:	Darlene Finken
To:	MN_Review, Environmental (DNR)
Cc:	Jerry Von Korff
Subject:	Fargo-Moorhead SEIS - Comments of Richland/Wilkin Joint Powers Authority
Date:	Monday, June 11, 2018 3:48:08 PM
Attachments:	image001.png JPA Comments to SEIS Final 6-11-2018.pdf

Ms. Townley:

Attached please find the Comments of Richland/Wilkin Joint Powers Authority submitted on their behalf by counsel, Jerry Von Korff, our mailing address is listed below. Thank you.

Darlene V. Finken
Paralegal to Jerry Von Korff

RINKE NOONAN
Suite 300, US Bank Plaza
P.O. Box 1497
St. Cloud, MN 56302
(320) 656-3550 Direct
(320) 656-3500 Fax

website | email | map

ATTN: Jill Townley
Minnesota Department of Natural Resources

In the matter of Fargo-Moorhead Flood Risk
Management Project Supplement to Environmental Impact Statement (SEIS)
Final Preparation Notice

Comments of Richland/Wilkin Joint Powers Authority

TABLE OF CONTENTS

I. Introduction

Richland/Wilkin Joint Powers Authority (JPA) is a joint powers entity formed under both Minnesota and North Dakota joint powers laws. The JPA has represented the two counties, townships and residents in efforts to assure that the Fargo-Moorhead Flood Risk Management Project is configured in a way that complies with Minnesota and federal law. JPA is impacted in a variety of ways by the proposal under review:

- The project removes over 40 square miles of natural floodplain storage, thus impairing the flood carrying capacity of the Red River.

- Like the LPP ruled unlawful by the Commissioner's order, the project transfers floodwaters previously stored naturally on the floodplain onto lands upstream

- The project under consideration, like the LPP, violates local and regional law governing water and land resources as well as Minnesota public waters law and policy

- JPA has commenced judicial and administrative proceedings to protect environmental resources. JPA's right to protect the environment has been recognized in both litigation and administrative forums under the Minnesota Environmental Rights Act (MERA). JPA initially brought a MERA claim in federal court (under the Court's supplemental jurisdiction) to establish Diversion Authority's obligation to refrain from conduct that requires a Minnesota public waters permit. Its right to bring a MERA claim was perfected by the required statutory notice and service and publication. Minn. Stat. § 116B.03. This project is a modification of the LPP and like the LPP constitutes a "per se" violation, because it involves harm to the environment in violation of statute, rule, or permit requirement.

JPA writes here seek to make the following major points:

1. **The scope of the DNR's previous environmental review addressed only unpermittable, illegal alternatives** (other than the no action alternative). All addressed alternatives were correctly found by the Commissioner to violate a myriad of statutes, regulations and policies. In short, we now know that the scope of original state EIS did not examine a single lawful feasible alternative. The Plan B now under review is predicated on the same design characteristics that rendered the LPP unlawful. **As a result, the supplemental environmental review proposed by the scoping document would be completed without examining a single lawful feasible alternative.** 38 a

2. **The scoping decision does not include a single feasible alternative that meets the requirements of Minn. Stat. § 116D.04 subdivision 6.** One of the central functions of the Minnesota environmental review is to provide all governmental authorities with decision making power information necessary to determine "whether there is a feasible and prudent alternative consistent with the reasonable requirements of the public health, safety, and welfare and the state's paramount concern for the protection of its air, water, land and other natural resources from pollution, impairment, or destruction." The proposed scoping document fails to perform that function, because it examines none of the feasible and prudent alternatives meeting the section 116D.04 criteria. 38 b

3. **JPA North Dakota Diversion Must be Studied.** The JPA has proposed a North Dakota diversion that meets the underlying project purpose. Although not critical to the underlying purpose, its levees can be FEMA certified. It provides full 38 c

protection to existing development in Fargo and Moorhead. It satisfies the conditions of the Commissioner's order, including preserving natural floodplain storage. Hydrological modelling demonstrated that this alternative will dramatically reduce the volume of floodwater produced by a diversion. See Anderson, Fox and Aaland declarations attached as Exhibits A, B and C, respectively. That alternative should have been included in the scoping decision.

4. **An Enhanced NED -- Minnesota Diversion Meets Section 116D.04 subdivision 6 criteria.** This same modelling confirms that a Minnesota diversion similar to the NED is feasible, practical and dramatically reduces or eliminates the need to store waters on the four-county area. A NED project would require far less storage than the LPP or Plan B. The Minnesota Diversion was wrongly rejected by the first scoping decision, because an LPP with storage, with enhanced flows through town, with certified levees was wrongly compared to a Minnesota diversion without any storage, without enhanced flows through town, and without certified levees. The LPP costs one billion dollars more than the Minnesota Diversion not included in the scoping decision. With only a small portion of that extra one billion dollars, the Minnesota Diversion could be enhanced and that enhanced diversion would clearly meet Section 116D.04 subdivision 6 criteria. 38 d

In sum DNR should apply the criteria developed by the Commissioner's order to the newly proposed Plan B. Since Plan B violates the principles established by the Commissioner's Order, and the application should be dismissed. Then, in the event that Diversion Authority signals its willingness to pursue a lawful, permittable alternative, the DNR should study two alternatives not designated in the proposed scoping decision:

(1) The JPA proposed North Dakota Diversion;

(2) An enhanced Minnesota Diversion that modifies the NED to provide appropriate enhancements: (1) Levees build to FEMA certified criteria; (2) the flow-through town and related improvements added to the LPP; and (3) DNR should study the benefits of a network of distributed storage would dramatically reduce flood flows, eventually by 20%. Since the NED project has a price tag of one billion dollars less than the LPP, there is plenty of fiscal room to make these improvements.

II. Quotations from the Record Demonstrate that Feasible Superior Alternatives Meeting the Underlying Project Purpose Exist but Have Been Excluded from Scoping.

Before we get to the core of JPA's comments the following quotations from the record may help put the issues in perspective. These quotations make it quite clear that it is possible to provide Fargo and Moorhead with a high level of protection without transferring floodwaters from the natural floodplain onto other communities. We will show, in fact, that there exist at least two reasonable feasible alternatives to provide flood protection to Fargo and Moorhead at a reasonable cost and without transferring floodwaters from 50 square miles of Fargo's floodplain onto other communities. The following citations from the record demonstrate that other alternatives must be studied.

(1) Commissioner's Order Denying Permit

> Responsible floodplain management maximizes the natural and beneficial uses of the existing floodplain, especially undeveloped floodplain, and minimizes the expansion of the floodplain, especially where there is existing development……the proposed Project (LPP) would remove 17,000 structures and a large undeveloped land area from the existing regulatory floodplain. Conversely, the proposed Project would expand the floodplain upstream of the embankment requiring removal or mitigation of structures in this expanded floodplain area. Commissioner's Order Denying Permit ¶ 172.

(2) DNR Letter Objecting to Selection of LPP

> The Feasibility Report planning objectives and constraints provide a template and parameters that, if adhered to, would likely result in a project that (as taken from the Feasibility Study);
> - Reduces flood risk and flood damages in the Fargo-Moorhead metropolitan area.
> - Restores or improve degraded riverine and riparian habitat in and along the Red River of the North. Wild Rice River (North Dakota). Sheyenne River (North Dakota), and Buffalo River (Minnesota) in conjunction with other flood risk management features,
> - Provides additional wetland habitat in conjunction with other flood risk management features, and

- Provides recreational opportunities in conjunction with other flood risk management features.
- Avoids increasing peak Red River flood stages, either upstream or downstream
- Minimizes loss of floodplain in accordance with Executive Order 11988, Floodplain Management

(3) 2008 USACE Reconnaissance Report

Of the nine diversion plans investigated in preliminary screening, five provided positive net benefits and four did not. The Minnesota Short Diversion plans significantly outperformed the Minnesota Long Diversion plans, providing average annual net benefits ranging from $2.5 million to $11.0 million. The smallest diversion, with a channel capacity of 25,000 cfs, provided the greatest net benefits and had a benefit to cost ratio (BCR) of 1.22. **None of the North Dakota plans were found to be cost effective, with BCRs ranging from 0.91 to 0.95 and average annual net benefits ranging from $6.7 million to $3.1 million.** At an optimal capacity, a diversion would be highly cost effective. (AR0054197) (emphasis added). April 8, 2008 Reconnaissance Report for the Fargo Moorhead Metropolitan Area (See July 2011FEIS Appendix O: AR0054007)

(4) USACE EIS PRONOUNCEMENTS

Upon further study of **the North Dakota 35,000 cfs channel alternative** (ND35K) using current modeling, the Corps determined that it **would have widespread impacts to infrastructure downstream.** Given the unacceptability of logistical problems with trying to mitigate for widespread downstream impacts, **the ND35K is not a practicable alternative based on current modeling.** (April 2011 Supplemental Draft Fargo-Moorhead Metro Feasibility Report, Attachment 1 (Section 404(b)(1) Evaluation), p. 3). **The North Dakota alignment has greater downstream effects than the Minnesota alignments.** (Appendix O, §7.5.3.4.2, p. O-55). **North Dakota alternatives generally have more natural resource impacts than the Minnesota alternatives because they [ND alternatives] cross five tributary streams.** (Appendix O, §7.5.3.4.4, p. O-55).

(5) February 2010 Commissioner Mahoney interview:

"Project managers from the U.S. Army Corps of Engineers said in no uncertain terms Thursday that Fargo-Moorhead's best shot at getting federal funds for a Red River diversion channel is to choose a Minnesota diversion."

> …. **to get the project approved, and to have it affordable for taxpayers, it looks like a Minnesota diversion should be the local choice.** "The time frame is extremely critical. ... We have to pick a plan, it has to be a NED plan," he said.

In the face of these pronouncements it is inconceivable that that the original Minnesota scoping decision excluded a Minnesota diversion and studied only the one unlawful unpermittable North Dakota Diversions that develops 50 square miles of floodplain. There is something radically wrong with the way the Department has approached scoping for this project. The purpose of an environmental review is to examine feasible and **practicable reasonable** alternatives. When an environmental review fails to accomplish that objective, it fails of its essential purpose. The Minnesota environmental review was deeply flawed because:

- The scoping decision included only non-permittable unlawful alternatives, each of which violated the fundamental flood control principles as announced in the Commissioner's order denying a permit for the LPP. It was transparent from the start, that the LPP had not been designed to comply with the Minnesota permitting requirements.

- The Minnesota EIS excluded alternatives that clearly meet the underlying project purpose and which are clearly environmentally superior.

- The Minnesota EIS did not subject alternatives to the most important vetting criteria: whether the alternative was permittable and thus feasible. As a result, the study merely compared one unlawful unfeasible alternative to other unlawful unfeasible alternatives, leaving decision makers without any guidance in their permitting functions.

- Modelling conducted as a result of the governors' task force process demonstrates that a diversion project that avoids compromising the natural floodplain storage functions of the floodplains outside of Fargo can be constructed without significant downstream and upstream effects. See Anderson, Aaland and Fox declarations, Exhibits A, B and C. This modelling demonstrates that the JPA version of a North Dakota diversion or a properly configured Minnesota diversion will meet the underlying project purpose, produce high quality protection for Fargo and Moorhead, and do so without flooding major parts of four counties. The proposed scoping decision unlawfully excludes those two alternatives.

The modelling results referred to above demonstrate that exclusion of the NED alternative was based upon erroneous data and erroneous reasoning. We discuss this problem below in detail. To summarize that discussion, the 2010 design of the NED and LPP was based upon erroneous hydrological modelling by the USACE that made it appear that both NED and LPP could be operated without causing unacceptable downstream flooding. However, a few days before the end of the comment period for the Federal Environmental Impact Statement, USACE revealed that actually, LPP would increase peak hundred-year flood stages more than two feet higher than without the diversion. (The Minnesota diversion would have cut those stage increases in half: the difference in stage increases resulting from the fact that the LPP eliminated 50 square miles of floodplain storage.)

To address these problems, even though NED was adjudged superior to LPP, USACE decided to add enhancements to the LPP, but to leave NED unchanged. By improving the LPP, but making no improvements to the NED, Diversion Authority could make it appear that the NED was no better than the LPP, and DNR bought that hook, line and sinker. Diversion Authority reasoned that the excess flow could be reduced by building FEMA certified levees to run additional water through Fargo. The proposed LPP was altered this way, but the USACE recommended NED was not similarly improved. A dam, staging and storage was added to the LPP to transfer waters previously stored on the natural floodplain onto higher ground in four counties. This change was wrongly treated for environmental review purposes as an environmental improvement, eliminating the downstream impacts of the LPP, even though it merely transferred the negative impacts from downstream communities to upstream communities.

The NED had a significantly smaller additional downstream peak stage flow. As a result, modest changes to the NED could have been added to the Minnesota diversion to address the downstream issues. It could have been modified to add additional flows through town. Its levees could have been upgraded to meet FEMA standards, if indeed that was actually required. A much smaller amount of storage could have been added, including distributed storage to reduce the flows during operation. But DNR improperly ruled out any evaluation of an improved NED project, because evidently Diversion Authority wanted to develop Fargo's floodplain, and the NED would not accomplish that objective.

DNR wrongly asserted that the NED project was not environmentally superior to the LPP. But that comparison was completely wrong: It was based upon the pretense that building a dam and flooding farms and communities upstream of Fargo at depths of up to 10 feet was not an environmental impact. Fortunately, the Commissioner's permit decision rejected that concept soundly. The recent modelling shows that with modest alternations the NED project could dramatically reduce the intentional flooding of four counties, and as a result the NED project can no longer be excluded. The new scoping decision should remedy these defects by considering the two practical alternatives that lawfully meet the underlying purpose.

III. Procedural History of Project Development Environmental Reviews Demonstrates that Two Environmentally Superior Projects Meet the Underlying Purpose of Flood Mitigation.

Both the JPA North Dakota Diversion and a properly enhanced Minnesota Diversion (NED) would meet the underlying flood mitigation purpose contemplated for the Fargo-Moorhead flood mitigation project. A review of the five-year record of the USACE's phased feasibility review demonstrates beyond any conceivable doubt, that the Minnesota Diversion (NED) project meets the underlying purpose of providing flood control for Fargo and Moorhead.

The only problem with the NED is that it was left unchanged when USACE revealed that its modelling had understated downstream impacts. Having discovered that the LPP raised peak downstream 100-year flood stages by 2 feet, while the NED raised downstream raised peak downstream 100-year flood stages by only 1 foot, the natural solution would be to tweak the NED to reduce its downstream impacts. Instead, USACE left the NED alternative unmodified, but proposed a dam, staging and storage to transfer the waters the LPP would cast downstream, onto upstream communities.

The comparison between the new LPP and the NED which led to the original DNR scoping decision was thus bankrupt and misleading. The NED was left unmodified, even though a much smaller, less damaging alteration to the NED could have been designed and compared and that would have shown that a NED alternative existed which could meet all underlying project purposes and could have done so with significantly reduced impacts. Section 116D.04 subdivision 6 requires that this alternative be considered. The NED has a price tag that is one billion dollars less than the LPP. Surely, the scoping decision should include a Minnesota Diversion that is improved using some of that cost difference to make the NED better.

Moreover, recent modelling establishes that a North Dakota Diversion that avoids floodplain development is also feasible and environmentally superior. Through a series of legally flawed contortions, the Diversion Authority has manipulated project comparisons to evade that central fact.

