



Ecological and Water Resources

500 Lafayette Road, Box 25

St. Paul, MN 55155-4025

December 27, 2018

Minnesota Legislative Reference Library

ATTN: Acquisitions

645 State Office Building

100 Dr. Martin Luther King Jr. Blvd

St. Paul, MN 55155

Enclosed is a copy of the Record of Decision (ROD) concerning the Final Supplemental Environmental Impact Statement (Final SEIS), prepared by Minnesota DNR (DNR), for the Fargo-Moorhead Flood Risk Management Project (Project). Please keep the enclosed ROD with any Fargo-Moorhead documents you have on file, such as the Final SEIS, Draft SEIS, and Preparation Notice document, until February 1, 2019.

The DNR, as the Responsible Government Unit (RGU) is charged with determining adequacy for the Final SEIS for the proposed Project. Minnesota Rules, part 4410.2800, subpart 4 require the RGU find the Final SEIS adequate if:

- The Final SEIS analyzed topics identified in scoping.
- The Final SEIS responded to substantive comments received on the draft SEIS.
- DNR prepared the Final SEIS in compliance with procedures of Minnesota Rules, parts 4410.0200 to 4410.6500.

Based upon the Findings of Fact and Conclusions contained in the ROD and the entire record of proceedings, the DNR has determined that the Final SEIS for the proposed Project is adequate. This determination, dated December 26, 2018, concludes the state environmental review process for the Project.

The ROD is available at this web address: mndnr.gov/fmproject. A physical copy is also available at the following locations:

- DNR Library, 500 Lafayette Road, St. Paul, MN 55155
- DNR Northwest Region, 2115 Birchmont Beach Rd NE, Bemidji, MN 56601
- Minneapolis Central Library, 300 Nicollet Mall, Minneapolis, MN 55401, Gov. Documents, 2nd Floor
- Moorhead Public Library, 118 5th St. S, Moorhead, MN 56560
- Fergus Falls Public Library, 205 E. Hampden Ave, Fergus Falls, MN 56537
- Fargo Public Library Downtown, 102 3rd Street North, Fargo, ND 58102

To request a copy of the ROD, contact the DNR at (651) 259-5168 or via email at jill.townley@state.mn.us.

Sincerely,

Jill Townley

Project Manager

Equal Opportunity Employer



Ecological and Water Resources

500 Lafayette Road

St. Paul, MN 55155

December 27, 2018

To: Those on the Environmental Quality Board (EQB) Distribution List, Other Interested Parties

Subject: Notice of Completion: Fargo-Moorhead Flood Risk Management Project Supplemental Environmental Impact Statement Record of Decision (ROD) and Permit Decision

Pursuant to the requirements of Minnesota Rules 4410.2800, subpart 6, Interested Parties are hereby notified that on December 26, 2018, the Minnesota Department of Natural Resources (DNR) determined that the Final Supplemental Environmental Impact Statement (Final SEIS) for the Fargo-Moorhead Flood Risk Management Project (Plan B) was adequate. This concludes the state environmental review process for the Project. The Record of Decision (ROD) for the Adequacy Determination is enclosed/attached.

Following completion of environmental review, on December 27, 2018, the Minnesota Department of Natural Resources (DNR) made an Order (decision) on the Diversion Authority's Dam Safety and Public Waters permit application.

The DNR determined that the Dam Safety and Public Waters Work Permit Application 2018-0819 for the Fargo-Moorhead Flood Risk Management Project "Plan B", in Clay and Wilkin Counties, Minnesota, and Cass and Richland Counties, North Dakota, is **APPROVED**. The DNR's rationale for the decision is explained in the Findings of Fact document, which is available for download at mndnr.gov/fmproject

Sincerely,

Jill Townley
Planner Principal

Equal Opportunity Employer

**STATE OF MINNESOTA
DEPARTMENT OF NATURAL RESOURCES**

RECORD OF DECISION

In the Matter of the Final Environmental Impact)	
Statement for the Fargo-Moorhead Flood Risk)	
Management Project, Clay and Wilkin Counties,)	
Minnesota, and Cass and Richland Counties,)	FINDINGS OF FACT, CONCLUSIONS AND
North Dakota, Pursuant to Minnesota Rules,)	ORDER
Parts 4410.0200 to 4410.6500)	

Based upon, and after having considered the entire record of the proceeding, including written reports, written and oral data, information, and statements, the Minnesota Department of Natural Resources (DNR) makes the following:

I. FINDINGS OF FACT

Project Description

1. The proposed Fargo-Moorhead Flood Risk Management Project (Project) is a diversion channel system flood control project designed to divert flood waters around the communities of Fargo, North Dakota (ND), Moorhead, Minnesota (MN), and surrounding areas. The proposed Project is intended to operate at or above the 10-year flood (approximately). Project components include, but are not limited to: a system of excavated channels; a channel inlet control structure; tie-back levee/dam embankments; river control structures on the Red and Wild Rice Rivers; an upstream floodwater staging area (staging area); aqueducts and inlet structures on tributaries; levees and floodwalls in the Fargo-Moorhead (F-M) Metropolitan Area and the upstream staging area; community ring levees; non-structural features (such as buy-outs, relocations, or raising individual structures); recreational features (such as multipurpose trails and pedestrian bridges); and environmental mitigation projects located inside and outside the project area. *Final Environmental Impact Statement: Fargo-Moorhead Flood Risk Management Project, § 2.1* (May 2016) (hereinafter State FEIS).
2. The Project is proposed to be located in Clay and Wilkin Counties, Minnesota, and Cass and Richland Counties, North Dakota, approximately 12 miles west to 6 miles east of the Red River of the North (Red River) and from 20 miles north to 20 miles south of Interstate Highway 94. Components of the proposed Project are located on the Red River, on the borders of Minnesota and North Dakota.
3. The Project Proposer is the Flood Diversion Board of Authority (Diversion Authority). The Diversion Authority was created in 2011 when the Cities of Fargo and Moorhead along with Cass County (North Dakota), Clay County (Minnesota), the Cass County Joint Water Resources District, and the Buffalo-Red River Watershed District entered into a joint powers agreement (JPA). The purpose of the JPA is to establish a framework for the planning, design and management of the proposed Project. The Diversion Authority has also partnered with the United States Army Corps of Engineers (USACE) to plan, secure funding for, and construct the Project. Ownership and operation of the Project would be the collective responsibility of the

Diversion Authority, the City of Moorhead and the City of Fargo, and the non-Federal sponsors or local sponsors. More information about the Diversion Authority/Project Proposer can be found in State FEIS § 1.2.

Federal Environmental Review

4. The USACE, in July 2011, issued a Final Feasibility Report and Environmental Impact Statement (FFREIS) for the Project. The FFREIS was conducted in accordance with the applicable requirements of the National Environmental Policy Act (NEPA). State FEIS §1.3.1. The FFREIS was prepared by the USACE in cooperation with the local sponsors. The USACE's Record of Decision (Federal ROD) was issued in April 2012. The USACE designated the Locally Preferred Plan (LPP) as its Selected Plan.
5. Following the issuance of the Federal ROD, on October 11, 2012, the Diversion Authority and the USACE made a series of changes to the LPP to reduce potential impacts. State FEIS § 1.3.1. Because these proposed changes were a substantial change to the Project design, the USACE, in June 2013, prepared and issued a Draft Supplemental Environmental Assessment (SEA). In September 2013, the USACE issued a Final Supplemental EA (Final SEA) and a 'Finding of No Significant Impact' (FONSI).
6. The DNR submitted multiple comment letters on the documents leading up to the FFREIS and the Final SEA. Among other substantive comments, the DNR informed the USACE that because the Project included a high hazard dam on the Red River, the proposed Project required preparation of a Minnesota State Environmental Impact Statement (EIS).
7. The primary design elements of the alternative described in the Final SEA were incorporated into the description of the Project for the Minnesota EIS process. The FFREIS and the Final SEA are incorporated into the Minnesota EIS by reference pursuant to Minnesota Rules (Minn. R.) 4410.2400 (2015).

State Scoping

8. Minnesota Statute (Minn. Stat.) § 116D.04, subd. 2a (2014), requires the preparation of an EIS for any major government action that has the potential of significantly impacting the environment. Minnesota Rules 4410.2000 (2015) requires the preparation of an EIS for any project that meets or exceeds any of the thresholds included in Minn. R. 4410.4400 (2015).
9. Minnesota Rules 4410.4400, subp. 18 (2015), mandates that the preparation of an EIS for the proposed construction of any Class 1 dam. Part 4410.4400, subp. 18 (2015), also designates the DNR as the Responsible Governmental Unit (RGU) responsible for preparing the EIS for all Class 1 dam projects. The proposed Project's water control structures for the Red River, Wild Rice River, and dam embankments would be classified as a Class 1 (high hazard) dam.
10. Minnesota Rules 4410.3900, subp. 3 (2015), requires the RGU to use any previously prepared federal EIS as the state Draft EIS if the federal EIS addresses the issues identified in the state scoping process. DNR's comments on the federal EIS documents and the result of state EIS scoping process, however, identified the need for additional analysis as part of the state EIS.
11. A primary objective of environmental review is to eliminate duplication of effort. Minn. R. 4410.0300, subp. 4E (2015). Therefore, consistent with the requirements of Minn. R. 4410.3900, subp. 1 (2015), the DNR worked in cooperation with the USACE to develop and incorporate applicable information from the federal documents into the state environmental review process and documents.