USACE Feasibility Studies Properly Focused on a Minnesota Diversion Avoiding floodplain Development

Intensive USACE phased feasibility studies of flood control alternatives span the period from 2005-2010. These feasibility studies carefully focused on the underlying project purpose: to provide reasonable flood protection to developed areas of Fargo and Moorhead. And,

throughout that entire period, USACE and local project sponsors repeatedly focused on Diversions which avoid development of the rural undeveloped floodplain[1].. See Upstream Feasibility study (AR0000001) Fargo-Moorhead and Upstream Feasibility Study Project Management Plan April 5, 2008. AR 0000023 The basic premise of project design was to be a:

> "regional approach" that considered "future development trends throughout the drainage basin and its potential effects on flood frequency, peak flows, time to concentration, and duration. Id.[2]

In its official letter of August 2010, the Minnesota DNR described the key components of project design as follows:

> *The Feasibility Report planning objectives and constraints provide a template and parameters that, if adhered to, would likely result in a project that (as taken from the Feasibility Study);*
>
> - *Reduces flood risk and flood damages in the Fargo-Moorhead metropolitan area.*
> - *Restores or improve degraded riverine and riparian habitat in and along the Red River of the North. Wild Rice River (North Dakota). Sheyenne River (North Dakota), and Buffalo River (Minnesota) in conjunction with other flood risk management features,*
> - *Provides additional wetland habitat in conjunction with other flood risk management features, and*
> - *Provides recreational opportunities in conjunction with other flood risk management features.*
> - *Avoids increasing peak Red River flood stages, either upstream or downstream*
> - *Minimizes loss of floodplain in accordance with Executive Order 11988, Floodplain Management*[3]

---

1 Federal studies include the following: September 2005, Upstream Feasibility study (Federal AR0000001) (advocating regional approach to flood control); Reconnaissance Report for the Fargo Moorhead Metropolitan Area (Federal AR0054007) (finding that only Minnesota diversions have positive benefit-cost ratio); Phase 2 alternative screening, (Minnesota short diversion by far the most cost effective, North Dakota diversions are not cost effective); May 2010 (Draft Federal EIS designating Minnesota Diversion as NED project and designating the LPP as Diversion Authority's preferred project); Draft FM Metro Feasibility Study: Preliminary Downstream Impact Analysis (identifying previously undisclosed LPP downstream impacts); March 2011: Supplemental Draft Feasibility Report and EIS; July 2011 Federal Final EIS.

2 AR0000026, Id. Phase 3: Detailed planning and design part h. pg.4

3 DNR letter to Aaron Snyder, August 2010, AR0056199

On April 8, 2008 the USACE issued its Reconnaissance Report for the Fargo Moorhead Metropolitan Area (See July 2011FEIS Appendix O: AR0054007; 356 pages). The Report found as a preliminary matter that the best project to meet the underlying purpose of proving flood protection to the Fargo-Moorhead metropolitan area was a Minnesota Diversion:

> Of the nine diversion plans investigated in preliminary screening, five provided positive net benefits and four did not. The Minnesota Short Diversion plans significantly outperformed the Minnesota Long Diversion plans, providing average annual net benefits ranging from $2.5 million to $11.0 million. The smallest diversion, with a channel capacity of 25,000 cfs, provided the greatest net benefits and had a benefit to cost ratio (BCR) of 1.22. **None of the North Dakota plans were found to be cost effective**, with BCRs ranging from 0.91 to 0.95 and average annual net benefits ranging from $6.7 million to $3.1 million. At an optimal capacity, a diversion would be highly cost effective. (AR0054197) (emphasis added).

North Dakota Diversions were not cost effective, USACE found, because a diversion would have to be constructed across multiple tributaries, and because the diversions would be significantly longer and thus more costly. **Only the Minnesota diversions efficiently met the underlying purpose of the project.**

Throughout five years of careful analysis USACE recognized that both Minnesota and North Dakota diversions would satisfy the project purpose, but the USACE repeatedly found that Minnesota diversions were the only alternatives that could meet that purpose in a cost-effective way. Table 1 reproduced below, taken from the 2009 Phase 2 screening document demonstrates USACE's recognition that Minnesota diversions meet the underlying project purpose of the project. If they did not, those alternatives would not have been modelled, nor would they have been selected as feasible alternatives.

Table 1 – Phase 2, Screening #1 cost-effectiveness analysis results

Fargo-Moorhead Metro Feasibility Study Initial Screening Results, October 2009 Screened Alternatives Ranked by Net Benefits

		Avg Annual Net Benefits *	Residual Damages *	
MN Short Diversion 25K	962	11.0	14.3	1.22
MN Short Diversion 35K	1,092	9.4	9.3	1.17
Levee 1% chance (100-year)	902	7.7	20.9	1.17
MN Long Diversion 25K	1,055	5.6	15.0	1.10
MN Short Diversion 45K	1,264	2.5	7.4	1.04
MN Long Diversion 35K	1,260	0.3	9.8	1.00
ND East Diversion 35K	1,337	-3.1	9.2	0.95
ND West Diversion 35K	1,363	-4.4	9.2	0.94
Levee 2% chance (50-year)	840	-5.3	37.1	0.88
ND West Diversion 45K	1,439	-6.7	7.6	0.91
MN Long Diversion 45K	1,459	-8.3	8.2	0.89

* In millions of dollars

It defies credulity to now suggest that these very project alternatives that were studied for years, and repeatedly identified not only as meeting underlying project purpose, projects identified as **the only projects that produce positive net benefits**, are now eliminated entirely from consideration in the Minnesota alternative reviews[4].

[4] DNR rationalized its exclusion of the Minnesota diversion based upon an assertion that the NED is environmentally indistinguishable from the LPP, but that conclusion has now been demonstrated to be false. The purpose of studying an alternative is to collect information, and when the LGU arbitrarily excludes an alternative, it produces errors.

By February of 2010, the USACE informed the diversion authority's members that Minnesota Diversion would be selected as the National Economic Development (NED) project, that is the project that best met the national economic development objects, provided the flood control benefits desired by the local sponsor, and which minimized environmental impacts. As Mr. Fox's declaration (attached as Exhibit B) explains, even Diversion Authority leadership recognized the validity of USACE's 2010 designation of the Minnesota Diversion as the best least impact choice and actually urged that the Minnesota diversion should be constructed. Fox declaration ¶ 25. In a February 2010 presentation, the Fargo Forum reported,

> "Project managers from the U.S. Army Corps of Engineers said in no uncertain terms Thursday that Fargo-Moorhead's best shot at getting federal funds for a Red River diversion channel is to choose a Minnesota diversion[5]."

The Fargo Forum continues, quoting Commissioner Mahoney as stating:

> … to get the project approved, and to have it affordable for taxpayers, it looks like a Minnesota diversion should be the local choice. "The time frame is extremely critical. ... We have to pick a plan, **it has to be an NED plan,"** he said. (emphasis added).

Incredibly, the original Minnesota Environmental review, and now this supplemental review actually excludes from consideration a project solution that was designated by the USACE and the Diversion Authority's own leadership not only as a project worth considering, but the project that ought to be selected. As stated elsewhere, that exclusion cannot be justified based on the claim that the NED project is environmentally the same as the LPP: it is not. First, that exclusion criteria is invalid because the LPP has been found to be illegal and unpermittable, whereas the NED has not been found to be illegal and unpermittable. Second the NED was excluded based evidently, on the fact that without any storage, the NED creates a small downstream stage

---

[5] Fargo Forum February 5, 2010.

increase, whereas the LLP supposedly reduces stage increases to tolerable levels, using storage. However, that analysis treats massive flooding of upstream communities as environmentally inconsequential. Third, exclusion of the NED was based upon intentional failure to consider enhancements to the NED design that would remedy concerns.

In 2010, acting under faulty advice from USACE that the LPP could be built without causing compensable downstream flooding, Diversion Authority members selected the LPP as their preferred alternative. The LPP violated every fundamental flood management principle imaginable, and flagrantly violated numerous statutory permitting requirements. The project transfers floodwaters from the undeveloped floodplain onto other communities and regions. In fact, the project was not even developed to comply with Minnesota permitting standards, but rather it was developed in defiance of those standards. As the Commissioner's order explain, responsible floodplain management minimizes expansion of the floodplain

> Responsible floodplain management maximizes the natural and beneficial uses of the existing floodplain, especially undeveloped floodplain, and minimizes the expansion of the floodplain, especially where there is existing development……the proposed Project would remove 17,000 structures and a large undeveloped land area from the existing regulatory floodplain. Conversely, the proposed Project would expand the floodplain upstream of the embankment requiring removal or mitigation of structures in this expanded floodplain area. Commissioner's Order Denying Permit ¶ 172.

Over a million dollars of public resources have already been spent studying a patently unpermittable project, and patently unpermittable alternatives to that project, while excluding study of project alternatives that are potentially unpermittable.

Last Minute Discovery Results in Federal Supplemental EIS

On June 11, 2010, USACE released its first draft feasibility and environmental impact statement for the Fargo-Moorhead Flood Mitigation Project. As we have stated, the Federal feasibility study had focused on two primary alternatives, a Minnesota Diversion -- with an

estimated cost of about $1 billion--, and a North Dakota Diversion, with an estimated cost that now exceeds $2 billion. The North Dakota Diversion would be more expensive for a number of reasons. Its diversion channel would cross multiple tributaries of the Red River and circumnavigate Fargo to the west making it longer and more demanding from an engineering perspective. It was intentionally routed so that it would run through the floodplains south and northwest of Fargo. Additional levees would guide floodwaters off those floodplains and into the diversion channel, allowing Fargo to expand into 50 square miles of floodplain. As a result, the North Dakota Diversion would need to dispose of significantly more water, in order to keep the former floodplains dry.

In July of 2010, after downstream communities asserted that removal of 50 square miles of flood storage most certainly would have major downstream impacts, USACE reran their hydrological modelling more carefully. The results showed that, in fact, the North Dakota Diversion would produce dramatically higher stage increases than the Minnesota Diversion. USACE's new computations estimated that for a 100-year flood event, the Minnesota (NED) project would produce a maximum stage increase downstream of 14 inches. The new computations estimated that for a 100-year flood event, the LPP would produce a maximum stage increase downstream by 25 inches, that is, more than two feet[6]. The difference between these two stage flow increases, as estimated, resulted from the fact that the LPP was designed to foster development of 50 square miles of floodplain, south and northwest of Fargo. To make that development possible, it would be necessary for the LPP to divert water off of the natural floodplain and drive it down the diversion.

---

[6] Draft Fargo-Moorhead Metro Feasibility Study Page 4 Preliminary Downstream Impact Analysis July 2010 page 4.

At this point, USACE acknowledged that a supplemental EIS would be required to address alternatives in light of the fact that the LPP, which Diversion Authority preferred, could not be built as designed. Moreover, the USACE acknowledged that:

> Upon further study of the North Dakota 35,000 cfs channel alternative (ND35K) using current modeling, **the Corps determined that it would have widespread impacts to infrastructure downstream.** Given the unacceptability of logistical problems with trying to mitigate for widespread downstream impacts, **the ND35K is not a practicable alternative** based on current modeling. (April 2011 Supplemental Draft Fargo-Moorhead Metro Feasibility Report, Attachment 1 (Section 404(b)(1) Evaluation), p. 3). The North Dakota alignment has greater downstream effects than the Minnesota alignments. (Appendix O, §7.5.3.4.2, p. O-55). **North Dakota alternatives generally have more natural resource impacts** than the Minnesota alternatives because they [ND alternatives] cross five tributary streams. (Appendix O, §7.5.3.4.4, p. O-55).

USACE allowed Diversion Authority to select the LPP without considering Minnesota permitting requirements. To solve that problem, USACE and Diversion Authority concocted a theory that the authorization of the project by Congress wiped out the requirements for Minnesota permitting, even though the federal EIS actually stated that Minnesota permitting was a required condition of the project authorization.

DNR Scoping Compares Modified LPP to Unmodified NED Leading to Improper Exclusion of NED

At this point, the USACE had made the following determinations:

- That the North Dakota alternatives generally have more natural resource impacts than the Minnesota alternatives
- That the North Dakota alignment has greater downstream effects than the Minnesota alignments
- That the North Dakota 35K "is not a practicable alternative based on current modelling"
- That the Minnesota Diversion constituted the National Economic Development project because it is significantly less expensive than the North Dakota alignments, and because of its superior environmental performance.

When the Diversion Authority advanced the LPP for permitting, DNR's scoping decision excluded all alternatives except the alternatives identified by Diversion Authority as acceptable

to Diversion Authority (and the mandatory no-action alternative). DNR adopted an approach that allowed the project proponent to define out of consideration any and all alternatives that Diversion Authority didn't want to consider. There are various rationalizations for why that was allowed to occur, but the net result was to include from consideration any permittable alternatives and the very project that USACE itself had selected as superior.

In its scoping comments, JPA urged the DNR to consider the Minnesota Diversion, because it is priced at half the cost, and because it dramatically reduces the impacts. The impacts are reduced, because the Minnesota Diversion eliminates the unlawful rural floodplain development feature which played a central role in the Commissioner's order, paragraph 172 quoted above. While the DNR seems somehow to have rejected that assertion, recent modelling completely vindicates our position that NED would be dramatically superior from an environmental standpoint. See Anderson Affidavit, Exhibit A. That new modelling demands that the NED alternative be reinstated as an alternative.

JPA also urged the Department to consider at least one North Dakota diversion that would be configured so as to avoid developing the rural undeveloped floodplain. Minnesota law requires the Commissioner Section 103G.245 subdivision 9(b) bars

> issuance of public waters permits involving the control of floodwaters by structural means…. Only after the commissioner **has considered all other flood damage reduction alternatives.**..

Refusing to consider all other flood damage reduction alternatives in the EIS, would not only hamstring the Department's environmental review by ruling out other project alternatives that meet the underlying purpose, but it would also hamstring the ability of other governmental units that have related permitting functions. The reason that an environmental review is conducted by a single selected Responsible Governmental Unit, is to supply information to all

other permitting units as well as the project proposer. Minnesota law bars a governmental project proposer from making a final selection of the governmental project alternative until the environmental review is conducted, and Minnesota law bars governmental permitting authorities from making final permitting decisions unless and until the environmental review is complete. When the department rules out reasonable feasible alternatives it

- makes it impossible for the governmental proposer itself to consider reasonable alternatives with comparative data
- leaves the Commissioner without the data that he needed to consider "all other flood damage reduction alternatives" as required by law
- leaves other permitting agencies without the information they needed to consider permitting with the sequencing information they need under MEPA and their own permitting regulations.

As we predicted at the time, the result of this arbitrary exclusion was that ***the only alternatives considered in the DNR's environmental review were unpermittable, and thus unfeasible, projects.*** Unfortunately, this new scoping proposal intends to take a second ride on this merry go round. The public interest is not served to continually conduct one environmental review after another in which the only proposal considered is one that patently violates Minnesota law, and in which all legally compliant alternatives are arbitrarily excluded.

Rule 408 Settlement Process Produces Two Feasible Alternatives

In October of 2017, DNR invited the parties to agree to a stay of all proceedings in return for what was represented to be an attempt to settle the pending litigations with an agreement. The scoping description of the task force and subsequent deliberations is materially incomplete.

See declarations of Tim Fox (Exhibit B), Charles Anderson (Exhibit A), and Cash Aaland (Exhibit C). First, through some political process not made transparent, the two governors barred the task force from considering the Minnesota NED project. While governors can conduct extra-legal discussions as they deem appropriate, Minnesota law does not recognize a process whereby governors exclude alternatives based on extra legal considerations. Indeed, the exclusion of the Minnesota diversion directly contradicts the Governor's commitment that DNR's consideration would be based on law and evidence, not politics.

Second, the scoping notice fails to acknowledge that JPA advanced a North Dakota diversion alternative that seeks to fix the legal defect identified by the Commissioner's order, paragraph 172 above. As stated above, since 2013, JPA has been urging, with engineering expert support, that if project designers were instructed to design a project consistent with the principles articulated in the Commissioner's order, that the design would dramatically reduce impacts. The modelling conducted vindicates JPA's position. A project that preserves floodplain storage, as called for in Commissioner's order paragraph 172, produces outstanding flood protection for Fargo and Moorhead but dramatically reduces the need for staging and storage. The JPA alternative was modelled using USACE software and geometrics, and as described in the accompanying affidavits, shows that a North Dakota Diversion can protect Fargo and Moorhead, can satisfy Commissioner's paragraph 172, and drastically reduce impacts. Moreover, as the affidavits explain, the Plan B advanced by Diversion Authority was not even vetted against the Commissioner's permit conditions, but rather was designed to maximize development of the floodplain at the expense of upstream communities. This same modelling, if applied to the NED project would produce the same results.