12. DNR prepared both the Scoping Environmental Assessment Worksheet (SEAW) and Draft Scoping Decision Document (DSDD). Minn. R. 4410.2100, subp. 2 (2015). In accordance with the requirements of Minn. R. 4410.2100, subp. 3 (2015), both the SEAW and the DSDD were made available for public review during a 30-day scoping period. The scoping period commenced on April 15, 2013 when the DNR issued a press release and a notice of availability in the EQB Monitor. The scoping period extended until May 15, 2013.
13. On May 8, 2013, the DNR held a public scoping meeting in Moorhead, MN, as required by Minn. R. 4410.2100, subp. 3B (2015), which requires an RGU to hold a public meeting on the scoping documents not less than 15 business days after the publication of the notice of availability of the SEAW.
14. The DNR considered public comments on the SEAW and DSDD, made revisions to the EIS scope, and prepared a Final Scoping Decision Document (FSDD).
15. On February 17, 2014, the DNR published a notice of availability of the FSDD in the EQB Monitor. Minn. R. 4410.2100, subp. 3C (2015). The notice of availability included those components required by Minn. R. 4410.2100, subp. 6 (2015).
16. The contents of the FSDD included the topics required to be addressed in the EIS. Minn. R. 4410.2100, subp. 6A through F (2015).
17. During scoping, a number of topics were considered for inclusion in the EIS that were found to have such minor effects that they did not warrant further analysis in the EIS. Topics eliminated because of minor significance during scoping were:
 - Water surface use (Scoping EAW Item 15)
 - Vehicle related air emissions (Scoping EAW Item 22)
 - Stationary source air emissions (Scoping EAW Item 23)
18. The scoping process also identified a number of topics that had the potential for significant effects, but which were not carried forward for further evaluation in the State environmental review process because they had been adequately analyzed in the FFREIS. Topics covered by the FFREIS and eliminated from further review in the state's environmental review process were:
 - Water use (Scoping EAW Item 13)
 - Erosion and sedimentation from construction activities (Scoping EAW Item 16)
 - Water quality: surface water runoff (Scoping EAW Item 17)
 - Water quality: wastewaters (Scoping EAW Item 18)
 - Geological hazards and soil conditions (Scoping EAW Item 19)
 - Solid wastes, hazardous wastes, storage tanks (Scoping EAW Item 20)
 - Traffic (Scoping EAW Item 21)
 - Odors, noise and dust (Scoping EAW Item 24)
 - Visual impacts (Scoping EAW Item 26)
19. The topics identified for inclusion in the State FEIS were:
 - Potential environmental hazards due to past site users (Scoping EAW Item 9)
 - Cover types (Scoping EAW Item 10)
 - Fish, wildlife and ecologically sensitive resources (Scoping EAW Item 11), including fish passage and mortality, state-listed species and special status species, and impacts to wildlife and wildlife habitat from staging area utilization
 - Nearby resources (Scoping EAW Item 25), including archaeological and cultural resources
 - Compatibility with plans and land use regulations (Scoping EAW Item 27)
 - Impact on infrastructure and public services (Scoping EAW Item 28)

- Cumulative potential effects (Scoping EAW Item 29)
 - Project hydrology (Scoping EAW Item 30)
 - Socioeconomic analysis
 - Dam safety
 - Physical impacts to water resources (Scoping EAW Item 12), including stream stability, wetlands, and cold weather impacts to aqueduct function
 - Water-related land use management district (Scoping EAW Item 14)
 - Effectiveness of proposed mitigation and evaluation of whether additional mitigation is needed (Scoping EAW Item 30)
20. An estimated schedule for completion of the state environmental review process was included in the FSDD as required by Minn. R. 4410.2100, subp. 6B (2015).
21. Known governmental permits and approvals potentially required for the proposed Project were listed in the SEAW, Item 8, and discussed in the FSDD, as required by Minn. R. 4410.2100, subp. 6C through D (2015). No permits were identified for which permitting information would be developed concurrently with the preparation of the EIS. No permits were identified for which a record of decision would be required. All permit applications, however, will be processed separately from the environmental review process and the records for the required permit decisions will be compiled as the permit applications are processed.
22. The FSDD also identified alternatives that would be analyzed in the EIS. Minn. R. 4410.2100, subp. 6E (2015). Alternatives identified for analysis in the EIS process were those alternatives that addressed the purpose and need for the Project. In analyzing each alternative, the DNR examined whether the alternative met the purpose and need for the proposed Project, the environmental merits of the alternative and the socioeconomic merits of the alternative. See Minn. Stat. § 116D.04, subd. 2a (2014). The FSDD identified the following alternatives for inclusion in the EIS:
- The Base No Action Alternative, which included the potential flood risk reduction impact of already completed and currently funded flood control projects in the project area, such as levee construction and property buyouts;
 - The No Action Alternative (with Emergency Measures), which was based on the assumption that emergency measures currently employed in the project area would continue to be implemented as necessary to mitigate flooding;
 - The proposed Project, as described in ¶¶ 1 through 3 and in State FEIS at § 2.1;
 - The Northern Alignment Alternative (NAA), which includes many of the same components as the proposed Project but would place the tieback embankment and connecting channel approximately 1.5 miles north of the proposed Project's alignment and would move the staging area's southern boundary approximately 1.5 to 3 miles north. State FEIS at §2.2.2.2 (containing a more detailed description of the NAA).
 - The Distributed Storage Alternative (DSA), which includes flood barriers, watershed flood storage, wetland/grassland restoration, and non-structural measures intended to achieve the desired flood protection without a control structure or diversion channel. State FEIS at § 2.2.1.3 and App. C and D (containing a more detailed description of the DSA).
23. Special studies and research identified for consideration in the environmental review process included:
- Assessment of Socioeconomic Modeling Used in the FFREIS
 - Diversion Authority-Funded Research into Retention Projects

- Other topics identified in the “Summary of Studies to be used in EIS,” located in Section 6 of the FSDD.
Minn. R. 4410.2100, subp. 6G (2015).
24. On February 17, 2014, the DNR published in the EQB Monitor an EIS preparation notice for the proposed Project, as required by Minn. R. 4410.2100, subp. 9 (2015). The notice was published concurrently with the FSDD. No amendments to the scoping decision were made following this notice.

State Draft EIS

25. The DNR prepared a State Draft EIS (State DEIS) for the proposed Project as required by and consistent with Minn. R. 4410.2600, subp. 1 (2015); Minn. R. 4410.0200 to 4410.6500 (2015); and in accord with the Project FSDD.
26. The State DEIS analyzed the alternatives outlined in ¶ 22. After extensive analysis, the DSA was eliminated from further consideration because it was determined that the DSA was not a feasible and prudent alternative capable of meeting the purpose for the Project within the meaning of Minn. Stat. § 116D.04, subd. 6 (2014). State FEIS at § 2.2.1.3 and App. C .
27. On September 14, 2015, the DNR issued the State DEIS making it available for public review and comment pursuant to the requirements of Minn. R. 4410.2600 (2015). The State DEIS, together with a summary of the State DEIS, was distributed to the Environmental Quality Board (EQB) distribution list and other interested parties as required by Minn. R. 4410.2600, subps. 3 through 4 (2015). A notice of availability of the State DEIS was published in the EQB Monitor on September 14, 2015. The required 30-day minimum public comment period for the State DEIS extended from September 14 to October 28, 2015.
28. On October 14, 2015, the DNR held a public information meeting on the State DEIS in Moorhead, Minnesota. Two stenographers were present at the meeting to transcribe all public comments as required by Minn. R. 4410.2600, subp. 8 (2015).
29. The DNR received written comments on the State DEIS from a total of 340 different state and local agencies, non-governmental groups, and citizens. The DNR responded to all substantive comments in accordance with Minn. R. 4410.2600, subp. 10 (2015). Based on the comments received during the comment period, where needed, the DNR made revisions to the State FEIS. See State FEIS, App. L.

State Final EIS

30. DNR developed the State FEIS contents in accordance with the requirements of Minn. R. 4410.2300 (2015). Content in the State FEIS includes, but is not limited to: the cover sheet; summary; table of contents; list of preparers; project description; government approvals; alternatives; environmental, economic, employment, and sociological impacts; mitigation measures; and appendices.
31. Minnesota Statute § 116D.04, subds. 2a and 6 (2014) require the analysis of feasible and prudent alternatives as part of an EIS. Alternatives analyzed by the State FEIS included those described in ¶ 26 and set forth in the FSDD. The FSDD contains a detailed discussion on the alternatives advanced for analysis in the environmental review process and the rationale for not advancing other site alternatives, technological alternatives, and scale or magnitude alternatives. The rationale for an alternative not advancing in the environmental review process was because it was not a reasonable, feasible or prudent alternative.

32. After the public comment period on the State DEIS, the DNR evaluated additional alternatives raised during the public comment period. The DNR's analysis of alternatives raised in the public comment period is included in the Purpose & Need and Alternatives Rescreen Report, which is included in the State FEIS as Appendix M. The DNR evaluated the alternatives using the criteria set out in Minnesota Statute and Minn. R. 4410.2300 G (2015).
33. The EIS includes a thorough analysis of all environmental, economic, employment and sociological impacts of the Project and Project alternatives as required in Minn. R. 4410.2300 H (2015). See State FEIS Chps. 3 and 4.
34. The DNR also considered and analyzed both proposed and recommended monitoring and mitigation measures that could reasonably eliminate any adverse environmental, economic, employment, or sociological effects of the proposed Project pursuant to the requirements of See State FEIS Ch. 6 and Minn. R. 4410.2300 I (2015).
35. A number of major changes were made to the State DEIS following the 30-day public comment period. See Minn. R. 4410.2700, subp. 2 (2015) (providing direction to the RGU on responding to comments made during the DEIS comment period). In response to public comments, the draft text was rewritten and incorporated into the State FEIS. Major changes made to the State FEIS include:
- The Executive Summary was updated to add a discussion section to address "Areas of Controversy and Issues Yet to Be Resolved".
 - The Executive Summary was also updated to include a discussion of additional potential Project impacts not included in the State DEIS.
 - The Executive Summary Tables 2 through 20 were also updated to include additional proposed and recommended mitigation measures not included in the State DEIS.
 - Text changes were made to Chapters 1, 3, 5, 6, and 7 of the State DEIS in response to updated information and public comments.
 - Appendix H was updated to include additional correspondence.
 - New Appendices L, M, N and O, were added to the EIS document.
- See State FEIS at p. 5.
36. On May 16, 2016, the DNR issued the completed State FEIS and distributed it for public review in accordance with Minn. R. 4410.2700, subp. 3 (2015). The State FEIS was provided to those persons and entities on the EQB distribution list, all persons who submitted substantive comments of the State DEIS, and other interested parties as required by Minn. R. 4410.2700, subp. 3 (2015). On May 16, 2016, a notice of availability of the State FEIS was published in the EQB Monitor and the DNR issued a press release announcing the availability of the State FEIS and the commencement of the minimum 10-day review period required by Minn. R. 4410.2800, subp. 2 (2015). See Minn. R. 4410.2700, subps. 4 through 6 (2015).