IV. DNR's Environmental Reviews Have Improperly Studied Only Illegal Alternatives: The Proposed Scoping Must Be Expanded to Permittable Alternatives

A. The Scoping Decision is Inadequate Because it Does Not Compare Feasible, Lawful, Permittable Alternatives.

One of the main purposes of an EIS is to examine potential impacts of project alternatives. (EQB Guide to Minnesota Environmental Review (2010) p 28.) The alternatives review plays a special role in projects sponsored by Minnesota government, because the project proposer itself is bound by Minnesota's least impact feasible alternative requirement. Minn. Stat. §116D.04 subdivision 6. As a result, central to a Minnesota environmental review is to develop information that assists the LGU, a project proposer, and all permitting authorities to determine whether the favored proposal meets the proposer's burden to show that there exists no feasible and prudent alternative to the consistent with and reasonably required for the promotion of the public health, safety, and welfare. See Minn. St. 116B.04.; Minnesota Pub. Interest Research Grp. v. White Bear Rod & Gun Club, 257 N.W.2d 762, 781 (Minn. 1977).

In this regard, the Minnesota environmental review plays a different role from a federal environmental review, and the Minnesota alternatives review must be correspondingly robust. A federal government proposer (involving a project that does not also require a state permit) is ordinarily free to select a project alternative that is not the environmental least impact feasible project. In contrast, because MEPA imposes a substantive requirement that a government proposer select a section 116D.04 compliant project, MEPA requires a wide ranging and robust alternatives review. When, as here, the scoping decision proposes to study only one project, and an unpermittable one for that matter, it fails of its essential purpose. A project proposed by a political subdivision of the state of Minnesota needs the broadest possible scoping decision.

Federal NEPA decisions have approached the scope of review from two perspectives. The narrow approach has reasoned that since a federal proposer has no obligation to select the least impact project, there is no reason to question the narrowness of the range of alternatives deemed study worth by the proposing agency. But another strand of NEPA cases has emphasized the importance of a robust and meaningful alternatives of review. These cases are in harmony with the letter and spirit of MEPA. Cases adhering to this broad scope explain that the importance of the alternatives section of the EIS to the NEPA process has been stressed repeatedly . . .

> It is absolutely essential to the NEPA process that the decision maker be provided with a detailed and careful analysis of the relative environmental merits and demerits of the proposed action and possible alternatives, a requirement that we have characterized as "the linchpin of the entire impact statement", Monroe County Conservation Society, Inc. v. Volpe, 472 F.2d at 697-98. Indeed, the development and discussion of a wide range of alternatives to any proposed federal action is so important that it is mandated by NEPA when any proposal "involves unresolved conflicts concerning alternative uses of available resources," 42 U.S.C. s 4332(2)(D). This requirement is independent of and of wider scope than the duty to file the EIS, Trinity Episcopal School Corp. v. Romney, 523 F.2d 88 at 93 (2d Cir. 1975); Environmental Defense Fund, Inc. v. Corps of Engineers, 492 F.2d 1123, 1135 (5th Cir. 1974).

The practical result of the supplemental environmental review proposed scoping decision would be to consider a group of projects already found to be unlawful and unpermittable. Those projects were the LPP and minor variations of the LPP, each of which removed 50 square miles of floodplain storage, to promote unnecessary development of that floodplain, and to transfer those floodwaters onto four counties. In short, none of those studied alternatives were feasible. As of the completion of the original EIS, not one alternative studied in the review process was lawful or feasible. The essence of the supplemental scoping document would be to add one

further project alternative to the study, and that project alternative again promotes massive development of the floodplain. It differs only in the exact location of flood transference.

Even if one assumes hypothetically that the new Plan B is potentially permittable, the entire environmental review process will have studied only one potentially permittable project, and excluded from the scope of review, two alternatives that are plainly superior. Unless this scoping decision is modified to include multiple permittable alternatives, the resulting review will violate MEPA's minimum requirements.

The problem with the first project proposal and the scoping that resulted was that the LPP was specifically designed to foster the development of floodplain storage. That design element – developing 50 square miles of floodplain and destroying the floodplains storage function --was the direct cause of increased flows that the dam, staging and storage were added to mitigate. The Commissioner has now ruled that this component of the project was and is illegal. Yet, the only project alternatives considered under the original scoping decision (other than the no action alternatives) were other iterations of the LPP, and they all were designed to develop 50 square miles of floodplain. After those alternatives were swept away by the Commissioner's permit order, the entirety of the Minnesota environmental review amounted to a comparison of illegal unpermittable alternatives.

The scoping process should begin by determining whether the project proposal and any alternatives are actually feasible and a project that is not permittable surely is not feasible. To determine feasibility in this context, an alternatives review should examine both the new project proposal and any alternatives against the criteria set by the commissioner in his permitting order. Among those criteria are:

- **Comparison with No Action Alternative.** the primary benefits of the proposed Project over the No Action Alternative with Emergency Measures in the F-M

metropolitan area are economic benefits. Economic considerations alone are not sufficient to meet the permitting criteria set forth in state law including Minn. Stat. § 116D.04, subd. 6, Minn. Stat. Ch. 116B and Minn. R. Minn. R. 6115.0200, subp. 5C 6115.0250, subp. 1a (2) ¶ 147.

When compared against the proposed Project, the No Action Alternative with Emergency Measures is the minimum impact solution to address flooding in the F-M metropolitan area within the meaning of Minn. Stat. §103G.245, subd. 7a (2014). The No Action Alternative with Emergency Measures is a feasible and prudent alternative to the proposed Project within the meaning of Minn. Stat. Ch. 116B and Minn. Stat. § 116D.04, subd. 6 (2014). ¶ 148.

Nothing about the proposed Plan B changes this result.

- **Lack of other suitable feasible sites.** The Permit Applicant has failed to establish that there is a "lack of other suitable feasible site[s]" as required by Minn. R. 6115.0410, subp. 8A. (2015). As outlined in ¶¶ 17, 20 – 21, 32, and 52 the DNR concludes that the No Action Alternative with Emergency Measures is a suitable, feasible, and prudent alternative to the proposed Project within the meaning set forth in Archabal v. County of Hennepin, 495 N.W. 2d 416, 422 (Minn. 1993).

  Nothing about the proposed Plan B changes this result. Not only is the Commissioner's No Action Alternative feasible and prudent, but there are two other alternatives, the Minnesota Diversion suitably modified, and the JPA North Dakota Diversion that are prudent and feasible.

- **Floodplain Development** The proposed Project appears to be inconsistent with the underlying intent of E.O. 11988 and E.O. 13690. The proposed Project does not preserve or rely on natural floodplain storage. Rather the USACE, as a contractor for the Permit Applicant, would construct a project that would permit development in over 39,000 acres of sparsely developed natural floodplain on the outskirts of the F-M metropolitan area. This natural floodplain would no longer be available for flood storage. The proposed Project would alter the natural flow of the Red River to create approximately 20,000 acres of new floodplain in sparsely populated areas south of the proposed dam. Much of this acreage is currently outside of the natural floodplain

  Nothing about the proposed Plan B changes this result. The Plan B develops a massive floodplain area, just like the LPP.

- **Sequencing Principles.** It is the policy of the State to reduce flood damage first through floodplain management and nonstructural measures such as floodplain zoning, flood proofing, and flood warnings. ¶ 161-177.

Section 103G.245 subdivision 9(b) bars issuance of public waters permits involving the control of floodwaters by structural means…. only after the commissioner has considered all other flood damage reduction alternatives...

Nothing about the proposed Plan B changes this result. The scoping decision undermines this sequencing requirement, because it fails to provide the Commissioner with the information that he needs to "consider all other flood damage reduction alternatives."

- **Violation of Regional Regulatory requirements.** Section 5 of the BRRWD Rules provides: "Surface water shall not be artificially removed from the upper land to and across lower land without adequate provision being made on the lower land for its passage, nor shall the natural flow of surface water be obstructed so as to cause an overflow onto the property of others." http://www.brrwd.org/pdf/BRRWD_Rules.pdf (last visited September 16, 2016). Portions of the BRRWD that have not previously experienced flooding from the Red River are within the proposed Project inundation area. Should the Project be constructed and operated, these lands would be flooded, which is inconsistent with Section 5 of the BRRWD Rules. Thus, the Project, if permitted, constructed and operated, would violate the BRRWD Rules. ¶187-188.

  Nothing about the proposed Plan B changes this result.

- **Inconsistency with Federal, state and Local requirements.** For the reasons set forth in ¶¶ 154—196 the DNR concludes that the proposed Project is inconsistent with applicable federal, state, and local requirements as required by Minn. Stat. § 103G.245, subd. 6 (2014) and Minn. R. 6115.0190, subp. 5H-I, 6115.0200, subp. 5 I-J, and 6115.0210, subp. 5E, Minn. R. 6115.250, subp. 2 (2015).

  Nothing about the proposed Plan B changes this result.

Plan B is built on the same faulty premise as the LPP before it. Its design is predicated on removal of massive amounts of flood storage; it dramatically reduces the flood water carrying capacity of the Red River, and merely pushes the water to different locations. Once again, the scoping decision avoids practical alternatives and limits the review to the one and only alternative selected by the Diversion Authority, and that alternative is patently illegal.

The purpose of the environmental review is to look at feasible alternatives. See also Vermont Yankee Nuclear Power Corp. v. Natural Res. Defense Council, Inc., 435 U.S. 519, 551, 98 S.Ct. 1197, 55 L.Ed.2d 460 (1978), yet the prior EIS examined only illegal unpermittable

alternatives. At the end of the day, when this environmental review is completed as proposed, the DNR will have examined Plan B, and one illegal unpermittable alternative, the LPP and minor variants of the same illegal project design. At the same time, it will have eliminated the project selected by the USACE as the National Economic Development project, and any and all lawful permittable variants of that project that improve its performance and reduce its impacts further and will have eliminated a North Dakota alternative that clearly satisfies the legal criteria found in the Commissioner's order.

B. MEPA requires that the EIS consider Reasonable Alternatives.

MEPA requires that an EIS consider **"reasonable alternatives"** to a proposed project. Minn. R. 4410.2300(G)[7]. **The EIS shall compare** the potentially significant impacts of the proposal with those of other reasonable alternatives to the proposed project. This requirement must be read in context of MEPA's least impact requirement. Minn. Stat. § 116D.04 subdivision 6. And, it must be considered together with the statutory requirement that the Commissioner prohibits issuance of a permit "only after the commissioner has considered all other flood damage reduction alternatives."

Minnesota Statutes Section 116D.04 subdivision 6 states that:

> No state action significantly affecting the quality of the environment shall be allowed, nor shall any permit for natural resources management and development be granted, where such action or permit has caused or is likely to cause pollution, impairment, or destruction of the air, water, land or other natural resources located within the state, **so long as there is a feasible and prudent alternative** consistent with the reasonable requirements of the public health, safety, and welfare and the state's paramount concern for the protection of its air, water, land and other natural resources from pollution, impairment, or destruction. Economic considerations alone shall not justify such conduct.

---

[7] Alternatives: the EIS **shall** compare the potentially significant impacts of the proposal with those of other reasonable alternatives to the proposed project. Minn. R. 4410.2300(G)

The least impact principle does not condone a comparison of the proposed project based upon the narrow purpose defined by the project proponent. A project proponent cannot, for example, propose to build a cabin on a 50-acre wetland and argue that the project purpose is to build a cabin on the 50-acre wetland, so that there is no feasible and prudent alternative to build a cabin on a different property. A manufacturer cannot propose to build a polluting plant next to a pristine lake and argue that the purpose of the project is to build the plant next to a water source, and so any other alternative fails to meet the project purpose.

The procedural history of this project shows that a diversion which provides protection to developed Fargo and Moorhead but avoids developing the 50 square miles of floodplain south and northwest of Fargo is a "feasible and prudent alternative consistent with the reasonable requirements of public health, safety and welfare…." The Minnesota Diversion is one such alternative. This alternative was actually selected by the USACE as the project that best meets national flood control objectives, and which has the least impacts. It cannot possibly be ruled out as an unreasonable alternative.

Evidence recently developed supports a second alternative, the North Dakota Diversion advanced by JPA. This project alternative was birthed by through the governors' process. It meets every legitimate criterion for a project alternative. The only conceivable rationale for its exclusion would be that the Diversion Authority is seeking to manipulate the process to prevent what is otherwise a compelling outcome. In this connection, we must emphasize that the hydrological review conducted under engineer Anderson's supervision with collaboration by USACE and Diversion Authority engineers, contradicts the original scoping decisions suggestion that the Minnesota Diversion offers no environmental benefits. The modelling conducted establishes that when a diversion project retains the flood storage south and northwest of Fargo,

that in fact, there are major, indeed, massive benefits. DNR's refusal to examine the NED and the JPA North Dakota alternative would be arbitrary and capricious. The JPA proposed alternative provides full and complete protection to Fargo and Moorhead's developed areas. It preserves floodplain, which is a protected natural resource It does so without promoting development of the floodplain, and consequently dramatically reduces

MEPA regulations require that an EIS must address one or more alternatives of each of the following types of alternatives or provide a concise explanation of why no alternative of a particular type is included in the EIS:

a) alternative sites,
b) alternative technologies,
c) modified designs or layouts, modified scale or magnitude, and
d) alternatives incorporating reasonable mitigation measures

The supplemental scoping document will lead to an EIS that considers no alternative sites. All sites previously considered by the process have been found to be illegal and unpermittable. An alternative review must consider feasible sites. The supplemental EIS should also consider the JPA's North Dakota diversion alternative, and the Minnesota Diversion combined with distributed storage. The latest modelling demonstrates huge stage reductions resulting from the use of distributed storage. Both alternatives in combination with distributed storage constitute feasible and practicable alternatives incorporating reasonable mitigation measures.

C. JPA's Alternative and the NED Alternative Meet the Underlying Need and Purpose of the Project.

JPA asserts that the supplemental review must examine both the NED alternative and the JPA alternative, as well as the so-called no action alternative. As explained above, the 2014 scoping document incorrectly considered the worst possible iteration of an NED alternative and compared it against an LPP modified to include a dam, staging and storage. Its consideration of

the LPP included all manner of improvements designed to make the LPP look better and perform better. But the Department compared a version of the NED that pre-dates the discovery that the LPP produced vastly more downstream flooding than predicted. And so, when the Department reviewed the NED, it compared an NED without the kinds of modifications that would have been made to adjust the NED to the new conditions as known.

For example, the NED rejected by DNR was a version of the NED that did not involve the through town levee improvements. The NED project rejected for comparison in the EIS did not contain modifications designed to meet Diversion Authority's levee certification requirements. And, the NED rejected by DNR did not include any storage, because again, the Diversion Authority had no interest in modifying the NED project to make it better. The DNR allowed Diversion Authority to make substantial improvements in the LPP to respond to revised USACE information, and then compared that project to an NED project without parallel improvements. The NED project costs one billion dollars less than the LPP: if engineers had been allowed to improve the NED with some of that money, the NED would significantly outshine both the LPP and the new project now under consideration.

An alternative may be excluded from analysis in the EIS only if it would not meet the **underlying need for or purpose of the project,** it would likely not have any significant environmental benefit compared to the project as proposed, or another alternative, of any type, that will be analyzed in the EIS would likely have similar environmental benefits but substantially less adverse economic, employment, or sociological impacts. Minn. Rules 4410.2300(G). Underlying need and purpose is different from need and purpose. It is plainly designed to coordinate with the requirement of section 116D.04 subdivision 6, which prohibits governmental approval when there exists a feasible alternative that is consistent with the public

health and safety. An underlying purpose refers to the basic purpose of a venture; it is not the same as purpose, otherwise the word "underlying" would not be utilized in the regulation. Underlying means basic or fundamental in this context, as distinct from secondary or less important purposes. Excluding the NED project in this context was preposterous, because it is the very project that five years of USACE study yielded that project as the best project to meet the underlying flood control purpose.