Consideration of Comments on Adequacy

37. Timely comments provided during the May 16 to May 31, 2016 comment period were considered in the determination of adequacy for the State FEIS.
38. During the minimum 10-day review period, 18 commenters submitted a total of 54 substantive comments on the State FEIS. Two additional comment letters were received after the close of the comment period on May 31, 2016 at 4:30 p.m.
39. Many commenters argued that the State FEIS was inadequate and reiterated concerns on topics that had previously been raised prior to and addressed in the State FEIS. Some commenters

argued that the State FEIS failed to address the comments raised during the State DEIS public comment period. One commenter questioned DNR's evaluation of alternatives under Minn. Stat. § 116D.04, subd. 2a (2014).

40. All comments and issues raised therein were reviewed to determine if they were related to the three adequacy conditions set forth in Minn. R. 4410.2800, subp. 4 (2015). Comments related to any of the three mandatory adequacy requirements were analyzed and addressed. A summary of the comments on the State FEIS and responses to comments is attached hereto as Attachment 1 and made a part hereof. Upon request, comment letters will be provided to the project proposer and to permitting and/or approval entities and/or authorities for their consideration as part of further decisions about whether to permit, approve, and/or implement the Project.

EIS Topics

Purpose and Need

41. An alternative may be excluded from analysis if it would not meet the underlying need for or purpose of the Project; it would likely not have a 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 socioeconomic impacts. Minn. R. 4410.2300 G (2015).
42. The purpose for the Project as stated in the FFREIS was "...to reduce flood risk, flood damages and flood protection costs related to the flooding in the Fargo-Moorhead Metropolitan Area." *FFREIS* § 2.5.
43. A different Project purpose, however, was used for the Clean Water Act Section 404(b)(1) evaluation in the FFREIS. This purpose and need statement included the non-Federal sponsors' need to address flooding from the five tributaries. *FFREIS* Attachment 1.
44. In addition, during the State Scoping process for the State EIS, a determination was made that the criteria for alternative screening and analysis that were used by the USACE for the FFREIS would not meet the requirements for state environmental review set forth in Minn. R. 4410.2300 G (2015).
45. To adequately apply the State's alternative screening requirements set forth in Minn. Stat. § 116D.04, subds. 2 and 4 (2014) and Minn. R. 4410.2300 G (2015), the DNR needed one purpose and need statement. The DNR requested that the project proposer clarify the apparent discrepancy in project purposes identified in ¶¶ 42 through 43. DNR facilitated development of the Project purpose and need statement for the state environmental review with the Diversion Authority and the USACE. The DNR was mindful that, as recognized by numerous federal courts, the project purpose should not be so narrow as to preclude the analysis reasonable, environmentally benign alternatives. *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 196 (D.C. Cir. 1991) and *Audubon v. U.S. Dept. of Transp.* 524 F.Supp. 2d 642, 63-64 (D.Md. 2007). In establishing public purpose, the DNR also considered the State's paramount interest in public safety, flood control, agricultural economy, and the agricultural lands fundamental to that economy.
46. The purpose and need statement was revised by the Diversion Authority in consultation with the USACE to meet the needs of the state environmental review process. The Project purpose and need statement used by the DNR for the State environmental review is: "to reduce flood

risk, flood damages, and flood protection costs related to flooding in the F-M metropolitan area. To the extent technically and fiscally feasible, the Project will:

- Reduce flood risk potential associated with a long history of frequent flooding on local streams including the Red River, Sheyenne, Wild Rice, Maple, Rush and Lower Rush Rivers passing through or into the F-M metropolitan area;
- Qualify substantial portions of the F-M metropolitan area for 100-year flood accreditation (i.e., meets the standard to be shown on a Flood Insurance Rate Maps (FIRMS) as providing protection) by the Federal Emergency Management Agency (FEMA) under the National Flood Insurance Program (NFIP); and
- Reduce flood risk for floods exceeding the 100-year flood or greater, given the importance of the F-M metropolitan area to the region and recent frequencies of potentially catastrophic flood events.”

State FEIS § 1.4.

47. DNR received many public comments on the Draft EIS asserting that the Project purpose and need was too narrow and, therefore, improperly/inappropriately screened out other less impactful alternatives. To address these concerns, the DNR rescreened all alternatives identified during the scoping process and at the commencement of the State DEIS that had previously been eliminated as not reasonable or feasible in light of the Project purpose and need set forth in ¶ 46. For purposes of the rescreen, the DNR revised the Project purpose to include just one of the three purpose and need components. The one purpose and need component selected for the rescreening evaluation was 100-year flood accreditation. State FEIS App. M.
48. In an effort to identify a better solution than the proposed Project, commenters, during the State DEIS comment period, also provided many additional alternatives or variants of alternatives to the proposed Project. These proposed alternatives were also evaluated as part of the rescreening exercise; however, screening of these alternatives and variants did not result in the identification any additional reasonable alternatives that met the criteria contained in Minn. R. 4410.2300 G (2015). These proposals were, therefore, not advanced for consideration in the State FEIS. State FEIS App. M.
49. The DNR selected the work by the Expert Opinion Elicitation Panel (EOEP) as an appropriate hydrologic methodology to use for the impact and alternative analysis in the EIS. DNR received several public comments on the Draft EIS asserting that the EOEP inflated the flood protection levels that were needed to meet the Project Purpose. Many commenters suggested that the updated Period of Record (POR) or the FEMA flood discharge values (FEMA hydrology) should have been used instead of the EOEP hydrology because it could have allowed more alternatives to meet the Project purpose and need. In response to these concerns, DNR compared the EOEP to the POR and FEMA hydrology. State FEIS App. N. The comparison exercise indicated that the FEMA hydrology was outdated and is not a reasonable choice among hydrologic methodologies. Furthermore, the difference between the EOEP and the POR is very small. Based on this analysis, DNR concluded that it is unlikely that either the Project design or the results of the State EIS alternative analysis would have been substantially different had the DNR used the POR instead of the EOEP.

Alternatives

50. Minnesota Statutes § 116D.04 requires the RGU to analyze all “appropriate alternatives” and feasible and prudent alternatives less environmentally intrusive than those alternatives that are

likely to impair natural resources located within the state. Minn. Stat. § 116D.04, subds. 2a and 6 (2014). Additionally, Minn. R. 4410.2300 G (2015) requires the RGU to consider at least one alternative from each of the following categories: alternative sites; alternative technologies; modified design or layouts; modified scale or magnitude; and alternatives incorporating reasonable mitigation measures identified through comments received during EIS development. Alternatively, the RGU must explain why it has failed to explore alternatives within each of these categories. *Id.*

51. The DNR conducted an independent assessment of potential project alternatives within the above categories, some of which were alternatives discussed in the FFREIS. These alternatives were screened in the state scoping process to make a preliminary reasonability assessment. Those alternatives determined to meet the Project purpose and need, and upon initial evaluation also determined to be reasonable, were advanced for further analysis. *Alternatives Screening Report: Fargo-Moorhead Metropolitan Area Flood Risk Management Project (December 2012) (Alternatives Screening Report).*
52. In addition to the proposed Project, the FSDD advanced four additional Project alternatives for full analysis in the EIS: the Base No Action Alternative, the No Action Alternative (with Emergency Measures), the DSA, and the NAA. The No Action Alternative is a mandatory project alternative. Minn. R. 4410.2300 G (2015).
53. As noted in ¶ 41, an alternative may be excluded from analysis if it would not meet the underlying need for or purpose of the Project; it would likely not have a 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 socioeconomic impacts. Minn. R. 4410.2300 G (2015).
54. As described in the Distributed Storage Screening Analysis for the Draft EIS, DNR evaluated the DSA to determine if it addressed the Project purpose and need and should, therefore, be carried forward for evaluation in the EIS process. State FEIS App. C. The screening analysis indicated that the DSA is limited in its ability to meet the Project purpose and is not a feasible, prudent or reasonable alternative to the proposed Project. The DNR also analyzed an enhanced DSA that included other flood mitigation measures and concluded that enhancing the DSA did not substantially improve the performance of the DSA or the likelihood that the alternative could address the Project purpose. *Id.* Based on this information, the DSA was eliminated from consideration in the State DEIS.
55. As a result of the screening analysis, three alternatives, in addition to the proposed Project, were advanced for analysis and inclusion in the environmental review process. These included: the Base No Action Alternative, the No Action Alternative (with Emergency Measures), and the NAA.
56. The State FEIS compared the potentially significant impacts of the Project with those of other reasonable alternatives. State FEIS §§ 5.1.1 and 5.1.2. Both the Base No Action Alternative and the No Action Alternative (with Emergency Measures) were evaluated in the EIS, but were not included in the comparison of alternatives because the EIS evaluation concluded that neither of these alternatives could meet the proposed Project purpose. These alternatives were, therefore, found not to be reasonable. See State FEIS Table 5.1.
57. DNR received numerous public comments on the State DEIS requesting analysis of previously-screened (Scoping) alternatives, new alternatives, or reconfigurations of components of previously-screened alternatives. Some commenters offered only general descriptions of alternatives with insufficient detail to permit evaluation. DNR staff attempted to develop reasonable alternatives from information provided by commenters to undertake an evaluation

of the alternatives proposed by the commenters. In response to these public comments, DNR conducted an “Alternative Rescreen Exercise” to determine if any alternatives (Previously-Screened/New/Combination) should be reevaluated or newly-evaluated in the State FEIS. DNR rescreened the Scoping Alternatives, as well as the New/Combination alternatives proposed by the commenters, to assess their ability to achieve FEMA Accreditation (i.e., 100-year level of flood protection) and to determine if a lower impact alternative to the proposed Project existed. Many of these rescreened or newly-proposed alternatives did not meet the Project purpose and need. All of these alternatives were also evaluated using the criteria set forth in Minn. R. 4410.2300 G (2015) (i.e., similar environmental benefit but substantially less adverse economic, employment or sociological impacts over the Project). None of the Scoping Alternatives or the fifteen (15) New/Combination Alternatives passed all five steps of the rescreening criteria. Consequently, the DNR determined none of the Previously-Screened/New/Combination Alternatives were reasonable alternatives requiring further analysis. State FEIS App. M.