Other arguments for exclusion of the NED project are equally unsupportable. We now know, from the Anderson hydrological studies, that a project which refrains from developing floodplain, but rather maintains the natural floodplain storage function, is vastly superior to projects that supplant existing floodplain storage. When it rejected the NED project in the previous scoping document, DNR did so without any data or study, but simply asserted that the NED is no better than the LPP. However, we now have hard data that shows a project that maintains existing flood storage is vastly superior. See Anderson affidavit, Exhibit A. The JPA North Dakota alternative, which the scoping decision completely ignores, similarly provides an improved performance.

Nor is the NED, or the JPA project inferior respecting potential FEMA certification of levees. That too is a fiction. Certification of levees is a function of whether the project design proposes to build the levee at FEMA certifiable heights. While building the levee higher entails some additional expense, the NED project has a price tag of one – billion dollars lower than the LPP. In short, if the NED project were selected, there would be one billion dollars of money left on the table, to construct higher levees.

V. The Red River, its tributaries and floodplain storage constitute public resource which should not be allocated to promote unwise development.

It is important that the upcoming environmental review recognize the basin wide significance of the water storage and conveyance capacity of the Red River, tributaries and its floodplain. The Commissioner's order correctly treats this basin wide capacity as an environmental resource deserving of protection under permitting law and under MEPA. JPA urges the Department's ecological services division to develop an environmental review by beginning with the Commissioner's order and evaluating the application and alternatives against the criteria found in the Commissioner's order. Floodplains, rivers, wetlands, lakes and streams are natural resources, not only because they provide fish habitat and clean water: they exist as a coordinated natural system to manage the flow of waters. Both LPP and now the new alternative B deplete and compromise that resource. 38 e

The Red River basin has established a natural water conveyance and storage equilibrium on which communities have been located, farms and farmsteads and public infrastructure has been established. The City of Fargo is trying to upset that natural equilibrium. The City was located in an area with plenty of room for development. Both the Federal EIS and Fargo's planning documents recognize that there exists sufficient high ground in the metropolitan area to allow development for decades to come. The City's comprehensive plan actually urges development to stop spreading out, and rather to develop more intensively on existing available high ground. What Fargo is now trying to do is to develop low flood prone land which serves an important environmental function, and to do so at the expense of families and communities that located themselves on high ground. It is an attempt to use state and federal taxes to develop land that should not be developed at the expense of people who located on land that is flood free. 38 f

The natural existing conveyance and storage system is a vast environmental resource that must be protected. Naturally occurring floodplains[8] provide flood storage and floodwater conveyance, provide habitat, reduce sediment loads, reduce flood stage heights and velocities, provide open space and recreational amenities, facilitate groundwater recharge, improve water quality, and support agriculture. People who live on high ground (e.g. Comstock, Oxbow, and so on) have located their homes and farms in areas where the waters historically do not rise even in times of great flood. The areas south of and Northwest of Fargo, are not populated and developed, because these are the low-lying areas where nature has chosen to store waters during times of flood. Building levees and floodwalls around these floodplains destroys the flood handling capacity of the basin and impairs an important natural resource. See Report for the United States Congress on the Natural and Beneficial Comments of the Floodplain (2002)[9].

In our LPP permit comments JPA described the evolution of modern flood control policy[10]. We describe the growing recognition that flood protecting rural undeveloped floodplain is a destructive and costly counter-productive strategy. Protection of floodplain ecosystems and storage functions are now embodied in National Policies (Principles and Requirements for Federal Investments in Water Resources 2013[11]), the sustainability provisions

---

[8] http://www.floods.org/Files/Conf2015_ppts/C2_McShane.pdf
[9] https://www.hud.gov/sites/documents/DOC_14217.PDF
[10] In Re: Public Waters/Dam Permit Application Reference Number: 2016-0386 Application Reference Name: Fargo-Moorhead Flood Risk Management Project Comments by Richland-Wilkin Joint Powers Authority August 26, 2016, see also Appendices A-C.
[11] The Federal Objective, as set forth in the Water Resources Development Act of 2007, specifies that Federal water resources investments shall reflect national priorities, encourage economic
development, and protect the environment by: (1) seeking to maximize sustainable economic development; (2) seeking to avoid the unwise use of floodplains and flood-prone areas and minimizing adverse impacts and vulnerabilities in any case in which a floodplain or flood prone area must be used; and (3) protecting and restoring the functions of natural systems and

of the federal Water Resource Development Act of 2007 (42 U.S.C.A. § 1962-3), Executive Order 11988, and state policy as described in the Commissioner's order.

The Red River of the North[12] covers 45,000 square miles and occupies substantial portions of North Dakota, northwestern Minnesota, southern Manitoba and a small portion of northeastern South Dakota. The river flows to the north, feeding into Lake Winnipeg in Manitoba. Flooding, nutrient loading and loss of native habitat are significant issues in the Red River of the North Basin. The flood water storage capacity of the basin is the sum of storage capacity on both sides of the river. The 1998 mediated settlement arose from disputes over a generic environmental impact statement addressing a basin wide flood control strategy. The mediated settlement agreement cannot be ignored in subsequent environmental reviews; it bears the signatures of all major stakeholders including DNR, MPCA, Red River Management Board, U.S. Army Corps of Engineers, Board of Water and Soil Resources, and the U.S. Fish & Wildlife Service One of the major goals of the agreement was to implement a Basin Wide Flood Flow Reduction Strategy to support efforts to achieve a 20% flow reduction on the mainstem of the Red River. The principles found in that document have been incorporated into the prescribed water management plans of the watershed districts up and down the Red River Valley. As such, these principles have the force of state law in each of these regional watershed districts, including the Buffalo Red River Watershed District, Rice Creek Watershed and Middle-Snake Tamarack Rivers Watershed District. BRRWD watershed plan § 1.5, 4.1.1.1; Wild Rice §6.2, Middle Snake § 6.5.9. Minn. Stat. § 103D.401.

---

mitigating any unavoidable damage to natural systems. Principles and Requirements for Federal Investments in Water Resources March 2013.

[12] http://rrwmb.org/Governing_Documents/SECTION1-Policy%20Manual,%20Rev.%204%20FINAL.pdf

Both LPP and this new Plan B go in exactly the opposite direction, directly undermining the fundamental guiding approach to flood control management in the basin:

- They intentionally guide urban development into 50 square miles of floodplain reducing the capacity of the Red River system immediately upstream of the City of Fargo.
- They promote development outside of developed Fargo contrary to Fargo's own comprehensive plan.
- They evade and undermine federal, state and regional planning fundamentals by transferring waters from one community to another.

Numerous federal cases recognize that even small invasions of floodplain represent an unlawful violation of national floodplain policy[13]. In the typical case, set out in the footnote, parties are litigating about whether a small project needs to invade a relatively small amount of floodplain. Examples are the attempt to develop a few acres assigned to a post office location, where no high ground is available, or the placement of bridge abutments on less than an acre of land, so that a road can reach across water. The floodplain invasion proposed here dwarfs, by far, the largest floodplain development ever considered in recent decades. To repeat, **this project involves**

---

[13] See Daingerfield Island Protective Soc. v. Babbitt, 823 F. Supp. 950, 960-61 (D.D.C. 1993)(determining that, while EO 11988 does not create a private cause of action, the plaintiffs were entitled to "APA review of their EO 11988 claim"); City of Carmel-by-the-Sea v. U.S. Dept. of Transp., 123 F.3d 1142 (9th Cir. 1997)("agency implementation of both Executive Orders 11988 and 11990 are subject to judicial review under the Administrative Procedure Act); Citizens for Smart Growth v. Secretary of Dept. of Transp., 669 F.3d 1203 (11th Cir. 2012)(considering compliance with EO 11988 in determining whether the agency took a "hard look" at the direct environmental effects of the proposed action as required by NEPA); Prairie Band Pottawatomie Nation v. Federal Highway Admin., 684 F.3d 1002, 1019 (10th Cir. 2012)(analyzing the Federal Highway Administration's compliance with EO 11988, as adopted in FHWA regulations, in the context of the DOT Act requirements); City of Waltham v. U.S. Postal Serv., 786 F. Supp. 105, 130-31 (D. Mass. 1992) aff'd, 11 F.3d 235 (1st Cir. 1993) (EO 11988 "possess[es] the full force of law and [is] as fully judicially enforceable as NEPA itself.)

destruction of natural floodplain orders of magnitude greater than any project that we can find during the past 50 years. It violates national policy for no good purpose, and as the Commissioner's order finds, violates Minnesota law and policy as well.

VI. Conclusion

JPA urges that the implementation of the supplemental environmental review include the following important features:

- Alternatives that violate the permitting principles contained in the Commissioner's LPP rejection should be treated as not feasible and therefore not worthy of further review
- The examination of the LPP must not be treated as an evaluation of feasible alternatives, because those alternatives were wrongly considered in violation of Minnesota's permitting standards.
- The completed EIS, as supplemented, must consider lawful alternative sites, lawful alternative technologies, lawful modified designs or layouts, modified scale or magnitude, and lawful alternatives incorporating reasonable mitigation measures

To that end, the DNR should examine whether the Commissioner's rejection of the LPP as inferior to the no action alternative mandates rejection of Plan B, which involves application of the very same flood control approach as the LPP. The DNR should reject Plan B as unpermittable based upon the principles established by the Commissioner's order. 39 g The DNR should expand the scope of alternatives to include the Minnesota Diversion with any necessary added storage—including distributed storage, improved flows through town, and FEMA certified levees. The DNR should also include consideration of the JPA proposed North Dakota Diversion.

Dated: June 11, 2018

Respectfully Submitted,

RINKE NOONAN

/s/ Gerald W. Von Korff
Gerald W. Von Korff (#113232)
1015 W. St. Germain St., Suite 300
St. Cloud, MN 56302-1497
(320) 251-6700
Email: Jvonkorff@rinkenoonan.com

Attorneys for Richland/Wilkin Joint Powers Authority

Attachments:
Exhibit A – Declaration of Charles Anderson
Exhibit B – Declaration of Tim Fox
Exhibit C – Declaration of Cash Aaland

OAH Docket No. 65-2002-34309

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS

FOR MINNESOTA DEPARTMENT OF NATURAL RESOURCES

In the Matter of the Dam Safety and Public Water Work Permit Application 2016-0386 for the Fargo-Moorhead Flood Risk Management Project, Clay and Wilkin Counties, Minnesota, and Cass and Richland Counties, North Dakota	**DECLARATION OF CHARLES ANDERSON**

1. I am a licensed engineer in the State of Minnesota since 1977 and hold a bachelor's degree in civil engineering. My primary field of practice and expertise has been working with watershed districts and water resource management. I am currently a Senior Professional Engineer of the water resources department within Widseth Smith Nolting (WSN).
2. Our department specializes in water resource management relating to flood control, storm water, and water quality. I have extensive experience in drainage and flood control projects. My work in flood control involves, among other things, extensive study of the use of distributed storage in the Red River Valley, work for watershed districts in connection with flood control and mitigation, and on comprehensive strategies to manage flooding in the Red River Valley. I was a primary architect of the Red River Basin Commission 20% Flow Reduction Strategy that was incorporated into their Long-Term Flood Solutions 2011 report. I serve on the Technical and Scientific Advisory Committee ("TSAC") for the Red River Basin Flood Damage Reduction Work Group and on the

EXHIBIT A

Basin Technical and Scientific Advisory Committee ("BTSAC") for the Red River Retention Authority.

3. My review of the Fargo-Moorhead diversion project previously played a significant role in identifying the potential for downstream flooding by the Locally Preferred Project as it was proposed by the Diversion Authority in the original 2010 Draft and Final Environmental Impact Statement. My involvement in flood control matters affecting the Fargo Moorhead Metropolitan Area spans a period of many years. In addition to being involved in developing a Red River basin wide strategy for flood control, I have long advocated the need for improved protection in the FM area. However, my active involvement with the Fargo Moorhead Diversion Project has been working with entities who opposed the project as designed. First, I was involved with downstream interests that would have been impacted by the originally proposed project. Currently, I am involved with upstream interests that would be impacted by the staging area that was added to the project to mitigate the downstream impacts.
4. Most recently, I was invited to participate as a member of a Technical Advisory Group that was charged by the Fargo-Moorhead Area Flood Diversion Task Force with assessing project components and alternatives. Throughout my entire period of involvement, I have maintained a basin wide perspective. That is, I have advocated for local flood solutions that do not exacerbate the basin wide flooding problem and, to the extent practicable, that also work toward a basin wide solution.
5. Basin hydrology in general, and particularly the Red River Basin hydrology is a very complex subject. Over time, complex mathematical processes have been developed to aid in hydrologic analysis. Despite these technological advancements (and sometimes

EXHIBIT A

because of them) it is easy to be overwhelmed by data and lose sight of fundamental principles involving both science and policy. At the risk of oversimplification, the following is a brief discussion of those principles as they relate to the Diversion Project:

a. **Maximize Benefits-Minimize Adverse Impacts.** The overall goal of public water resource projects is to maximize benefits while minimizing adverse impacts (including cost). Proponents tend to focus on the benefits whereas opponents tend to focus on the impacts. In question may be the legitimacy of the benefits and adequate consideration of the impacts.

b. **Transference Principle.** Floodwater that is reduced or excluded from one area will necessarily show up somewhere else, likely with adverse impacts.

c. **Avoid Protecting Undeveloped Floodplain.** Few would question the legitimacy of excluding water from highly developed urban areas. However, adding flood protection to undeveloped existing floodplain areas with the intent or effect of promoting their future development has not (at least in recent years) been considered wise public policy. This principle is the basis for the state and federal policies that prevent unwise development of floodplain.

d. Displaced waters should best be added to areas that would not necessarily be impacted or are already impacted by floodwaters.

6. **Storage.** Storage is key to understanding the hydrologic impacts of most projects. When water is going into storage, downstream flows are reduced. As water comes out of storage, downstream flows are increased.

a. Storage is a naturally occurring phenomenon in virtually all watershed and river basin systems. Lakes and wetlands are obvious examples of storage. This may be

EXHIBIT A

referred to as level-pool storage. Less obvious but equally important is in-transit storage. As flows increase and river stages rise, the volume of moving water within and adjacent to the river channel increases. Even though the water may be moving and is not level the storage effect is the same.

b. Mountain streams have relatively minor in-transit storage because most of the water stays within or close to the channel. Conversely, the Red River, because of its broad floodplain, has a huge amount of in-transit storage.

7. The proposed Flood Risk Management Project, AKA the FM Diversion Project, includes many features that affect storage.

Levees

a. The levees (many of which already exist) have the relatively straightforward effect of restricting water from entering a portion of the floodplain, thereby reducing natural flood plain storage.

b. Levees may also have the effect of blocking flow that would have occurred across the natural floodplain area. That would have the effect of raising water levels upstream which would add storage above the natural floodplain elevation. That appears likely to be an effect of the existing levee system, offsetting a portion of the lost floodplain storage behind the levees.

Diversion Channel

a. **Diversion channels tend to reduce storage.** A diversion channel that carries Red River water around the metro area from upstream to downstream would have the effect of lowering water levels along that reach of the river and at the

EXHIBIT A

upstream end. This would diminish both upstream storage and the in-transit storage.

b. The Corps NED project, a diversion channel on the Minnesota side, would have had those effects.

c. The Locally Preferred Project, a Diversion Channel on the North Dakota side, has the additional effect of reducing in-transit storage on the Sheyenne River and its tributaries the Maple and Rush Rivers. The diversion channel would run through a vast floodplain area associated with those streams, resulting in a major loss of natural floodplain storage.

Staging Area

a. The staging area adds a major volume of flood storage and as such has the effect of diminishing downstream flows. As a flood control measure, adding storage at that location had the potential to provide both local and basin scale downstream benefits. Unfortunately, from a basin perspective, it is only designed and operated to mitigate the downstream impacts of the levees and the diversion channel.

8. **Timing.** Timing is a key concept in predicting the downstream impacts of various project alternatives. Each tributary area tends to contribute water to locations on the mainstem during different periods of the flood. For simplicity, we have referred to those areas as early, middle, and late corresponding to when most of the water arrives relative to the flood peak. It would obviously be preferable to reduce, or at least not increase, the amount of water that arrives during the peak/middle period. The drainage area upstream from Fargo tends to contribute most of its water late to the flood at the basin outlet.

EXHIBIT A

Therefore, from a basin perspective you wouldn't want to speed up the delivery of water from this area.

9. Unfortunately, the signature feature of the project, the diversion channel, and the levee system do speed up delivery of water from this area by reducing the storage effect. In recommending this alternative, the Corps apparently valued the local advantages of a diversion channel over its basin scale adverse impacts. The advantage of diversion channels over levees and dams is that, while their design capacity may be exceeded, there is virtually no probability of abrupt and potentially catastrophic failure.
10. Upon giving proper recognition to the downstream basin impacts, the Corps recommended adding the staging area to provide storage for mitigation. A preferable approach at that point in time would, in my opinion, have been to revisit the alternatives and select one with less downstream impact.

Alternatives

11. Alternatives to the project as proposed have been advanced by project opponents.
12. **Distributed storage**. Providing a basin wide goal of 20% peak flow reduction, has been a widely recognized and adopted Red River Basin flood damage reduction objective. Once in place, it would significantly reduce but not eliminate the flood threat to the Fargo Moorhead Metropolitan Area. Its major drawbacks are its unknown timeframe and uncertainty of implementation. As a longtime advocate of distributed storage, I believe that it should be included as part of the long-term flood solution for the FM area. I do agree that it should not be counted on to provide immediately needed 100-year protection. But it will, over time, increase the level of protection and reduce impacts.

EXHIBIT A

13. **NED Design.** The Corps originally recommended construction of its NED Project, a diversion channel located in Minnesota, as it was shown to have the greatest net economic benefit. Largely overlooked was the fact that it also had the least downstream impact. Apparently, that factor was not considered important because, at that time, the Corps did not believe the downstream impacts of any of the alternatives were significant enough to be considered a taking. The Minnesota Diversion channel generally would run through higher ground than much of the North Dakota Diversion called the LPP. When a channel is routed through floodplain, it naturally drains that floodplain during flood events. That fact, often produces local support for routing the channel through floodplain, because the adjacent floodplain is reduced and may now be developed. Advocates for floodplain development may call that conversion a benefit, even though it creates negative impacts elsewhere in the basin.
14. The Minnesota Diversion did not have local support due to no perceived flood control benefits along and adjacent to its alignment. The North Dakota Diversion on the other hand, clearly would provide floodplain development benefits along its alignment. As discussed above, those additional benefits of the North Dakota alignment cause the additional downstream impacts. Therefore, in my opinion, consideration of the Minnesota alignment should have been revived.
15. Although the Minnesota Diversion would not provide adjacent flood control benefits it may be possible to add multipurpose benefits that would garner local support. As an example, I have suggested including transportation benefits by incorporating a TH 75 bypass within the diversion channel corridor.

EXHIBIT A

JPA North Dakota Channel Alternative

16. At the request of the Joint Powers Authority we explored the potential for reducing project impacts by making major changes to the North Dakota Diversion alignment. We targeted two areas that we had identified where the greatest amount of existing floodplain storage was being displaced. One was the expansive floodplain area northwest of Fargo near the confluences of the Sheyenne, Maple, and Rush Rivers. The other was an area to the south of Fargo between the existing urban development and the proposed dam that would form the staging area.
17. Based on our rough modeling analysis we were able to show reductions in impact for both areas of alignment change. The most significant reductions were associated with the changed alignment northwest of Fargo.
18. Upon joining the Technical Advisory Group early in 2018, we were able to take advantage of their members' well developed hydrologic knowledge and skill set to refine the proposed alignment changes. Initial focus was on the northwest area, which we had found to have the greatest effect. The results of their incorporated minor alignment changes and more detailed analysis indicated similar impact reductions with improved buildability. Unfortunately, there was not sufficient time allotted to complete a more detailed analysis of the south area.
19. Based on that work that was done on the JPA concept, the Technical Assistance Group of engineers found that the JPA's alignment changes would lower the staging area elevation by at least 5.4 feet to 916.2. These results clearly justified further analysis, which in my judgment would likely have led to further improvements. However, further analysis of

EXHIBIT A

alignment changes was cut short by the Diversion Authority's decision to apply for permits for another alternative.

20. With additional time and resources, there is little doubt in my mind that several other changes that have been suggested would result in additional improvements.

Second Permit Application

21. The Diversion Authority has applied for a permit to construct a revised version of the project. The revisions are all related to dam alignment of the staging area. There are no apparent changes to the diversion channel alignment. Therefore, the benefits and impacts associated with the loss of floodplain storage in that area are unchanged. As in the previous version of the project, the downstream impacts of the diversion channel are fully mitigated by storing water in the staging area. The location of the stored water has shifted somewhat resulting in less upstream impact in Minnesota and more in North Dakota. In my view, this latest version of the project represents an improvement, however minor.

22. To summarize. This project got off to a bad start by proposing the least basin plan compatible alternative, a diversion channel, and did not include any version of storage. Making matters worse, the locally preferred option protects and promotes development of existing undeveloped floodplain, a dubiously legitimate objective. The addition of storage, by way of the staging area, was a major improvement in that it mitigated the downstream impacts of the diversion channel, but consequently added upstream impacts. Those upstream impacts should be minimized by reducing the nonessential loss of existing floodplain storage.

EXHIBIT A

23. The engineering capability exists to greatly improve this project. However, that will only happen when the direction given to those engineers shifts from maximizing benefits to minimizing impacts.

I declare under penalty of perjury, pursuant to Minn. Stat. §358.116, that everything I have stated in this document is true and correct, and that the opinions here expressed are my professional opinion.

Executed this 31st day of May, 2018, in the County of Douglas, State of Minnesota

/s/ Charles L. Anderson
Charles L. Anderson

EXHIBIT A

Docket No. 65-2002-34309

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS

FOR MINNESOTA DEPARTMENT OF NATURAL RESOURCES

In the Matter of the Dam Safety and Public Water Work Permit Application 2016-0386 for the Fargo-Moorhead Flood Risk Management Project, Clay and Wilkin Counties, Minnesota, and Cass and Richland Counties, North Dakota	**DECLARATION OF TIM FOX**

Introduction and Summary

1. I am a member of the leadership team of the Richland/Wilkin Joint Powers Authority (JPA). The JPA has constituent governmental members in all four counties, Cass, Clay, Richland and Wilkin Counties and non-governmental members in those areas as well. I am providing this declaration to explain why the JPA decided that it was important for the sound, effective, and efficient management of the Minnesota permitting process to seek summary disposition in this case.
2. I was a practicing attorney for four decades in the Breckenridge area from 1976 until 2016 and continue to maintain my attorney license. I started as a general practice attorney with Keith, Robertson and Fritz Clemmsen in Breckenridge, after I finished law school at University of North Dakota in 1976. In 1980, I became the Breckenridge City and Wilkin County Attorney. I was elected and served as Wilkin County Attorney for 36 years. For many years, I served on the Board of Directors of the Minnesota County Attorneys Association including being elected President of the Association.
3. I have been actively involved in the JPA's efforts in all of the pending litigations.

EXHIBIT B

4. The purpose of this declaration is to explain why Joint Powers Authority (JPA) decided after considerable deliberation to seek summary disposition of this contested case. JPA is a joint powers organization, a Minnesota-North Dakota joint powers entity, as is the Diversion Authority. We have two attorneys on our steering committee, and the members of the steering committee made this decision after long and careful consideration.
5. In this declaration, I've sought to describe the relevant procedural history that led us to this point. Since 2014, JPA has been actively advocating that the parties meet for genuine settlement negotiations. The environmental review and permitting format has been implemented in a way that creates unending serial litigations, but never focuses on the central core issues, and I'll explain that more later in the declaration. JPA contends, and the Commissioner has found, that Minnesota law cannot issue a public waters permit for this project unless it complies with the least impact provisions of MEPA section 116D.04 and the permitting laws and regulations.
6. However, in both the federal and state environmental reviews under NEPA and MEPA respectively, the applicant has been allowed to rule out consideration of alternatives that have a lesser impact. USACE allowed Diversion Authority to select the Locally Preferred Project, deferring the least impact permitting decision to the Minnesota vetting process. When Diversion Authority began construction on the LPP, the federal court issued an injunction until the Minnesota environmental and permitting review was complete.

EXHIBIT B

7. However, DNR administers the Minnesota environmental review in a way that allows an applicant to defer the least impact analysis to the permitting process. This approach had unfortunate and costly consequences for all parties and has made the vetting required by Minnesota law protracted and costly.

8. The LPP that is now under consideration in this contested case is clearly not the least impact solution. The NED project (the Minnesota Diversion) provides outstanding protection to developed Fargo and Moorhead, as the USACE found, and produces vastly less impacts. However, in the Minnesota environmental review, Diversion Authority was allowed to rule out the Minnesota Diversion, because DNR takes the position that it need not consider superior alternatives in the environmental review, if the applicant unilaterally rules them out. Under this approach, the Minnesota environmental review did not study the NED project, even though the NED project was selected by USACE as the project that best meets national flood control objectives and produces the least impact.

9. When the Minnesota environmental review was deemed adequate, the DNR explicitly warned the Diversion Authority – in the environmental review document—that an adequate environmental review was not equivalent to permitting clearance. However, the DNR's environmental review left the permitting process without a record of examination of the least impact solution. As a result, Diversion Authority was required to launch a costly and protected permit procedure, and JPA, along with citizens and impacted governmental entities likewise were embroiled in that proceeding.

EXHIBIT B

10. The ultimate result of the permitting process was that the Commissioner rejected the LPP but lacked a record on which he could find which permittable project configuration constituted a least impact solution.

11. As described below, JPA strongly supported commencement of settlement negotiations, because it was represented that the negotiations would involve a mutual attempt to find an agreed permittable least impact solution. It was on that basis that we signed joint motions to stay all proceedings and a section 408 agreement protecting the deliberations from later use in litigation.

12. During the deliberation process, however, once again, viable least impact solutions were summarily taken off the table. As discussed below, Diversion Authority unilaterally chose a new project design: there were no settlement negotiations, and no attempt to arrive at an agreement. Moreover, persons who live in the impacted areas are now faced with two simultaneous application processes, and neither of the applications involve a least impact solution. We face the prospect of serial applications, and serial litigations, without any forum to arrive at the least impact solution. Now, my declaration turns to a more detailed procedural history which is designed to explain our concern about managing two permit applications simultaneously.

JPA Participation in State, Federal and Administrative Proceedings

13. In compliance with the Minnesota Environmental Rights Act (MERA) JPA commenced an action to protect the environment against what we saw as an unwise and environmentally damaging flood control project. Our MERA claim was commenced in the name of the State to protect the environment. Minn. Stat. §116B.03 subdivision 1. Our constituent members are damaged individually, but our understanding of our status

EXHIBIT B

as a MERA plaintiff is that we have a quasi-fiduciary obligation to prevent environmental damage, and we have taken that obligation quite seriously.

14. Our MERA action was commenced in Minnesota State District Court just as Diversion Authority commenced construction on the Locally Preferred project before completion of the Minnesota environmental review and before a Minnesota permit was obtained. We alleged that the Diversion Authority is a Minnesota political subdivision subject to MERA and MEPA, and there sought enforcement of the requirements of both of those statutes as to this project.

15. As representative of Wilkin County and of the JPA, I attended numerous meetings and presentations by USACE representatives and DA representatives. Throughout that process, representatives of the USACE and DA consistently took the position that this project was exempt from Minnesota permitting. As of the date we commenced our MERA action in state court, the representatives of both DA and USACE indicated that the design of the project need not take Minnesota permit requirements into account.

16. After we commenced our MERA and MEPA state court suit, the Diversion Authority sought an injunction in federal court to prevent us from litigating these issues in a separate venue. We advised the Federal Court that we would consent to moving those claims into the federal court, provided that Diversion Authority recognized that the federal court had supplemental jurisdiction over our state law claims. As a result, the State MERA action was stayed, and we amended our federal complaint to include our MERA claims. During subsequent proceedings, the Diversion Authority moved the court to remit our MERA claims to state administrative proceedings, but the Federal Court retained jurisdiction over our MERA claims.

EXHIBIT B

17. We are currently active participants in multiple litigations. The litigation and status of the litigation is listed here.

    a. Richland/Wilkin Joint Powers Authority et al vs. United States Army Corps of Engineers, US District Court 13-cv-2262 JRT/LIB (preliminary injunction prohibiting construction granted pending outcome of Minnesota permit proceedings; proceedings stayed by consent of the parties)

    b. Fargo-Moorhead Diversion Board of Authority v Richland/Wilkin Joint Powers Authority 8th Circuit Court of Appeals No. 17-3429, stayed by consent of the parties pending outcome of Minnesota permit proceedings

    c. In the Matter of the Final Environmental Impact Statement for the Fargo-

    d. Moorhead Flood Risk Management Project, Clay and Wilkin Counties, Minnesota

    e. and Cass and Richland Counties, North Dakota, Pursuant to Minnesota Rules Parts 4410.0200 to 4410.6500, Minnesota Court of Appeals (writ of certiorari challenging adequacy of Minnesota environmental review) (stayed by consent of parties)

    f. Richland/Wilkin Joint Powers Authority v. Fargo-Moorhead Diversion Board of Authority, Wilkin County District Court, 84-CV-14-181 (stayed by federal court anti-suit injunction).

EXHIBIT B

My Role in JPA and Background—1997 Flood

18. The Ottertail and Bois de Sioux rivers converge in the Wahpeton/Breckenridge downtown area and forming the Red River of the North.

19. The flood of 1997 overwhelmed Breckenridge and its cross-border neighbor Wahpeton, North Dakota. The 1997 flood was a flood of record that produced the highest historic peak flows on the Red River throughout the Red River Basin. As Breckenridge City Attorney, I worked in a collaborative effort with the US Army Corps of Engineers to address future flood protection for the City of Breckenridge. The efforts began before the 2001 Federal authorization of the Breckenridge Flood Protection plan and continued up to my retirement in 2016.

20. Following the 1997 flood numerous communities throughout the Red River Basin sought federal and state assistance for permanent flood protection. Communities and their elected officials were mutually supportive of efforts to obtain permanent flood protection.

21. Because Breckenridge and Wilkin County did not conceive of the possibility that Fargo and Moorhead's efforts might shift floodwaters onto our communities, we were not actively involved in the feasibility study efforts focused on Fargo and Moorhead.

2010 USACE NED Recommendation—Minnesota Diversion

22. After many years of federally funded feasibility studies, in the Spring of 2010, the US Army Corps of Engineers (USACE) completed its feasibility and environmental reviews for the Fargo and Moorhead communities. The USACE selected a Minnesota diversion as the National Economic Development (NED) project, that is, the project that best meets national economic development and environmental objectives. Once again, our communities upstream were supportive of that project. The USACE public

EXHIBIT B

communications indicated that the NED project could be constructed for about $1 billion without causing unacceptable downstream flooding.

23. The USACE's 2010 environmental review and feasibility study also reviewed a second project alternative, a North Dakota diversion, which was ultimately designated by the Diversion Authority as the "Locally Preferred Project," (LPP). The LPP alternative is at least two times more expensive and would provide flood protection to the rural undeveloped 20 square miles south of Fargo, and to about 30 square miles northwest of Fargo.

24. Originally, the Diversion Authority's leadership publicly supported the Minnesota Diversion. In the February 2010 presentation, the Fargo Forum reported,

> *"Project managers from the U.S. Army Corps of Engineers said in no uncertain terms Thursday that Fargo-Moorhead's best shot at getting federal funds for a Red River diversion channel is to choose a Minnesota diversion[1]."*

The Fargo Forum continues, quoting Commissioner Mahoney:

> *… to get the project approved, and to have it affordable for taxpayers, it looks like a Minnesota diversion should be the local choice. "The time frame is extremely critical. ... We have to pick a plan, it has to be an NED plan," he said.*

25. The advantage of the Minnesota Diversion was that Diversion Authority could receive the maximum cost sharing from the federal government. At this time, the public was being told that either project could be built without causing unacceptable downstream flooding.