Environmental Effects

58. Based upon the information contained in the SEAW, FSDD and the State FEIS, the DNR identified the following key topics and potential environmental effects associated with the proposed Project that were evaluated in the State EIS process:

- Hydrology and Hydraulics
- FEMA Regulations and the Conditional Letter of Map Revision (CLOMR) Process
- Stream Stability
- Wetlands
- Cold Weather Impacts on Aqueduct Function and Biotics
- Cover Types
- Potential Environmental Hazards
- Fish Passage and Biological Connectivity
- Wildlife and Wildlife Habitat
- State-Listed Species and Special Status Species
- Invasive Species
- Cultural Resources
- Infrastructure and Public Services
- Land Use Plans and Regulations
- Minnesota Dam Safety and Public Waters Regulations
- Socioeconomics

Each of these topics is discussed in more detail below.

Hydrology and Hydraulics

59. If the proposed Project were constructed, approximately 118,500 total acres of land would be inundated with flood waters in a 100-year flood event. The “Benefited Area” (the area protected by the proposed Project) would experience a reduction of flood stage through the main stem of the Red River; a reduction of the extent, depth and duration of flooding across the entire Benefited Area; and a flood damage reduction on lower Wild Rice River. The Project would protect approximately 73,000 acres in the project area. Impacts to the “Unbenefited

Area” (the area that would not be protected from flooding or that would experience increased flooding as a result of the proposed Project) would vary based on location, but would generally include an increase in the extent, depth, and duration of flooding. Approximately 20,500 acres would be newly inundated. Hydrologic changes in the project area could impact a number of resources. State FEIS § 3.1.2.

60. There are no specific “Hydrology” mitigation measures. For areas inundated by the proposed Project, proposed mitigation is resource specific and discussed under multiple headings below. Proposed and recommended mitigation and monitoring by resource can be found in the State FEIS § 3.2.3 and Ch. 6, Tables 6.1 through 6.19. The State FEIS recommends Red River hydrology and hydraulic monitoring from United States Geological Service gages as part of the Geomorphology Monitoring Plan. State FEIS Table 6.1.

FEMA Regulations and the CLOMR Process

61. As discussed in the State FEIS, the Project would change the current geographic extent of the FEMA regulated 100-year flood event. State FEIS § 3.2.2. The areal extent of the 100-year flood inundation in the staging area would be mapped as floodway. Any additional flood inundation resulting from Project operation beyond the staging area but within the FEMA revision reach would be mapped as floodplain. *Id.* The State FEIS also includes a discussion of FEMA regulations and CLOMR requirements. *Id.*
62. Executive Order 11988 (E.O. 11988) requires federal agencies to consider the impacts that federal agency activities may have on floodplains. State FEIS § 1.5.1.3. E.O. 11988 applies to federal activities as well as federally-assisted or regulated activities. Each federal agency is responsible for developing its own regulations to implement E.O. 11988. The USACE has determined that the proposed Project is in compliance with E.O. 11988 and that all decision-making process requirements have been met. *FFREIS* Ch. 3. The State FEIS did not make an independent determination of the Project’s compliance with E.O. 11988.
63. April 2015 FEMA/USACE Coordination Plan provides that mitigation should cover all impacted, insurable structures within the FEMA revision reach (i.e., where the proposed Project would alter the Red River profile flood elevation by more than 0.5 feet). State FEIS § 3.2.3. The agreed-upon mitigation methods would be consistent with mitigation methods specified by the NFIP for individual structures based on the depth of flooding at each structure. Section 3.16 of the State FEIS outlines the proposed mitigation options available for structures and lands not included in the FEMA/USACE Coordination Plan. Section 3.16 also includes a discussion on structure and property mitigation, including agricultural properties and farmsteads, as well as Minnesota state law considerations for insurable structure impacts and mitigation. *See also* State FEIS Ch. 6 and App. O. Projects that increase flood stages in an area require a CLOMR, which must be issued from FEMA. CLOMR applications must receive a state approval from DNR asserting the application adheres to state rules and statutes. If the CLOMR application does not receive this DNR approval, FEMA will not issue a CLOMR.

Stream Stability

64. The proposed Project, if constructed and put into operation, will alter the natural flow of water through the floodway. The proposed Project would also alter flood flow frequency and velocity; modify the existing floodway and floodplain; and result in channel abandonment and aqueduct channel/substrate alteration effects. State FEIS § 3.3.2. These changes in hydrology would alter

the geomorphology, including stability, of the streams and rivers in this segment of the Red River Basin.

65. Mitigation, monitoring and adaptive management would be necessary and is proposed to track before- and after-Project changes to stream geomorphology within the Red River Basin, both upstream and downstream of the proposed Project. State FEIS § 3.3.3. Proposed mitigation includes monitoring and adaptive management to track before- and after-Project changes and adjust management of the Project through geomorphology assessments. *Id.* The State FEIS recommends additional mitigation and monitoring that could be used for stream stability impacts. *Id.* at Table 6.3 and App. B.

Wetlands

66. Construction and operation of the proposed Project would directly impact sixty-two (62) acres of floodplain forest and 1,750 acres of non-forested wetland. State FEIS § 3.4.2. Potential impacts to wetlands in the unprotected Project inundation area (i.e., the flooded areas) from sedimentation and subsequent function loss are expected. Specific wetlands and the degree of impact due to individual or cumulative flood events have not been quantified.
67. A wetland mitigation plan will be developed and used by federal and state agencies during the federal and state permitting/approval processes. State FEIS § 3.4.3. This plan will be used to assess the proposed Project's wetland impacts and determine appropriate replacement requirements for those impacts. *Id.* The USACE proposed to approach wetland mitigation through either habitat-based or wetland function mitigation. The USACE plans to use adaptive management to mitigate and monitor wetland impacts. *Id.* Mitigation measures include the diversion channel conceptual wetland mitigation plan. *Id.* The Project Geomorphology Monitoring plan also includes specific recommendations for wetland monitoring measures and protocols. *Id.* at App. B. Wetland mitigation is not proposed for potential indirect wetland impacts resulting from sedimentation in the staging area or in the inundated areas, but the State FEIS recommends that these areas be monitored to identify and assess potential wetland impacts within these areas. *Id.* Tables 6.4 through 6.7 and App. B.

Cold Weather Impacts on Aqueduct Function and Biotics

68. The EIS identified potential cold weather impacts to fish passage and biological connectivity as well as habitat. State FEIS § 3.5.2.
69. The State FEIS describes the fish, macroinvertebrate, and physical habitat monitoring that would apply should the proposed Project be constructed. State FEIS § 3.8.3. Proposed engineering plans for the proposed Project include heating components to reduce freezing or ice buildup detrimental to aquatic species. Additional monitoring, outlined in the State FEIS, includes monitoring surface ice in the heated and unheated portions of the aqueduct, a comparative analysis of ice buildup in the aqueduct and on the Maple and Sheyenne Rivers, and monitoring for comparison to historic data. State FEIS Table 6.8.

Cover Types

70. The State FEIS identifies the types of land that would be impacted by construction of the proposed Project. State FEIS § 3.6.2. These lands are primarily croplands and wetlands. *Id.* See *Supra* at ¶ 66.

71. Impacts would be mitigated by compensation to landowners for direct cropland impacts, such as land acquisition for Project construction. State FEIS § 3.6.3. Owners of croplands that are purchased for the Project would be compensated at fair market value. See State FEIS App. O. Mitigation for direct and indirect impacts to forested and non-forested wetlands would be incidental to wetlands. See *Supra* at ¶ 67.

Potential Environmental Hazards

72. As discussed in the State FEIS, construction or operation of the proposed Project may cause direct impacts to land with Recognized Environmental Conditions (RECs). There is the potential that properties with RECs may be inundated with floodwaters should the proposed Project become operational. State FEIS § 3.7.2.
73. Should the proposed Project advance to construction, the USACE would perform Phase I and/or Phase II Environmental Site Assessments (ESAs) and, if necessary, remediate/mitigate impacts to properties containing RECs. State FEIS § 3.7.3. Mitigation for structures that would be impacted by floodwater inundation should the Project become operational would be determined on a case-by-case basis. The State FEIS contains a discussion of proposed structure mitigation. State FEIS §§ 3.2.3 and 3.16.3. Additionally, Minn. R. 7035.0805, subp. 3 (2015), requires that a building survey be completed for all buildings that will be renovated or demolished as a result of the proposed Project construction or operation to identify potential asbestos containing materials, lead based paint, and any regulated/hazardous materials that require special handling or disposal prior to demolition or relocation of structures. Regulated solid wastes generated during Project construction must be managed and disposed of in accordance with local, state, and federal laws by a licensed hazardous waste contractor.

Fish Passage and Biological Connectivity

74. The State FEIS identified a number of fish passage and biological connectivity impacts associated with the proposed Project. State FEIS § 3.8.2. As outlined in the State FEIS, these impacts would be addressed through mitigation and monitoring. State FEIS § 3.8.3. Potential impacts and corresponding mitigation or monitoring are summarized below:
- Rush and Lower Rush Rivers: Project construction would result in channel abandonment of 2.7 miles of the Lower Rush River and 2.3 miles of the Rush River.
 - To mimic natural stream flow, a sinuous, low-flow channel would be constructed from the Maple River downstream to the outlet of the diversion channel into the Red River. The State FEIS recommends that, once constructed, the ecological function of the proposed low-flow channel be monitored to determine effectiveness. Proper timing of Project construction would need to be considered in order to minimize or avoid further potential impacts to the fish community.
 - Fish Connectivity: The proposed Project would result in the loss of fish connectivity between the Red River and Wild Rice River during operation of the Project control structure.
 - Proposed mitigation includes construction of the Drayton Dam Fish Passage which includes installation of a new rock-ramp spillway and removal of portions of the existing dam on the Red River to facilitate fish movement. The Wild Rice River dam is also slated for removal to facilitate fish movement. The State FEIS

recommends considering additional ways to reduce the frequency of Project operation to reduce the frequency of fish passage obstruction. This could be accomplished by, for example, constructing more in-town levees (or other flood reduction project(s)) that would permit flows through town to be greater than 17,000 cubic feet per section (cfs).