---

[1] Fargo Forum February 5, 2010.

EXHIBIT B

26. Because the LPP did not meet national objectives, the Diversion Authority -- and its constituent governmental entities -- would have to pay not only the statutory local share but would also have to pay the entirety of the difference between the cost of the NED and LPP, which is currently estimated at about $1 billion.

27. In April of 2010, members of the Diversion Authority designated the more expensive North Dakota Diversion as their preferred option. That decision was made without a Minnesota environmental or permitting review.

28. Importantly, at the time of the LPP designation the USACE advised that the North Dakota diversion could be operated without unacceptable downstream impacts.

Downstream Communities Challenge USACE Acceptance of LPP

29. At this point, a consortium of downstream communities became deeply concerned that the LPP would cause massive downstream flooding, notwithstanding the USACE's assertion that it would not do so. Downstream communities were concerned that the LPP was eliminating 50 square miles of existing floodplain storage. As the pictures in our motion indicate, during major flood events, huge volumes of water at significant depths flow across the floodplain. Downstream communities challenged USACE's contention that 50 square miles of floodplain storage could be eliminated without significant negative consequences for the communities downstream. Downstream communities hired a highly respected flood engineer, Charlie Anderson, of the Widseth-Nolting engineering firm, and the national environmental law department of Stoel-Rivas to challenge the environmental review.

EXHIBIT B

30. Shortly before the federal environmental review comment period expired, USACE conceded that its hydrological analysis of the LPP was seriously flawed, thus vindicating Anderson's opinion that elimination of 50 square miles of floodplain storage would produce flooding. USACE announced that it would conduct a supplemental hydrological review followed by a supplemental environmental review. Once the supplemental review was completed, USACE advised that in order to deal with the enormous volume of water diverted off of the floodplains, Diversion Authority was proposing to store the supplanted water on southern Cass and Clay Counties and Northern Richland and Wilkin Counties.

31. At this point, upstream communities and citizens formed two entities to speak on behalf of the governmental subdivisions and citizens. One was called MnDak, the Minnesota North Dakota coalition; the other, the Richland-Wilkin Joint Powers Authority. Both organizations urged that USACE's recognition that the LPP would cause flooding undermined the original choice of the LPP over the NED. Now that it was clear that the LPP's expansion of Fargo's development into the floodplain would occur at the expense of other communities, the project should return to its original concept, and the Minnesota diversion choice should be restored.

32. The new version of the LPP proposed to move water upstream by damming the Red River south of the rural area that Fargo wants to develop. When a flood is predicted, the floodgates would be closed and water would be backed up flooding all the way south into Richland and Wilkin Counties. The Cities of Oxbow and Comstock, communities of Hickson, Bakke would be under water. In presentations to the public representatives of the Diversion Authority and USACE explicitly stated that the project design did not

EXHIBIT B

contemplate meeting Minnesota permit requirements, because the federal nature of the project superseded Minnesota's regulatory requirements. No effort was made to comply with watershed regulatory requirements, or other local and regional requirements. Work on portions of the project was commenced despite Minnesota's warnings about the environmental review and permitting process. JPA sought a preliminary injunction against that work in federal district court and a federal injunction issued. See Richland/Wilkin Joint Powers Auth. v. United States Army Corps of Engineers, 826 F.3d 1030 (8th Cir. 2016).

Governors Propose Settlement Process and Request Stay of All Litigation

33. After four years of litigation, the federal District Court issued an order which again confirmed the obligation of the Diversion Authority to comply with Minnesota permitting requirements. Judge Tunheim's September 7, 2017 Order

> *"encourage[d] all parties to work together to agree on a flood protection project that can serve the interests of both states and the afflicted communicates." (emphasis added)*

34. During the month of September, the two Governors of Minnesota and North Dakota engaged in discussions on a process which they described as fulfilling the Judge Tunheim's September 7 order. JPA enthusiastically supported the concept of working together **to agree**. We expected that this process would involve give and take, but the concept envisioned, and the basis upon which JPA supported the ensuing stays was that the process would lead to an attempt by "*the parties"* to negotiate a settlement. We anticipated that an important part of the process would be examining alternatives against

EXHIBIT B

the permitting criteria established by the Commissioner, and that would include examining the least impact solutions.

35. The DNR conditioned its participation in a settlement process upon an agreement by all parties (a) to stay all litigations, including the federal appeal, the state appeal, the district court litigation, and the contested case and (b) to sign a 408 agreement that would bar the use of the settlement process in future proceedings. Our understanding of the process, then, is that dialog would be conducted in which the parties would ultimately receive information about a range of alternatives and we would then attempt to settle in the traditional sense.

36. October 30, 2017, parties sign 408 agreement as follows:

> *The Parties agree that they shall not inquire in any fashion or make any representation whatsoever about settlement information in any legal or administrative proceedings pertaining to the Project. The Parties agree that they shall not disclose or use any settlement information at any point in the course of any federal or state legal or administrative proceedings ("Legal Proceedings") pertaining to the Project.*

37. The two Governors appointed members to a Joint Task Force. While many of the members were active in the JPA or the Diversion Authority, the members were not designated as representing parties. The Governors also appointed a Technical Advisory Group (TAG), which was dominated by engineering firms representing the USACE and Diversion Authority. DNR also had representation on the TAG.

Elimination of NED Project from Consideration
JPA Efforts to Study Least Impact Alternatives

38. Early on in the Joint Task Force process the two governors summarily eliminated the Minnesota Diversion from discussion or consideration. As previously stated, the NED

EXHIBIT B

project, the Minnesota Diversion has a price tag of about $1 billion less than any North Dakota alternative. JPA's position that elimination of the Minnesota Diversion is contrary to MEPA, the Minnesota Environmental Policy Act, and Minnesota permitting criteria.

39. Eliminating the Minnesota diversion also makes the project vastly more complicated from an engineering perspective and eliminates the least costly least impact alternative selected by the USACE. Since all of the engineers on the TAG, other than DNR representatives were working for the Diversion Authority, it was extremely difficult to obtain engineering information to analyze alternatives not favored by the Diversion Authority. During the task force deliberations, we urged the governors' representatives to allow engineer Charles Anderson to present information on other alternatives. Anderson was given time to make a presentation, the substance of which is in his affidavit also submitted with our filings.

40. Mr. Anderson advised JPA and the Joint Task Force that the key to reducing impacts is to reduce the area of floodplain that is protected for development. He pointed out that the LPP opens 50 square miles of floodplain because the diversion channel was intentionally run through floodplains and across Red River tributaries.

41. All of the alternatives proposed for study by Diversion Authority representatives on the Joint Task Force and TAG contained a major floodplain development component. When JPA members urged that the Joint Task Force should study alternatives that minimized floodplain development, as the Commissioner's Order required, we encountered resistance.

EXHIBIT B

42. Facing the possibility that the Task Force process was going to eliminate all options unless they contained a floodplain development component, we asked Charles Anderson to model a North Dakota diversion alternative that would minimize floodplain development. We wanted to see if such an option might be feasible and might realize significant reductions in impacts. Mr. Anderson advised us that he had the capability to use USACE software to provide preliminary results. However, he indicated that a full hydrological analysis takes time and requires more resources than he could marshal on his own in the allotted time. He advised that he could provide meaningful preliminary results that could assist the Task Force to consider whether further refinements would pay dividends. He advised that if those preliminary results were favorable, further refinement would be required, and he would need to work with USACE engineers to carry the analysis to completion.

43. Our purpose in commissioning Anderson's modelling was to see if a compromise could be found that dealt with the summary elimination of the Minnesota diversion. We reasoned that if we were going to be forced to consider a North Dakota Diversion, it should be designed to solve the feature that caused the original problem: the unwise development of the 50 square miles of rural undeveloped floodplain.

44. In consultation with engineer Anderson the JPA initially provided a rough outline of a proposal alignment based the handout and presentations made by Charlie Anderson during the Task Force meetings. Charlie Anderson took on the task of examining his theories using Corps modeling and confirmed an alternative location of the northern alignment would provide significant benefits, while retaining floodplain otherwise removed by the DA alignment. Charlie Anderson further confirmed that these benefits

EXHIBIT B

would transfer to significant modification of the staging area reducing its elevation and even greater benefits with the staging area moved north by preserving additional floodplain.

45. Increasingly, JPA became concerned that the Joint Task Force deliberations were not going to lead to settlement negotiations amongst the parties as had been represented when we agreed to the stay motions. We had expected that least impact alternatives would be modelled and that a genuine inter-party negotiation would examine the alternatives using Minnesota permitting criteria. Through our attorney, we began to complain that the Task Force deliberations seemed to be ignoring Minnesota permitting criteria and that there was no forum for parties actually to attempt to arrive at a settlement. The Task Force Report that was ultimately issued did not reflect a consensus or agreement nor did it produce a permittable project alternative.

46. As a result of our concerns, DNR agreed to create a "leadership team" with party representatives, but litigation counsel for the parties were prohibited from attending. After weeks of complaining about the restrictions on alternatives, we were able to create an agreement that would allow Anderson to complete his modelling with the cooperation of project engineers. The driving principle of the alternative proposed by JPA was to capture the benefits of the Minnesota diversion, but put the diversion on the North Dakota side, because the Governors had ruled out a Minnesota diversion. Anderson pointed out that the major reason why the Minnesota diversion produced dramatically less floodwaters than the North Dakota diversion was that the Minnesota diversion did not remove undeveloped (rural) floodplain storage. Anderson pointed out that if the

EXHIBIT B

North Dakota side diversion were routed so as to avoid pulling water off of the floodplains, it could duplicate much of the benefits of the Minnesota diversion.

47. As Anderson was conducting his modelling, DA representatives to Joint Task Force remained adamant that the project should accommodate the development of tens of thousands of rural undeveloped acres of Floodplain that extend 10 miles downstream and also north of Fargo. (In fact, the project they identified as a candidate for the second permit application reclaims only a relatively small amount of floodplain by increasing the elevation of flow through town to 37' through town and accepting different "Period of Record" 100-year flood event.)

48. The results of the Anderson modelling were ready before the last meeting of the four-party leadership team (JPA, USACE, DA, and DNR), and they were to be submitted at that meeting. The results showed that a North Dakota diversion designed to avoid floodplain development – one that maximized the preservation of existing floodplain – would dramatically reduce impacts. It would remove the communities of Oxbow, Bakke and Hickson from the staging area or substantially reducing needed protection.

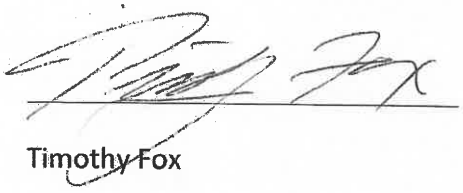
49. However, when the leadership team was convened, the Diversion Authority and USACE arrived at the meeting having already decided to submit a permit application that develops massive amounts of floodplain. They came with a press release announcing the

EXHIBIT B

new application. The new application is not the result of negotiations and it certainly does not constitute the product of a consensus process.

50. That brings me back to our concern. We agreed to a stay of these proceedings to facilitate an effort to conduct settlement negotiations. The Commissioner's order was issued on October 3, 2016. Citizens all over Wilkin, Richland, Cass and Clay counties have been held in suspense as to whether their lands will be subject to up to 8 feet and more of intentional flooding, or whether the permit will be denied. If the Commissioner applies the same "least impact" principles to the second permit application it must also be denied. If that occurs, or even if the permit is granted, there will likely be two contested cases, and still, the DNR's process will not have even considered the two least impact solutions, the NED (Minnesota Diversion), and the Anderson alternative.

Executed this 31st day of May, 2018, in the County of Wilkin, State of Minnesota.



Timothy Fox

EXHIBIT B

OAH Docket No. 65-2002-34309

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS

FOR MINNESOTA DEPARTMENT OF NATURAL RESOURCES

In the Matter of the Dam Safety and Public Water Work Permit Application 2016-0386 for the Fargo-Moorhead Flood Risk Management Project, Clay and Wilkin Counties, Minnesota, and Cass and Richland Counties, North Dakota	**DECLARATION OF CASH AALAND**

Cash Aaland provides the following declaration under oath:

1. I am a member of the Joint Powers Authority's leadership team. I've practiced law in North Dakota since 1989 and Minnesota since 1990. My firm, Aaland Law Firm, consists of six lawyers practicing in the areas of criminal defense, family law, personal injury and appeals.
2. I served with Tim Fox as one of the members of the multi-party representatives who met after the conclusion of the Joint Task Force Meetings. The Joint Task Force concluded with each of the task force members submitting statement on the flood control project. The task force did not come to a consensus, and frankly, there was no effort to arrive at an agreement, because the Task Force members did not represent parties.
3. JPA agreed to support a stay of all litigations, including the contested case, understanding that eventually the Governors would call upon us to engage in settlement negotiations to find a project configuration that met Minnesota's permitting requirements. As we understood Minnesota law that meant that the project design would have to meet specific Minnesota permitting criteria, including the least impact requirement of the Minnesota Environmental Policy Act (MEPA).

EXHIBIT C

4. However, as we attempted to participate in the process, the DNR could not get the Diversion Authority and USACE to focus on Minnesota permitting requirements. When the Minnesota DNR denied the FM Diversion Authority's Dam Safety and Work in Public Waters Permit Application in October of 2016, it did so for very specific reasons. Chief among them was that approximately 54% of the lands removed from flooding in the project's proposed 72,923 acre benefited area were "sparsely developed flood plain located outside of Fargo." (Para 36, 154 and 196, Dam Safety and Public Waters Permit Application 2016-0386, Findings of Fact, Conclusions and Order). The proposed high hazard dam, necessary only to mitigate downstream impacts caused by the destruction of so much flood plain storage, would have resulted in the inundation of approximately 20,000 acres of land that did not previously receive flood waters. (Para 34, Findings and Order). The Commissioner found that the project applied for: "simply shifts the burden of flooding from one sparsely developed rural area to another and, to this extent, is of minimal benefit to the public welfare." (Para 196, Findings and Order).
5. The DNR further concluded that "[t]he review of the economic analysis and flood control benefits performed for the proposed project does not establish that the quantifiable benefits support the need for the project" as required by MN statute. (Para 137, Findings and Order). "Constructing a Class I (high hazard) dam is neither reasonable nor practical in light of the incremental increase of flood protection afforded to existing development in the F-M metro area." Id. The FM Diversion Authority failed to establish that its proposal represented the "minimal impact solution" with respect to all other reasonable alternatives as required by MN statute. (Para 85, 198, Findings and Order).

EXHIBIT C

6. At nearly every meeting of the Fargo-Moorhead Area Flood Diversion Task Force Commissioner Landwehr cautioned everyone present that the "current" project was not permittable and that "major changes" must be made before a permit could be issued. The words "major changes" were repeated by Governor Dayton in his written statement in the Task Force Final Report and again by the Commissioner during the subsequent meetings held in St. Paul with leadership representatives from the Army Corps, the FM Diversion Authority and the Richland-Wilkin JPA.
7. Keeping in mind the Commissioner's finding, Richland-Wilkin JPA worked to place on the table a project based on the Commissioner's requirements. We hired engineer Charlie Anderson to work with us to develop such a project. Engineer Anderson had advised us that one of the flaws in the LPP (permit application) was that the diversion channel would run through the floodplains south and northwest of Fargo. These channel configurations were located so as to pull water off of the floodplains, destroying their natural water storage functions.
8. Engineer Anderson advised us that returning the diversion channel to the Minnesota side, as recommended by USACE, would more efficiently and cost effectively protect Fargo and Moorhead and automatically avoid removing the floodplains storage function. However, he indicated that if the channel had to go through North Dakota, it could be designed to dramatically reduce impacts.
9. With the assistance of engineer Anderson, we presented a proposal that would reduce the size of the project from the 72,923-acre plan that was denied a permit, to a 49,000-acre plan that would leave unchanged the plan's specific features that protect the existing development in the FM Metro. (Para 154, Findings and Order). The JPA's proposal also

EXHIBIT C

allows a reasonable area for future growth. The northwest modification proposed by the JPA would preserve the flood plain of the Maple and Rush rivers northwest of the Metro area. By reducing the length of the diversion channel and moving it east, approximately 29,400 acres of sparsely developed flood plain would be excluded from the project footprint, maintaining its natural flood plain storage capacity. Existing development in this rural area would remain "as is" and not receive any additional waters. The JPA's proposal on the southern end of the project would move the dam a reasonable distance north preserving another 10,000 acres of rural flood plain.

10. We were able to arrange for engineer Anderson to have access to USACE engineering to complete modelling of our alternative proposal. Based on that work, the Technical Assistance Group of engineers acknowledged that the JPA's proposals would lower the staging area elevation by 5.4 feet to 916.2, wholly removing impacts from Richland and Wilkin Counties and greatly reducing Minnesota impacts in Clay County.
11. That report was scheduled to be presented to a meeting of the party representatives for review on March 8. At that March 8 meeting, DNR representative Kent Lokkesmoe acknowledged that if, in addition to the JPA's proposed modifications, another 6 inches of flow downstream was allowed as suggested in the Task Force Guidance for TAG, the result would reduce staging by another foot or more, wholly removing Oxbow Hickson Bakke from the staging area and potentially eliminating all the Minnesota impacts. The elevation of OHB is approximately 915 to 916.5.
12. However, the Army Corps of Engineers and Diversion Authority came to the final meeting with a press release announcing their decision to seek a permit on Option described as Option 7A/10D. Fargo's proposed Plan B, as outlined in the Diversion

EXHIBIT C

Authority's press release and the TAG documents reflecting the size and shape of 7A/10D, would actually *increase* the Diversion project from the 72,923-acre project that was denied a permit, to a 76,812-acre project with the dam located further south. (Para 36, 154 Findings and Order) (TAG spreadsheet: FM Diversion Project – Southern Embankment/Dam Option Comparison). The Northern Alignment Alternative, proposed for permit by the DA in their 2016 Dam Safety and Public Waters application, and upon which the DNR Denial Order was tied, proposed the dam and embankment be located *1.5 miles further north than that proposed by 7A10D*. I have attached two maps to illustrate this point. One shows the location the high hazard was proposed in the alignment that was denied permit. (Northern Alignment Alternative). The second depicts with a red line where the denied dam location was relative to Fargo's current 7A/10D proposal. (7A-10D).

13. The Richland-Wilkin JPA has always maintained that the original NED plan was a reasonable less impact alternative that should serve as the true baseline for comparison. The NED plan proposed a simple Minnesota side diversion, one-half the size of Fargo's plan, which fully protected the FM Metro while preserving the existing flood plains both North and South of the cities. This cost-efficient alignment, with its inlet north of the Wild Rice / Red River confluence, stands as proof that Fargo's past or current 7A/10D plan cannot survive the "least impact solution" test required by Minnesota statute.
14. JPA has asked its attorney to seek summary disposition, because we believe that the current procedural course cannot efficiently arrive at a final conclusion that delivers flood control to Fargo and Moorhead while meeting Minnesota permitting criteria.
15. Proceedings in the Federal District Court, the 8th Circuit, the Minnesota Court of Appeals

EXHIBIT C

and this contested case were all stayed based on the representations that the parties would work towards a settlement. Now we have all of those litigations plus a second permit application. Two alternatives have been presented that provide acceptable flood protection to Fargo and Moorhead, both with dramatically less impacts. One is the Minnesota Diversion, the NED project recommended by USACE in 2010. The second is the JPA proposal, which also dramatically reduces impacts. But there is no forum for those alternatives to be considered, because Diversion Authority and USACE have been allowed to veto even their consideration.

16. For over 5 years, JPA has been advocating that in order to meet Minnesota permitting requirements, a least impact solution must be selected. However, neither the Minnesota environmental review nor the Minnesota permitting process are proceeding to identify that least impact solution. Minnesota DNR does not – and did not --examine the least impact solution in its environmental review. Minnesota DNR did not identify the least impact solution in the first permitting proceeding, but rather rejected the first application as being unpermittable. The second application procedure is going around the same merry go round and is likely to end up with a permit rejection without a selection of the least impact solution. If that happens, we will then have two separate contested cases, neither of which will produce a least impact solution.

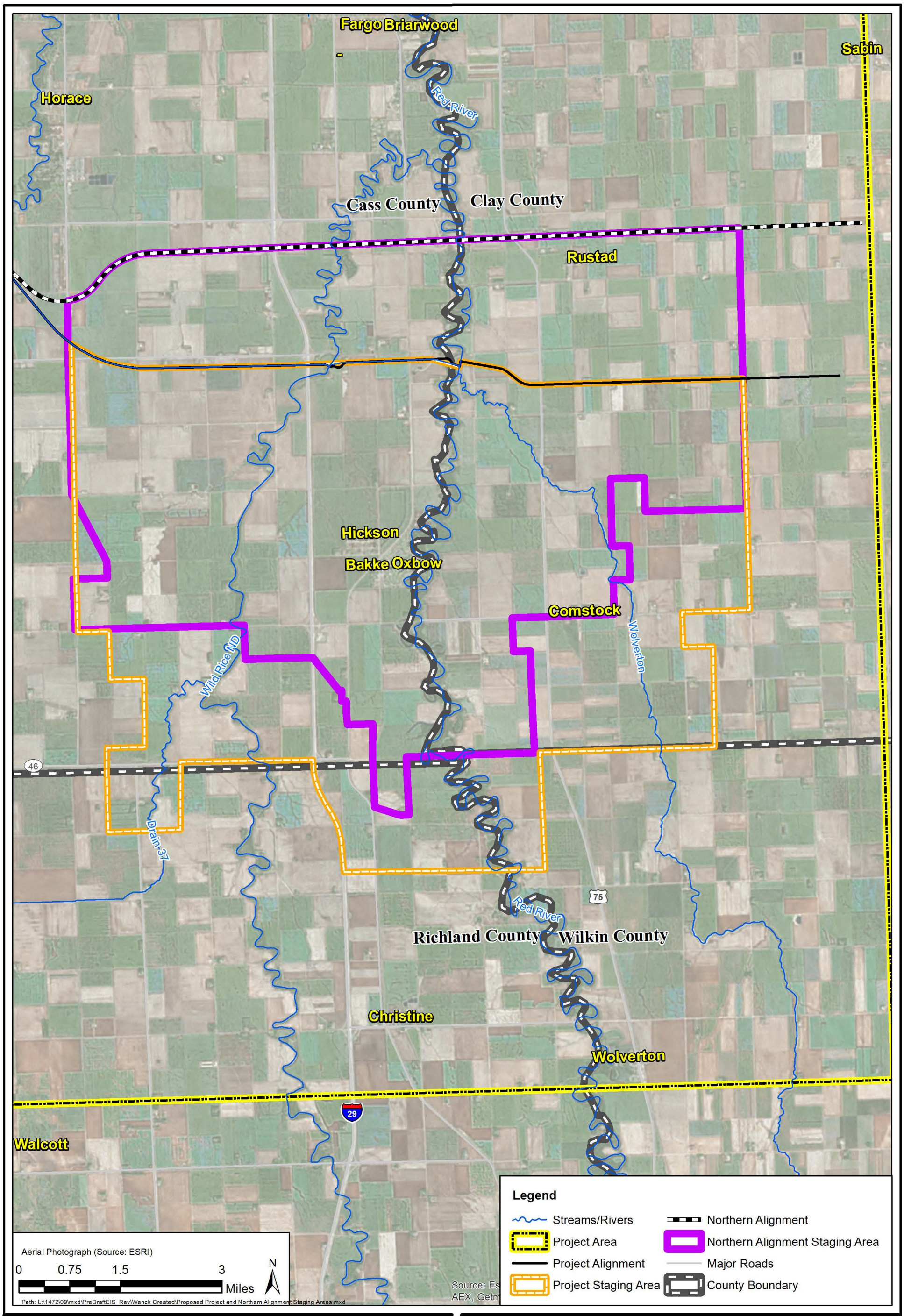
EXHIBIT C

I declare under penalty of perjury, pursuant to Minn. Stat. §358.116, that everything I have stated in this document is true and correct.

Executed this 31 day of May, 2018, in the County of Cass, State of Minnesota.

Cash Aaland

EXHIBIT C



FARGO-MOORHEAD FLOOD RISK MANAGEMENT PROJECT

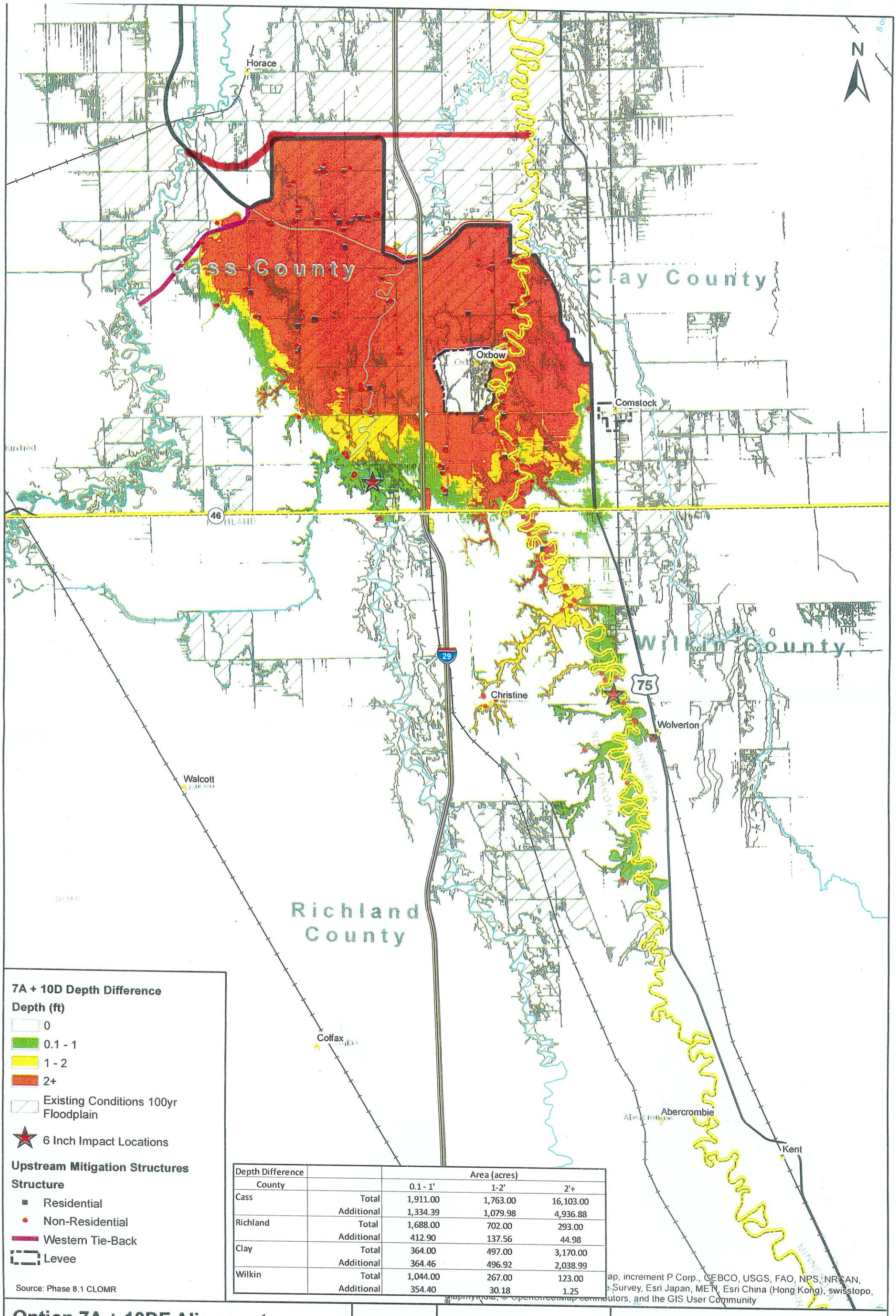
Proposed Project and Northern Alignment Staging Areas

Created By: ShuJC0243 Date Created: 05/22/2015 Date Exported: 2/17/2016

Figure 7

Source: 2014 1202 Diversion Authority Northern_Alt_Staging_Area Shapefile; 2012 11 SEAW Figure 4 Project Features Shapefile.

EXHIBIT C



Depth Difference		Area (acres)		
County		0.1 - 1'	1-2'	2'+
Cass	Total	1,911.00	1,763.00	16,103.00
	Additional	1,334.39	1,079.98	4,936.88
Richland	Total	1,688.00	702.00	293.00
	Additional	412.90	137.56	44.98
Clay	Total	364.00	497.00	3,170.00
	Additional	364.46	496.92	2,038.99
Wilkin	Total	1,044.00	267.00	123.00
	Additional	354.40	30.18	1.25

Option 7A + 10DE Alignment Depth Difference Map

Created By: enelson Date Created: 12/06/2017 Date Exported: 1/20/2018 Image: 2016 County NAIP Elevation Data: -
Coordinate System: NAD 1983 UTM Zone 14N Datum: North American 1983
H:\Fargo\JBN\7400\7438\13_7438_015\Minnesota Dam Safety Permit\Small Team\2017-11-13 Tech Advisory Com\GIS\H7A_10DE_DD.mxd

N W E S

0 0.375 0.75 1.5
Miles

HMG

EXHIBIT C

Comment 39

From:	Lynn F
To:	MN_Review, Environmental (DNR)
Date:	Monday, June 11, 2018 3:57:09 PM
Attachments:	image001.png FM Diversionx.pdf.docx

To whom it may concern – please see attached letter re: the FM Diversion project. Thank you

Lynn Fundingsland, Executive Director
Fargo Housing & Redevelopment Authority
325 Broadway
Fargo, ND 58102
Ph: 701-478-2552
Fax: 701-478-2612
lynnf@fargohousing.org **Empowering people to achieve independence through housing**

June 11, 2018

Jill Townley, Project Manager
Environmental Policy and Review Unit, Box 25
Ecological and Water Resources Division, DNR
500 Lafayette Road,
St. Paul, MN 55155-4025

Ref: Fargo-Moorhead Flood Risk Management Project **39 a**

Dear Ms. Townley,

We strongly support the Fargo-Moorhead Flood Risk Management Project as approved by the U.S. Army Corps of Engineers, and recommend your agency approve it as well.

The need for permanent flood control is a crucial one in our part of North Dakota. Several local rivers, including the Red and Sheyenne, flow near or through the metro area and are prone to flooding. When this occurs in the Fargo-Moorhead metro area, serious economic and social disruption is the result. Fargo-Moorhead is a major regional center for commerce, transportation, and other economic needs. As such we support the proposed action over the other alternatives for several reasons:

1. It has already received approval at the federal level, meaning that it has undergone a rigorous and comprehensive environmental review and been found to have little or no adverse environmental impacts. Moreover, a different action, like the Northern Alignment Alternative, would need to undergo the same process again, a waste of taxpayer money, time, and resources.
2. The proposed project is technically sound, and will best serve the purpose of providing a permanent solution to reduce flood risk, damage, and protection costs.
3. Taking the "no action" approach will not provide substantive or reliable protection against even 50-year flood events, let alone 100-year or more.
4. Lack of approval for the project will result in a new FEMA mapping, which would likely raise the flood plain and put the property values of many additional homes and businesses at great risk, while simultaneously driving up insurance costs.
5. The proposed project will meet or exceed all state and federal standards, but be owned and operated by a local authority.