- Biological Connectivity: The proposed Project would result in the loss of biological connectivity in the Project area.
 - Monitoring for biological connectivity is proposed to occur following Project construction at predefined locations. Monitoring techniques would be determined following Project construction but would generally include evaluation of hydraulic conditions and biological sampling. The State FEIS recommends that fisheries impact monitoring should be evaluated on a broader scale, as a barrier on the main stem can impede fish connectivity and have impacts on upstream and downstream fish reproduction. State FEIS Table 6.11 and App. B. The monitoring plan sampling techniques need to take into account large river species. Additionally, diversion channel and control structure designs should be reviewed by the Adaptive Management and Monitoring Plan Team (AMMPT) and the Aquatic Biological Monitoring Team (ABMT) to ensure that they are designed to minimize the potential for impacts on fish passage.
- Aquatic Biota: The proposed Project would impact aquatic biota and potential habitat in the project area.
 - Monitoring for impacts to connectivity to aquatic organisms is proposed to occur following Project construction and would likely include measurements both during Project operation as well as high flow conditions when the Project is not in operation for comparison. Specific detailed metrics, including sampling frequency and timing, would be developed by a team of experts during Project construction and would be modified as needed upon Project operation based off of findings.

State FEIS Table 6.11.

- Aquatic Habitat: Project construction would directly impact the following aquatic habitat: 11 acres of the Maple River, 8-9 acres of the Sheyenne River, 12 acres of the Wild Rice River, and 14 acres of the Red River.
 - Proposed mitigation would include stream restoration. Aquatic habitat within constructed channels would be measured and compared against pre-construction conditions to determine if additional aquatic habitat mitigation is necessary. The State FEIS recommends managing construction to avoid impacts during sensitive periods and implementing large stream restorations on rivers outside the project area but within the Red River Basin to mitigate aquatic habitat impacts. State FEIS Table 6.11. Additionally, the State FEIS recommends requiring the Project proposer to provide financial assurance to ensure that funding is available to implement the necessary mitigation or restoration requirements. *Id.*
- Fish Stranding: The proposed Project could result in fish stranding in the diversion channel and the staging area after Project operation.
 - A visual assessment to locate and evaluate stranded fish post Project operation would be completed by the non-Federal sponsors. The State FEIS proposes

Project design changes including the addition of diversion inlet structure gates to ensure that water level drawdowns in the diversion channel and the staging area occur slowly so that fish can remain in the water and do not become stranded.

Wildlife and Wildlife Habitat

75. The Project, if constructed, would directly impact 62 acres of floodplain forest wildlife habitat. State FEIS § 3.9.2. Project construction would also directly impact aquatic habitat, including 11 acres of the Maple River, 8-9 acres of the Sheyenne River, 12 acres of the Wild Rice River, and 14 acres of the Red River. *Id.* The Project, if constructed, would have temporary and/or permanent adverse impacts on wildlife (e.g., birds, fish and other resident terrestrial species) and wildlife habitat (e.g., floodplain forest corridors, wetlands and trees). *Supra* at ¶¶ 66 and 74.
76. Proposed and recommended floodplain forest mitigation would be incidental to wetland replacement, as described in ¶ 67. The proposed and recommended aquatic habitat mitigation is the same as that recommended for Fish Passage and Biological Connectivity. *See Supra* at ¶ 74.

State-Listed Species and Special Status Species

77. The proposed Project could interrupt bird nesting and rearing periods, cause mussel mortality, and interrupt lake sturgeon migration and spawning. State FEIS § 3.10.2.
78. Bald eagle and raptor nest monitoring and fish surveys would be conducted before, during and post Project construction. State FEIS §§ 3.10.3 and 3.8.3. To the extent practicable, vegetation clearing activities would be conducted in a manner to avoid affecting nesting and rearing birds. The State FEIS also recommends that additional mussel surveys be conducted in the Project footprint and that additional monitoring and mitigation measures be undertaken to mitigate the Projects fish impacts. State FEIS Table 6.13 and Table 6.11.

Invasive Species

79. The proposed Project could encourage the establishment of invasive species populations at mitigation and construction sites as well encourage spread and establishment of populations in the inundated areas. State FEIS § 3.11.2.
80. An invasive species management plan would be prepared. State FEIS § 3.11.2. Wetland mitigation sites would be managed for invasive species. Areas disturbed by Project construction would be seeded and monitored. The non-Federal sponsors would be responsible for noxious weed control throughout the Project life as specified in the Operations, Maintenance, Repair, Rehabilitation, and Replacement (OMRR&R) Manual for the Project. Monitoring would be completed on an annual basis in accordance with the OMRR&R and adaptive management plan. Additionally, the State FEIS recommends mitigation-site specific controls to control invasive species and the development of a zebra mussel control plan. State FEIS Table 6.14.

Cultural Resources

81. The proposed Project would cause flood impacts to eligible or listed properties and cemeteries on the National Register of Historic Places (NRHP), cemeteries not eligible for listing on the NRHP, and cemeteries outside the staging area. State FEIS § 3.12.2.
82. Because the Project would be undertaken by the federal government and local governmental units, the USACE and Diversion Authority would be required to comply with the requirements of Section 106 of the National Historic Preservation Act prior to impacting any property on or eligible for listing on the NRHP. The USACE and Diversion Authority would comply with Section 106 through consultations and Programmatic Agreements with North Dakota and Minnesota State Historic Preservations Officers (SHPO). The scope of permissible impacts on historic properties would be more precisely delineated through Section 106 consultations. The federal mitigation plan consists of requiring the non-Federal sponsor to acquire flowage easements within the staging area. The USACE completed a 2015 Draft Cemetery Mitigation Plan that includes potential mitigation measures but none of these measures have been proposed at this time. State FEIS App. H. The State FEIS recommends that the USACE and Diversion Authority adopt SHPO recommendations for the treatment of historic properties. State FEIS Table 6.15. The State FEIS also describes additional recommended mitigation measures for cemeteries. State FEIS App. O.

Infrastructure and Public Services

83. The proposed Project would impact roads, bridges, culverts, ditches, railroads and utilities, as well as change traffic patterns. State FEIS § 3.13.2.
84. The construction of road and rail bridges over the diversion channel would be completed during Project construction to mitigate transportation connectivity impacts. State FEIS § 3.13.3. Interstate Highway 29 and North Dakota State Highway 75 would be raised in the staging area to prevent inundation during Project operation. Small portions of U.S. Highway 81, ND County Road 18, and MN County Road 2 would be raised to maintain access to Oxbow-Hickson-Bakke (OHB) and Comstock. All other roads in the staging area would be allowed to flood under Project operation. Railroads would be raised as needed and utilities that cannot withstand occasional flooding in the inundation area would be abandoned, modified, or relocated. The State FEIS recommends coordinating with the U.S. Postal Service, developing a plan for clean-up and repair, conducting additional studies regarding railroads and utilities, and considering impacts to resources during permitting. State FEIS Table 6.16.

Land Use Plans and Regulations

85. The proposed Project would increase flooding in in the Unbenefited Area. State FEIS § 3.14.2. Increased flooding within the Unbenefited Area has the potential to restrict development and/or land use options in the Unbenefited Areas. Permits and other governmental approvals may apply to the Project, and are discussed in the State FEIS §§ 1.5 and 3.14.3. Additionally, changes to regulatory floodways, Base Flood Elevations or extents of Special Flood Hazard Areas caused by the construction and operation of the Project would require updates to the existing Flood Insurance Study Map. The NFIP participating communities with FIRMs affected by the Project would require Flood Insurance Rate Map revisions pursuant to the FEMA Letter of Map Revision (LOMR) process and in accordance with the Final FEMA/USACE Coordination Plan. State FEIS §§ 1.5 and 3.2 and App. F.

86. Minnesota state rule would not allow development to occur within the designated floodway (i.e., the inundated portions of the staging area on the Minnesota side) Minn. R. 6120.5800, subp. 3B (2015). Existing structures within the newly created and designated floodplain would require flood insurance or would need to be mitigated. State FEIS Table 6.17. Restrictions on future development within the floodplain would apply per part 6120.5800.
87. In order to begin construction in Minnesota (including construction on the Red River), the proposed Project needs both a DNR Work in Public Waters Permit and a Dam Safety Permit. Minn. Stat. 103G.245 and Minn. R. 6115.0220. A project requiring a Dam Safety Permit must be consistent with applicable floodplain and shoreland standards and ordinances as well as with local water related land management plans. Minn. R. 6115.0220, subp. 5 (2015). The State FEIS provides information on the requirements of applicable land management plans and related standards. State FEIS § 3.14.2 and Executive Summary at ES-64. Specifically, the State FEIS notes that:
- The Wilkin County Zoning Ordinance requires a zoning amendment for any water impoundment greater than 640 acres in size. State FEIS § 3.14.2.1.
 - The Project would provide flood risk reduction for a large, currently-undeveloped area south of City of Fargo. State FEIS § 3.14.2.1.3. Protection of this area could encourage development within this area. Unplanned development (i.e., development not consistent with the City's current development plan) in this area could very well be incompatible with Fargo's future growth plans. The City indicated that each proposed new development would be individually evaluated against City goals and ordinances.
 - The Project would alter hydrologic conditions by regulating the flow in the Benefited Area during 10-year flood events and greater. This alteration could have negative impacts on existing drainage ditch systems. State FEIS § 3.14.2.4. The Buffalo-Red River Watershed District has regulatory authority over the Comstock levee and any proposed measures to mitigate impacts to drainage systems.
88. The USACE has indicated regulations would be followed as required by federal law, and they would continue to work with state and local entities for Project implementation. State FEIS § 3.14.3. Should the Project be constructed, FEMA requires that the areal extent of flood inundation within the staging area would be mapped as FEMA floodway; other inundated areas within the revision reach and outside the staging area would be mapped as FEMA floodplain. State FEIS App. F. Applicable FEMA development restrictions within both the floodway and the floodplain are discussed in greater detail in §§ 3.2.2 and 3.2.3 of the State FEIS. The State FEIS also recommends that communities downstream of the dam in the benefited area (i.e., the hydrologic shadow of the dam) adopt enhanced land use controls including "no build zones." State FEIS Table 6.17.