There can be little disagreement as to the need for a project of this type. Given the federal approval, the well-thought-out design of this project, and the urgency it demands, we again recommend that the DNR approve of it without delay. **39 b**

Sincerely,

On behalf of The Board of Commissioners of the Fargo Housing and Redevelopment Authority

Lynn Fundingsland
Executive Director

Lynn Fundingsland, Executive Director
Fargo Housing & Redevelopment Authority
325 Broadway
Fargo, ND 58102
Ph: 701-478-2552
Fax: 701-478-2612
lynnf@fargohousing.org

Comment 40

From: Katie Mastel
To: MN_Review, Environmental (DNR)
Subject: Fargo-Moorhead SEIS
Date: Monday, June 11, 2018 4:27:31 PM
Attachments: image001.png
The Chamber- FM SEIS.pdf
Tom Dawson- FM SEIS.pdf

Good afternoon,

Attached are two comments on the scope of the SEIS for the Fargo-Moorhead Diversion Authority's revised Flood Risk Management Project. The addresses for both of the letters are below. Please let me know if you need any additional information.

Craig Whitney
FMWF Chamber of Commerce
202 1st Ave N
Moorhead, MN 56560

Tom Dawson
Dawson Insurance
721 1st Ave N
Fargo, ND 58102

Thanks,
Katie

Katie Mastel
Public Affairs Intern

218.359.0512

THE CHAMBER
FARGO MOORHEAD WEST FARGO

THE CHAMBER
FARGO MOORHEAD WEST FARGO

June 11, 2018

Jill Townley
Minnesota Department of Natural Resources
500 Lafayette Road
Box 25
St. Paul, MN 55155-4025

Ref: Fargo-Moorhead SEIS

Dear Ms. Townley,

Thank you to the DNR for the attention to the Fargo-Moorhead Flood Risk Management Project, and for the ability to offer feedback on it. The FMWF Chamber of Commerce supports this crucial initiative. 40a

We commend the ND/MN Governor's joint taskforce for analyzing alternatives and think it greatly contributed to the success of this group. We are glad to see you are studying the material from this collaborative taskforce.

The Chamber has remained highly interested in this project as it has become an economic development issue in the area. The economic certainty that the diversion brings is necessary for the economic development and infrastructure growth of the Fargo, Moorhead, West Fargo area.

As this project is one of high priority, we support a progressive timeline. It is vital that this project stay on track with the current timeline as recent delays due to various circumstances have caused a rise in price and ongoing uncertainly.

Thank you again for your attention and the ability to provide feedback. We hope the results of the ND/MN Governor's joint taskforce prove helpful in this process and the project is able to move forward on the current timeline.

Sincerely,

Craig Whitney
President/CEO
The Chamber

Comment 41

From: Katie Mastel
To: MN_Review, Environmental (DNR)
Subject: Fargo-Moorhead SEIS
Date: Monday, June 11, 2018 4:27:31 PM
Attachments: image001.png
The Chamber- FM SEIS.pdf
Tom Dawson- FM SEIS.pdf

Good afternoon,

Attached are two comments on the scope of the SEIS for the Fargo-Moorhead Diversion Authority's revised Flood Risk Management Project. The addresses for both of the letters are below. Please let me know if you need any additional information.

Craig Whitney
FMWF Chamber of Commerce
202 1st Ave N
Moorhead, MN 56560

Tom Dawson
Dawson Insurance
721 1st Ave N
Fargo, ND 58102

Thanks,
Katie

Katie Mastel
Public Affairs Intern

218.359.0512

THE CHAMBER
FARGO MOORHEAD WEST FARGO

June 11, 2018

Jill Townley
Minnesota Department of Natural Resources
500 Lafayette Road
Box 25
St. Paul, MN 55155-4025

Ref: Fargo-Moorhead SEIS

Dear Ms. Townley,

Thank you for ability to offer feedback on the Fargo-Moorhead Flood Risk Management Project, and thank you to the DNR for the regard to this vital project. As a business owner in Fargo, I fully support the Project and timeline it is currently on. 41a

The diversion isn't only a concern of flood protection for homes, but businesses as well. This has become an issue of economic certainty for businesses like mine. The sooner the diversion is able to be completed the faster we, as a growing community, are able to develop and expand.

The joint North Dakota and Minnesota Governors' taskforce was diligent in exploring alternatives, thus, I am pleased to see that the material it generated is being studied.

I appreciate the timeline we are set on for this project, as it will allow us to quickly reach more economic certainty and allow for further growth. Thank you again for your regard of this project and the ability for input to be given on this vital project. I look forward to the outcome.

Sincerely,

Tom Dawson
Chairperson
The Business Leaders for Flood Protection Task Force

Comment 42

From: khouska707@aol.com
To: MN_Review, Environmental (DNR)
Subject: Fargo-Moorhead SEIS
Date: Monday, June 11, 2018 4:27:44 PM

Our names are Richard & Kristi Houska. We have lived in the Bakke Addition for almost 18 years. During the entire time we have lived here, our development has never flooded. This is one of the main reasons we purchased this particular plot of land to raise our family on. **42 a**

Currently, however, the Diversion Authority has been actively constructing a ring dike by our area. The majority of the residents in Bakke had voted against the ring dike and Oxbow had already shored up their flooding areas with a taxpayer funded ring dike. A new ring dike of this magnitude is ONLY necessary if the diversion is ever built.

At Township meetings where the Diversion Authority has been in attendance, questions were posed by Bakke residents asking about internal flood issues, snow issues, and maintenance issues associated with the ring dike now being constructed. The majority of the concerns the Diversion Authority was not even able to answer. A great concern is that this is just a small piece of the project with no solutions yet presented. **42 b**

Even without the necessary MN permits, the Diversion Authority continues to spend money on a non-permitted project. Fargo continues to build in the flood plain contributing greatly to their own problems. This Plan B is STILL about displacing water from an already established natural floodplain unto land that has never flooded all for the future development of Fargo. **42 c**

Sincerely,
Richard and Kristi Houska

Comment 43

From:	Shelley Lewis
To:	MN_Review, Environmental (DNR)
Subject:	Fargo-Moorhead Flood Risk Management Project SEIS
Date:	Monday, June 11, 2018 4:43:53 PM
Attachments:	DNR_Holy_Cross_Township.pdf

June 11, 2018

Jill Townley
SEIS Project Manager
MN--DNR

Dear Ms. Townley,

Following are issues that we, the Holy Cross Township Board members, believe have not been addressed adequately by the Diversion Authority, suggesting that the second permit be DENIED: 43 a

The F-M Diversion Board's "Plan B" does not adhere to the findings and stipulations regarding water impoundment projects in Holy Cross Township, Ordinance No. 0001--An Interim Ordinance Establishing a Moratoriam on Water Impoundment Within Holy Cross Township, Clay County, Minnesota. (Copy of ordinance to follow.) 43 b

Overall mitigation is lacking. 43 c

Four township roads will be impacted. The dam project would cut off four township roads, also known as "farm to market" roads. 43 d

Drainage issues need further study as does winter snow buildup along Highway 75.

The land west of Highway 75 is out of the 100 year flood plain. The natural draws hold spring flood water, but the land itself is out of the flood plain.

Property acquisition is a prerequisite to both the permit and the project construction. This MN state rule or statute is not being enforced as it should be followed. The same would be true of easements. 43 e

One Holy Cross Cemetery is to expect much inundation and needs to be mitigated properly. 43 f

The population of Comstock and many residents in the township are in the shadow of the tieback levee. Dangerous. 43 g

Sincerely,

Holy Cross Township Board members
(Clay County, Minnesota)

Mark Anderson
Tim Leiseth
Bob Askegaard
Rick Brakke
Darin Brandtr

TODD & SHELLEY LEWIS

Comment 44

From: Toby Christensen
To: MN_Review, Environmental (DNR)
Subject: Fargo-Moorhead SEIS
Date: Monday, June 11, 2018 4:56:51 PM

Jill Townley, EIS Project Manager
Environmental Review Unit
Ecological and Water Resources Division
Minnesota DNR
500 Lafayette Road
St. Paul, Minnesota, 55155-4025

Dear Ms. Townley,

I'm writing you today as a 35+ year Moorhead resident and 20+ year Moorhead business owner that employs about 40 individuals in the concrete construction industry. I want you to know that I, and many of my neighbors are grateful for the time, effort and energy put forth by the MN DNR, Governor Dayton and staff, Governor Burgum and staff, and numerous others to get to this point of developing an SEIS regarding Fargo-Moorhead Flood Risk Management Project after the modifications being recommended as a result of the Governor's Joint Task Force. It seems the group was able to agree on a number of modifications that will hopefully reduce some negative impacts, while still providing much needed flood protection for many in our communities.

As I know you've heard and continue to hear, it is imperative that Fargo/Moorhead get some sort of permanent flood protection in lieu of utilizing the temporary measures that have been used in the past. I have been involved in fighting back the flooding Red River numerous times (four of the seven highest crests have happened in the last 12 years), with temporary clay and sandbag dikes. While, for the most part we have won this battle as a community, many individual property owners did not win, and it's likely that at some time in the future, our community won't win either. Through the 1997 and 2009 floods, conducting business as usual pretty much came to a standstill for one to three weeks for many businesses including ours.

If this project doesn't move forward, it is likely that FEMA will revise the 100 year base flood elevation to a higher level which will result in many over 1000 additional homeowners in Moorhead having to carry flood insurance, which will likely force some of them into selling as they won't be able to afford the additional cost (my understanding is the premium will vary, but be at minimum $400/year, and possibility of being up to $7,000/year for some homeowners depending on elevation of lowest level living space floor).

The proposed project is sound, it has been studied thoroughly, it will provide permanent flood protection for a vital metro area, and it has been modified to a point agreed upon by a task

force that brought all affected parties together. The recent major floods in the Red River Valley devastated Breckenridge/Wahpeton, Ada, East Grand Forks/Grand Forks, and numerous other small municipalities. All of these now have permanent flood protection in place. Let's not wait for the Moorhead/Fargo area to go through another 100 year flood event and not be able to fight it off with temporary measures. The human toll, the economic toll, the property toll would be devastating. 44a

Thank you for your time and attention in this matter.

Toby Christensen
CAMRUD FOSS CONCRETE CONSTR.
www.camrudfoss.com
3300 8th Street South
Moorhead, MN 56560
Ph: 218-233-0065
Fax: 218-233-0475
Cell: 701-219-0400
toby@camrudfoss.com

Comment 45

NORTH DAKOTA
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION
Gold Seal Center, 918 E. Divide Ave.
Bismarck, ND 58501-1947
701.328.5200 (fax)
www.ndhealth.gov

June 11, 2018

Ms. Jill Townley, SEIS Project Manager
Box 25
Ecological & Water Resources Division, DNR
500 Lafayette Road
St. Paul, MN 55155-4025

Re: Fargo-Moorhead Flood Risk Management - Revised Project
Cass County, North Dakota

Dear Ms. Townley:

This department has reviewed the information concerning the above-referenced project submitted under date of May 21, 2018, with respect to possible environmental impacts.

This department believes that environmental impacts from the proposed construction will be minor and can be controlled by proper construction methods. With respect to construction, we have the following comments: 45 a

1. Care is to be taken during construction activity near any water of the state to minimize adverse effects on a water body. This includes minimal disturbance of stream beds and banks to prevent excess siltation, and the replacement and revegetation of any disturbed area as soon as possible after work has been completed. Caution must also be taken to prevent spills of oil and grease that may reach the receiving water from equipment maintenance, and/or the handling of fuels on the site. Guidelines for minimizing degradation to waterways during construction are attached.

2. Projects disturbing one or more acres are required to have a permit to discharge storm water runoff until the site is stabilized by the reestablishment of vegetation or other permanent cover. Further information on the storm water permit may be obtained from the Department's website or by calling the Division of Water Quality (701-328-5210). Check with the local officials to be sure any local storm water management considerations are addressed. Storm water runoff from the project area discharges to two 303(d) listed water bodies (Red River and Sheyenne River). Storm water runoff from the project area also discharges to a water body that has a total maximum daily load allocation and is listed as impaired under section 303(d) of the Federal CWA (Wild Rice River). Extra care should be taken to ensure construction activity does not affect the water body.

3. Portions of the proposed project overlie the West Fargo glacial drift aquifer and several community wellhead protection areas. Care should be taken to avoid spills of any materials that may have an adverse effect on groundwater quality. All spills must be immediately reported to this Department and appropriate remedial actions performed.

The department owns no land in or adjacent to the proposed improvements, nor does it have any projects scheduled in the area. In addition, we believe the proposed activities are consistent with the State Implementation Plan for the Control of Air Pollution for the State of North Dakota.

These comments are based on the information provided about the project in the above-referenced submittal. The U.S. Army Corps of Engineers may require a water quality certification from this department for the project if the project is subject to their Section 404 permitting process. Any additional information which may be required by the U.S. Army Corps of Engineers under the process will be considered by this department in our determination regarding the issuance of such a certification. 45 b

If you have any questions regarding our comments, please feel free to contact this office.

Sincerely,

L. David Glatt, P.E., Chief
Environmental Health Section

LDG:cc
Attach.

NORTH DAKOTA
DEPARTMENT *of* HEALTH

ENVIRONMENTAL HEALTH SECTION
Gold Seal Center, 918 E. Divide Ave.
Bismarck, ND 58501-1947
701.328.5200 (fax)
www.ndhealth.gov

Construction and Environmental Disturbance Requirements

These represent the minimum requirements of the North Dakota Department of Health. They ensure that minimal environmental degradation occurs as a result of construction or related work which has the potential to affect the waters of the State of North Dakota. All projects will be designed and implemented to restrict the losses or disturbances of soil, vegetative cover, and pollutants (chemical or biological) from a site.

Soils

Prevent the erosion of exposed soil surfaces and trapping sediments being transported. Examples include, but are not restricted to, sediment dams or berms, diversion dikes, hay bales as erosion checks, riprap, mesh or burlap blankets to hold soil during construction, and immediately establishing vegetative cover on disturbed areas after construction is completed. Fragile and sensitive areas such as wetlands, riparian zones, delicate flora, or land resources will be protected against compaction, vegetation loss, and unnecessary damage.

Surface Waters

All construction which directly or indirectly impacts aquatic systems will be managed to minimize impacts. All attempts will be made to prevent the contamination of water at construction sites from fuel spillage, lubricants, and chemicals, by following safe storage and handling procedures. Stream bank and stream bed disturbances will be controlled to minimize and/or prevent silt movement, nutrient upsurges, plant dislocation, and any physical, chemical, or biological disruption. The use of pesticides or herbicides in or near these systems is forbidden without approval from this Department.

Fill Material

Any fill material placed below the high water mark must be free of top soils, decomposable materials, and persistent synthetic organic compounds (in toxic concentrations). This includes, but is not limited to, asphalt, tires, treated lumber, and construction debris. The Department may require testing of fill materials. All temporary fills must be removed. Debris and solid wastes will be removed from the site and the impacted areas restored as nearly as possible to the original condition.

Comment 46

North Dakota Department of Transportation

Thomas K. Sorel
Director

Doug Burgum
Governor

June 18, 2018

Jill Townley, Project Manager
Box 25
Ecological and Water Resource Division, DNR
500 Lafayette Road
St. Paul, Minnesota 55155-4025

FM RISK MANAGEMENT REVISED PROJECT, FARGO MOORHEAD, NORTH DAKOTA, MINNESOTA

46a

We have reviewed your May 21, 2018, letter.

This project should have no adverse effect on the North Dakota Department of Transportation highways.

However, if because of this project any work needs to be done on highway right of way, appropriate permits and risk management documents will need to be obtained from the Department of Transportation District Engineer, Robert Walton at 701-239-8903.

Robert Fode

ROBERT A. FODE, P.E., DIRECTOR – OFFICE OF PROJECT DEVELOPMENT

57/raf/js
c: Robert Walton, Fargo District Engineer

608 East Boulevard Avenue • Bismarck, North Dakota 58505-0700
Information: 1-855-NDROADS (1-855-637-6237) • FAX: (701) 328-0310 • TTY: 711 • dot.nd.gov