Minnesota Dam Safety and Public Waters Regulations and Permitting

89. The proposed Project requires the construction of a Class 1 dam on the Red River and, pursuant to Minn. Stat. § 103G.245, requires both Dam Safety and Work in Public Waters permits from DNR. State FEIS § 3.15.2.
90. The specific requirements for a Dam Safety Permit are found in Minn. R. 6115.0300 *et. seq.* Minnesota Rule 6115.0410 sets forth the specific requirements and standards, including applicable engineering studies and potential mitigation, which must be analyzed before the DNR can make a decision on a Dam Safety Permit application. The specific requirements for a Work in Public Waters Permit are found in Minn. R. 6115.0150—6115.0280 (2015) that sets forth specific

requirements and standards which must be analyzed before the DNR can make a decision on a Work in Public Waters permit application. Both the DNR Dam Safety and Work in Public Waters permits, if granted, would include any necessary design, mitigation, and operation conditions for the Project. The State FEIS acknowledges that the DNR has received a permit application and lists those permit-related studies or information included with the application. The State FEIS is not, however, a decision-making document and any decision on whether to issue permits for the Project will be addressed in the permit decision-making process.

91. The applicable permit decision-making process for the Dam Safety and Work in Public Waters permits is found in Minn. R. 6115.0150 – 6115.0520, which provides for the orderly and consistent review of permit applications in light of the state's paramount interest in conserving and using the water resources of the state to further public health and welfare. Additionally, the permit application will be evaluated in a manner consistent with the goals and objectives of applicable federal, state, and local environmental quality programs and policies, such as Minnesota's shoreland management and floodplain management programs and policies.

Socioeconomics

92. The State FEIS contains extensive discussions of the proposed Project's potential socioeconomic impacts. See State FEIS §§ 3.16.2, 3.16.3, Table 6.19 and App. L. Key impacts and corresponding mitigation or monitoring measures include:

- Structures: Project operation would result in flood inundation of residential and nonresidential structures in the Unbenefited Areas, including the staging area.
 - The April 2015 FEMA/USACE Coordination Plan provides that all impacted insurable structures within the FEMA map revision reach would be mitigated through agreed methods that are consistent with mitigation methods specified by the NFIP for individual structures based on depth of flooding at each structure. State FEIS §§ 3.2.3, 3.16.3, and App. F. Section 3.16 of the State FEIS also outlines the proposed mitigation options available for structures and lands not included in the FEMA/USACE Coordination Plan. Additional recommended mitigation measures are outlined in Chapter 6 and Appendix O of the State FEIS. The State FEIS recommends requiring the Diversion Authority to provide financial assurance to ensure that funding is available to implement the necessary mitigation. State FEIS Table 6.19.
- Agriculture: Project operation would result in flood inundation of extensive agricultural acreage, including organic farms.
 - As outlined in the FEMA/USACE Coordination Plan, the areal extent of flood inundation within the staging area would be mapped as FEMA floodway; other inundated areas outside the staging area would be mapped as FEMA floodplain. State FEIS App. F. The acquisition of flowage easements is required for operation of the Project in these areas. Inundated land outside of the staging area and within the FEMA revision reach would be mapped as FEMA floodplain. USACE has proposed to perform an analysis to determine if the flooding amounts to a physical invasion of property and constitutes a taking requiring acquisition of a flowage easement. State FEIS App. O. The State FEIS recommends additional mitigation measures including: providing supplemental crop insurance to farmers; debris clean-up by the Project operator after each flooding occurrence requiring use of the Project; the consideration of future

flood impacts in the appraisal process; compensation drainage ditch authorities for Project-related damage; providing financial assurances for unforeseen impacts; and requiring the non-Federal sponsors to acquire impacted land. State FEIS Table 6.19 and App. O. The State FEIS also recommends that the non-Federal sponsors approach organic farmers to discuss early buy-out options, determine potential impacts to organic farming certification prior to flowage easement issuance, and consider the “Loss of Going Concern” for organic operations impacted by flooding.

- Century Farms: Project construction and/or operation would result in impacts to Century Farms.
 - The USACE and Diversion Authority are required to comply with all applicable Section 106 requirements for all NHRPs within the project area including consultation with the SHPOs. *See Supra* ¶ 82 through 83.
 - The State FEIS recommends that ongoing costs for ring levees (i.e., operation, maintenance, and recertification) be included as mitigation. State FEIS Table 6.19. Accredited levees must be under government jurisdiction through either local, state, federal ownership and/or regulation. All ring levees must meet FEMA accreditation requirements. Article I § 13 of the Minnesota Constitution expressly provides: *“Private property shall not be taken, destroyed or damaged for public use without just compensation therefor, first paid or secured.”* State FEIS App. O. Mitigation would need to be completed before the LOMR is issued or flood insurance is required. Mitigation could include landscaping, structure relocation, flood proofing, or elevating structures.
- Businesses: Project construction and/or operation would impact businesses in the Unbenefited Area.
 - Based on the level of impact, mitigation options include buy-outs, relocations, flowage easements, and non-structural measures. Mitigation is proposed for landowners only; no mitigation is currently proposed for lessees. The State FEIS recommends that damages also be paid for “Loss of Going Concern” for Minnesota businesses located within the project area including the staging area. State FEIS App. O. The State FEIS also recommends requiring the Diversion Authority to provide financial assurance to ensure that funding is available to implement the necessary mitigation. Recommended mitigation specific to individual tenants includes relocation assistance, advance notification of Project operation, and supplemental crop insurance.
- Public Services: Project construction and/or operation would impact infrastructure and public services and utilities.
 - Road and rail bridges would be constructed over the diversion channel prior to operation to mitigate transportation connectivity impacts. Interstate Highway 29 and Minnesota Highway 75 would be raised in the staging area to prevent inundation during Project operation. Small portions of U.S. Highway 81, ND County Road 18, and MN County Road 2 would be raised to maintain access to OHB and Comstock. All other roads in the staging area would be allowed to flood under Project operation. Railroads would be raised as needed and utilities that cannot withstand occasional flooding in the inundation area would be abandoned, modified, or relocated. State FEIS § 3.13.3. The State FEIS

recommends coordinating with the U.S. Postal Service, developing a plan for clean-up and repair, conducting additional railroad and utilities studies, and considering impacts to infrastructure during permitting. The State FEIS also recommends requiring the Diversion Authority to provide financial assurance to ensure that funding is available to implement the necessary mitigation. State FEIS Table 6.19.

- Access to health care and emergency services: Project operation would impact the Unbenefited Area's access to health care and emergency services.
 - OHB and Comstock ring levee residents would have at least one access road maintained during Project operation. Detour routes would also be used. The State FEIS recommends that Local Emergency Flood Plans be updated, particularly in areas with new inundation. State FEIS Table 6.19.
- Social/Community: The proposed Project would have a number of social impacts, such as relocation impacts on individuals, stress, and the loss of community ties.
 - There is no proposed or recommended mitigation for these impacts.
- Well, septic and groundwater: Project construction and/or operation would impact well, septic and groundwater.
 - Proposed mitigation includes removal or abandonment of wells and septic systems within the Project footprint including those that are associated with structures that are relocated/buy-outs. Well monitoring would be conducted near the Project inundation area and well modifications would be made where necessary to prevent contamination to drinking water. Consistent with flood precaution guidelines established by the Minnesota Department of Health, the State FEIS recommends including the cost of floodproofing, abandonment, or relocation of septic systems due to new inundation. State FEIS Table 6.19. Applicable requirements for management and abandonment of wells in Minnesota are set forth in Minn. R. Ch. 4725.
- Agricultural Business: Project construction and/or operation would result in agricultural impacts, including equipment mobilization impacts, bisected farm fields, changes to soil chemistry, sedimentation/erosion, transportation of plant pathogens, invasive species and noxious weed spread, and planting delays.
 - There is no proposed mitigation for these impacts. The State FEIS recommends following the measures mitigation outlined in the North Dakota State University Initial Ag Impact Study, providing supplemental crop insurance, and considering the of type of agriculture (traditional vs. organic) in assessing mitigation damages. The State FEIS also recommends requiring the Diversion Authority to provide financial assurance to ensure that funding is available to implement the necessary mitigation.
- Uninsurable structures: Project operation would result in impacts to uninsurable farm structures and grain/livestock food storage.
 - Uninsurable farm structures would be mitigated, but specific measures have not yet been determined. Livestock operations would not be allowed in the staging area. Relocations or other mitigation for grain food storage has not yet been determined. The State FEIS recommends requiring the Diversion Authority to provide financial assurance to ensure that funding is available to implement the necessary mitigation. State FEIS Table 6.19.

- Cemeteries: Project operation and/or construction would result in cemetery impacts.
 - The federal mitigation plan consists of requiring the non-Federal sponsor to acquire flowage easements within the staging area. The USACE completed a 2015 Draft Cemetery Mitigation Plan that includes potential mitigation measures but none of these measures have been proposed at this time. State FEIS App. H. The State FEIS recommends that the USACE and Diversion Authority adopt SHPO recommendations. State FEIS Appendix O describes additional mitigation measures for cemeteries.
- Lands: The State FEIS found that impacted land would include primarily cropland and wetland both in the staging area and within the construction footprint.
 - These impacts would be mitigated by compensation to landowners for direct cropland impacts, such as land acquisition for Project construction. Owners of croplands that are purchased for the Project would be compensated at fair market value. State FEIS Appendix O describes additional mitigation measures and considerations for these properties.
- Ring levees: The Project would result in the need for community ring levees around OHB and Comstock.
 - The Comstock ring levee would be designed in collaboration with local officials and would allow for future development. All residents within Comstock would be protected by the ring levee. The OHB ring levee would require the relocation of 42 homes to different sites within the OHB levee. An additional 60 residential lots would be added within the ring levee for other displaced residents within the unprotected area. The Diversion Authority would compensate the City of Oxbow and the Kindred School District for loss of tax base for a period of up to four years caused by the temporary loss of the 42 homes.

Cumulative Potential Effects

93. In compliance with Minn. R. 4410.1200 E and 4410.2300 H (2015) and as described in §4.1 of the State FEIS, potentially affected resource categories were identified, the environmentally relevant area was defined for each resource category, reasonably foreseeable projects were identified within the environmentally relevant area, and a cumulative potential effects screening analysis was conducted. Cumulative impacts identified in the FFREIS were reevaluated applying applicable criteria. State FEIS Table 4.1.
94. DNR identified five reasonably foreseeable future projects that would result in relatively minor contributions to environmental effects when viewed in conjunction with the proposed Project. Some of these effects were positive contributions and some were negative. None of these contributions appreciably changed the assessment of potential environmental or social effects of the Project in the environmental review process.

Permits

95. All known permits, approvals, and Federal regulatory programs and laws related to and potentially required for the Project were identified. State FEIS § 1.5 and Table 1.1.
96. As noted in ¶ 21, no permits were identified for which permitting information would be developed concurrently with the preparation of the EIS. No permits were identified for which a record of decision would be required. Minn. R. 4410.2100, subp. 6D. All permit applications,

however, will be processed separately from the environmental review process and the records for the required permit decisions will be compiled as the permit applications are processed. The State FEIS acknowledges that the DNR has received a permit application and lists those permit-related studies or information included with the application. State FEIS § 3.15.

Determination of Adequacy

97. Upon conclusion of the State FEIS comment period, the DNR as RGU shall determine the adequacy of the State FEIS in accordance with the requirements of Minn. R. 4410.2800, subp. 4. (2015).
98. To find the State FEIS adequate the DNR must find that the State FEIS:
- Addresses the potentially significant issues and alternatives raised in scoping;
 - Provides responses to the substantive comments received during the Draft EIS comment period concerning issues raised in scoping; and
 - Was prepared in compliance with the procedures of the act and part 4410.0200 to 4410.6500.
- Minn. R. 4410.2800, subp. 4 (2015).
99. The DNR finds that the State FEIS “addresses the potentially significant issues and alternatives raised in scoping” as required by Minn. R. 4410.2800, subp.4A (2015).
- Potentially-significant issues are documented in *Supra* ¶¶ 58 through 93.
 - Alternatives raised in scoping are documented in ¶ 26.
100. The DNR finds that the State FEIS “provides responses to substantive comments received during the Draft EIS comment period concerning issues raised in scoping as required by Minn. R. 4410.2800, subp. 4B.
- Responses to comments made on the Draft EIS are documented in ¶ 29.
101. The DNR finds that the environmental review process used to prepare the State FEIS complied with the applicable procedural requirements of the Minnesota Environmental Policy Act as required by Minn. R. 4410.2800, subp.4C (2015). Specifically the DNR finds:
- Projects Requiring an EIS – Minn. R. 4410.2000 (2015). DNR’s compliance with the requirements of Minn. R. 4410.2000 (2015) is documented in ¶¶ 8 through 9.
 - EIS Scoping Process – Minn. R. 4410.2100 (2015). DNR’s compliance with the requirements of Minn. R. 4410.2100 (2015) is documented in ¶¶ 12 through 13, 15 through 16, 20 through 24, and 96.

- Content of EIS – Minn. R. 4410.2300 (2015). DNR’s compliance with the requirements of Minn. R. 4410.2300 (2015) is documented in ¶¶ 30, 32 through 34, 41, 44 through 45, 48, 50, 52 through 53, 57, and 93.
- Incorporation by Reference in EIS – Minn. R. 4410.2400 (2015). DNR’s compliance with the requirements of Minn. R. 4410.2400 (2015) is documented in ¶ 7.
- Draft EIS – Minn. R. 4410.2600 (2015). DNR’s compliance with the requirements of Minn. R. 4410.2600 (2015) is documented in ¶¶ 25, and 27 through 29.
- Final EIS – Minn. R. 4410.2700 (2015). DNR’s compliance with the requirements of Minn. R. 4410.2700 (2015) is documented in ¶¶ 35 through 36.
- Determination of Adequacy – Minn. R. 4410.2800 (2015). DNR’s compliance with the requirements of Minn. R. 4410.2800 (2015) is documented in ¶¶ 36, 40, and 97 through 101.

II. CONCLUSIONS

- A. The DNR is charged with determining the adequacy of the State FEIS for the Fargo-Moorhead Flood Risk Management Project. The State FEIS meets the content requirements of Minn. R. 4410.2300 (2015).
- B. The DNR prepared the EIS in compliance with the procedures set forth in Minn. Stat. § 116D.04 (2014) and Minn. R. 4410.0200 to 4410.6500 (2015).
- C. The public has been afforded opportunities to review and comment on the scope of the EIS, the content of the State DEIS, and the adequacy of the State FEIS in accordance with all applicable provisions of MEPA and Minn. R. Ch. 4410. The State FEIS includes responses to all substantive comments received during the public comment period on the State DEIS.
- D. The information presented in the State FEIS adequately addresses the issues identified in the FSDD.
 - The proposed action is described in sufficient detail.
 - The State FEIS adequately analyzes significant environmental impacts.
 - The State FEIS adequately presents alternatives to the proposed action and their impacts.
 - The State FEIS adequately presents methods by which adverse environmental impacts can be mitigated.
 - The State FEIS adequately presents the economic, employment, and sociological effects that cannot be avoided should the proposed action or an alternative be implemented.

- E. As set forth in ¶¶ 97 to 101, the State FEIS meets the criteria set forth in Minn. R. 4410.2800, subp. 4 (2015), which require that a FEIS:
- addresses the potentially significant issues and alternatives raised in scoping so that all significant issues for which information can be reasonably obtained have been analyzed in conformance with part 4410.2300 (2015), items G and H;
 - provides responses to the substantive comments received during the draft EIS review concerning issues raised in the scoping process; and
 - was prepared in compliance with the procedures of the Minnesota Environmental Policy Act and EQB Rules, parts 4410.0200 to 4410.6500.
- F. Findings that might properly be termed Conclusions and any Conclusions that might properly be termed Findings are hereby adopted as such.

III. ORDER

Based upon the Findings of Fact and Conclusions contained herein and the entire record of the proceedings:

The Minnesota Department of Natural Resources hereby determines that the Final Environmental Impact Statement for the proposed Fargo-Moorhead Flood Risk Management Project, in Clay and Wilkin Counties, Minnesota, and Cass and Richland Counties, North Dakota, is adequate.

Approved and adopted this 29th day of June 2016.

STATE OF MINNESOTA
DEPARTMENT OF NATURAL RESOURCES



Barb Naramore
Assistant Commissioner

Fargo-Moorhead Flood Risk Management Project

Record of Decision

Attachment 1

Responses to Public Comments on the
Final Environmental Impact Statement (Final EIS)

Final EIS Public Comment Period
May 16 – May 31, 2016

Introduction

The Final Environmental Impact Statement (Final EIS) was released for public review on May 16, 2016. The public comment period closed on May 31, 2016 at 4:30 p.m.

Written comments were received on the Final EIS from a total of 20 different state and local agencies, non-governmental groups, and citizens. In the list below, individual commenters have been assigned unique comment identification (Comment ID) that is arranged alphabetically by organization or last name of commenter. All timely substantive comments have been considered in accordance with Minnesota Rules, part 4410.2800, subpart 2, and clarification of subject matter presented in the Final EIS has been provided where needed.

The Minnesota Department of Natural Resources received two comments outside of the comment period. Comments received outside of the public comment period are not directly addressed (Minnesota Rules, part 4410.2800, subpart 2), but topics included in this document may address those comments. Late comments are identified by Comment ID and listed at the end of this document.

The following table includes substantive comments received during the public comment period on the Final EIS. Comments have been summarized. Upon request, the Project Proposer and all permitting authorities will receive all comments for consideration.

Comment ID List

- Diversion Authority; Berndt, Keith by Darrell Vanyo: 1a
- Herwig, Mark: 2a
- Israelson, Colleen: 3a
- Larson, Marcus: 4a-4e
- Lundquist, Ronald: 5a-5e
- MNDAK Upstream Coalition; Aaland, Cash: 6a
- Minnesota Pollution Control Agency; Kromar, Karen: 7a
- North Dakota State Historic Preservation Office; Quinnell, Susan: 8a
- North Dakota State Water Commission; Sando, Todd: 9a
- Nelson, Don: 10a-10g
- Nelson, Lane: 11a
- Nipstad, Sandra: 12a
- O'Neil, Kevin: 13a
- Richland-Wilkin JPA; Von Korff, Gerald: 14a-14e
- Rogne, Trana: 15a-15p
- Rust, Perry: 16a-16b
- Storvick, Sylvia: 17a
- Tracey, Timothy: 18a-18b
- LATE COMMENTER: Brude, Jenny: 19a
- LATE COMMENTER: North Dakota Department of Transportation; Fode, Robert: 20a

Comment ID	Comment Summary	Comment Response
1a	The Commenter submits differing interpretations on the topics of flood risk transfer and legal/land use considerations.	Comments provided do not comment on or indicate the inadequacy of the Final EIS. Comments will be included in the record for use as needed by permitting authorities.
2a	The Commenter provides an opinion on the construction of dams versus more natural flood control options.	Comments provided do not comment on or indicate the inadequacy of the Final EIS. Comments will be included in the record for use as needed by permitting authorities.
3a	The Commenter appreciates MNDNR efforts, opposes the Project and has questions related to regulatory requirements of the OHB Ring Levee and how it relates to floodplain development and allowable land uses.	It is unclear what dike and golf course the commenter questions, but assuming the commenter is referring to the OHB Ring Levee, this comment will respond to that. The OHB Levee was considered a Project component requiring analysis in the EIS, but regulatory requirements for the OHB Levee were not specifically included in the FSDD. The Final EIS discusses the construction plans and infrastructure requirements associated with building this levee. Comments regarding the implications of the OHB levee or requesting changes to the OHB design were responded to in many headings in the Final EIS, Appendix L. This information is available for individual land use authorities to determine any allowable development or restrictions.

Comment ID	Comment Summary	Comment Response
4a	<p>Commenter believes that the response to Comment 111b (that argued that the Project will not minimize downstream impacts) does not appear to represent the true nature of downstream impacts.</p>	<p>Draft EIS comment 111b stated that the objective to minimize downstream impacts is not achieved with the Project and also included a table that compared record crest flood levels to model results. While record crest flood data provide a historical perspective, they cannot be used to judge the potential downstream impact of the Project (i.e., comparing gage data to model results is an apples to oranges comparison). That can only be done by comparing the model results for existing and Project conditions using the same hydrologic model (i.e., comparing apples to apples).</p> <p>The response to comment 111b explained that the staging area feature of the Project was added to earlier, water storage-less versions of the Project and potential Project alternatives to address downstream stage increases that hydrology models showed would occur under a diversion-only plan. Therefore, compared to earlier plans, the proposed Project limits downstream impacts. A reference was provided to view FFREIS Appendix O - Plan Formulation for a detailed discussion of study phases. The response also provided a brief description of the potential range of downstream impacts. In response to Final EIS comment 4a, the comparison results were checked and found to be accurate; the response to comment remains adequate.</p>
4b	<p>Commenter questions the analysis related to their commenter-submitted "Zero Impact Alternative" (i.e., Alternative #15 from the Alternative Rescreen Exercise) (Final EIS Appendix L Comment 111h).</p>	<p>The commenter's alternative (their "Zero Impact Alternative") was included in the Purpose & Need and Alternative Rescreen Report (Final EIS Appendix M) as Alternative #15. The methodology used to screen alternatives was described as a 5-step process (pages 4-5 of Appendix M). The third bullet under the methodology heading reads: Steps 1-3 and 5: If the answer to a question was 'no', the alternative was determined not subject to further questions. As indicated in Appendix M, Table 1, Alternative #15 received a "no" to the question posed in Step 3; therefore, it would not advance in the process, and questions #4 and #5 would not be considered. Although the commenter believes that the alternative might have substantially less adverse socioeconomic impact over the Project, the alternative was considered "not a reasonable alternative" because it was challenged by factors of time and land acquisition. In response to Final EIS comment 4b, MNDNR reviewed analysis conducted for the "Zero Impact Alternative" components and concluded that the results of the Appendix M exercise remain the same. The response to comment is adequate.</p>

Comment ID	Comment Summary	Comment Response
4c	Commenter resubmitted a late comment from the Draft EIS public comment period related to roadway and infrastructure impacts and mitigation.	Impacts on infrastructure and public services was a scoped topic in the FSDD and was addressed in EIS subsection 3.13.2. The EIS identified that the Project would impact roads, bridges, culverts, ditches, railroads and utilities, as well as change traffic patterns. The EIS discussed proposed mitigation in subsection 3.13.3, including construction of road and rail bridges over the diversion channel that would be completed to mitigate transportation connectivity impacts, raising Interstate Highway 29 and Highway 75 in the staging area to prevent inundation during Project operation, and raising small portions of Highways 81, 18, and 2 to maintain access to OHB and Comstock. All other roads in the staging area would be allowed to flood under Project operation. Railroads would be raised as needed and utilities that could not withstand occasional flooding in the inundation area would be abandoned, modified, or relocated. EIS Table 6.16 recommended additional mitigation above that which is proposed, including coordinating with the U.S. Postal Service, developing a plan for clean-up and repair, conducting additional studies regarding railroads and utilities, and considering impacts to resources during permitting. Final EIS Appendix L addressed additional concerns related to Infrastructure and Public Services and Mitigation on document pages 102-108. The information contained in the EIS adequately addressed the topic of infrastructure and public services.
4d	The Commenter resubmitted a late comment from the Draft EIS related to a specific water feature located in North Dakota that the Commenter is concerned may be connected to aquifers in Minnesota.	MNDNR did not identify the impacts to aquifers as a topic to be included in the scope of the EIS since the USACE FFREIS had covered the topic in part 4.2.1.7. However, potential effects of the Project and Project Alternatives to groundwater, including wells, was addressed in EIS Section 3.16. Similar comments received during the Draft EIS public comment period were responded to in Appendix L (Socioeconomics, Wells and Groundwater Quality, document p.197). Potential impacts to groundwater were identified as part of the Adaptive Management and Monitoring Plan, so this information will be shared with permitting authorities.

Comment ID	Comment Summary	Comment Response
4e	<p>Commenter disagrees with the response to comment 111i related to the EOEP "wet-dry cycle" hydrology.</p>	<p>The commenter references the subject of this comment as "wet-dry cycle, EOEP" and the Draft EIS comment in question was comment 111i. MNDNR reviewed Draft EIS comment 111i and the original comment letter and determined that the content of the letter and comment 111i was on the subject of dam safety and risk and loss of life concerns. Assuming that the commenter meant to type "111a" (a comment submitted by the commenter related to the subject of hydrology and hydraulics and the EOEP), this response will address the response to comment 111a since it more closely matches the content of the Final EIS comment letter. MNDNR received several comments on the Draft EIS related to the credibility of the EOEP and questioning the "wet-dry cycle" hydrology. In response to these comments, MNDNR developed Final EIS Appendix N (Fargo-Moorhead EIS Hydrologic Methodology Review) to explore the most appropriate way to determine the flood discharge frequency data for the Red River at Fargo-Moorhead. In the beginning of this report, historical information (including acknowledgement of land use changes, e.g., loss of floodplain storage) is presented as a basis for the "wet-dry cycle" theory and the subsequent decision to split the gage record. The key point implied, but not explicitly stated, in Appendix N is that when sufficient stream gage data are available, those annual peak flow data are used to determine the discharge frequency data, not precipitation data. Many factors affect the severity of a flood event; precipitation being one of them. But it's not the sole criteria as, for example, a three inch rainfall over wet ground in May will likely cause much greater flooding than a three inches of rain falling over a full crop canopy during drier conditions in late August. The measured stream flow data are a reflection of how all of the factors combine each year to produce the peak flow at a stream gage. Standard engineering practice is to use the measured flow data to determine the flood discharge frequency data, not precipitation amounts. It is also unnecessary in these situations to determine "sources" of the contributing discharge. The relationship of precipitation data to modeling was provided to the commenter via response to their comment 7a (the commenter's Draft EIS submittal related to precipitation data). Appendix N highlights alternative statistical analyses that make use of the available Fargo stream gage data – all are variations on a basic methodology that's been used since 1982. The EOEP decision to split the gage record is uncommon, if not unique in MN/ND. The conclusion of Appendix N acknowledged that there was a slight difference between the EOEP and the updated Period of Record but that difference was not likely significant enough to change the design of the Project or results of the analysis in the EIS. Although the commenter may still have reservations about the EOEP hydrology, MNDNR's decision to use the EOEP is adequately described and remains. In response to Final EIS comment 4e, the topic related to the comment has been adequately addressed. Response to comment 111i was also reviewed and is considered adequate.</p>

Comment ID	Comment Summary	Comment Response
5a	Commenter questions the motive for the Project as being for development south of Fargo.	"The Project Motive" was addressed in Final EIS Appendix L, page 147, and Executive Summary "Areas of Controversy" page ES-62. MNDNR acknowledged that added flood protection in the metropolitan area would also make development opportunities more attractive south of Fargo. However, MNDNR did not receive any new information from commenters on environmental or social impacts with respect to hidden motives. As part of addressing comments on Land Use, MNDNR asked the City of Fargo about the Project Purpose and Need, to which they replied (February 5, 2016) that the Project was not conceptualized to promote floodplain development. Regardless of any proposer's motive, MNDNR regulatory authority is limited to comparing the Project with the requirements of Minnesota Rule and Statute. In response to public concern around the "project motive", one of the Areas of Controversy (required per Minnesota Rules part 4410.2300) was included in the EIS under "Floodplain Development", which describes the controversy around the Purpose and Need and Floodplain Development.
5b	The Commenter expressed concerns about past floods resulting in the spread of noxious weeds and invasive species and the likelihood of further spread of these species due to flooding associated with the project.	Terrestrial Invasive Species, including Noxious Weeds, were addressed in the Final EIS subsections 3.11.1.2 and 3.16.2.3.8 which included a discussion on agricultural impacts, soil health.
5c	Commenter is concerned about Project operation impacts that could result in siltation deposits on agricultural fields.	Subsection 3.16.2.3.8 of the Final EIS included a discussion on agricultural impacts, soil health. This subsection discussed how Project operation could result in impacts to soil health through erosion and sedimentation; the movement of nutrients and minerals that results in negative impacts to local soil conditions. Negative impacts discussed included decreased crop yields. Table 6.19 in Chapter 6 of the Final EIS includes recommendations for mitigation that could be used to address siltation if it were to occur as a result of Project operation. This comment has been addressed in the EIS.

Comment ID	Comment Summary	Comment Response
5d	Commenter is concerned that construction of a dam would not be safe considering local soil types.	Similar comments were received during the Draft EIS public comment period and were addressed in Final EIS Appendix L under Topic "Dam Safety" subtopics of "Risk Concerns" and "Risk and Loss of Life Concerns" (document pages 46 -51). Potential topics for consideration for dam safety permit information are included in EIS Section 3.15.
5e	<p>Commenter questions consideration of an alternative with four components:</p> <ol style="list-style-type: none"> 1. Buyout homes in existing floodplain; 2. Support existing diking to protect the city; 3. Restrict floodplain development; 4. Upstream storage. 	The commenter describes an alternative that includes the DSA plus three other components. During the Draft EIS comment period, many commenters submitted similar alternatives that described the DSA plus "other components". In response to the commenter-submitted alternatives, MNDNR conducted an Alternative Rescreen Exercise, which is included as Final EIS Appendix M. The alternative described by the commenter was included in Appendix M as Alternative #15. The methodology used to screen alternatives was described as a 5-step process (pages 4-5 of Appendix M). The third bullet under the methodology heading reads: Steps 1-3 and 5: If the answer to a question was 'no', the alternative was determined not subject to further questions. As indicated in Appendix M, Table 1, Alternative #15 received a "no" to the question posed in Step 3; therefore, it would not advance in the process, and questions #4 and #5 would not be considered. Alternative #15 was considered "not a reasonable alternative" because it was challenged by factors of time and land acquisition. In response to Final EIS comment 5e, DNR reviewed analysis conducted for Alternative #15 and the results remain the same.

Comment ID	Comment Summary	Comment Response
6a	EIS did not respond to comment offering alternative "Preserve Floodplain" from Charlie Anderson.	<p>Commenters submitted an alternative developed by Charlie Anderson, Professional Engineer, either in the form of an attachment to their comment letter or summarized in text. Since Charlie Anderson did not formally submit the alternative in his own unique submittal, he was not listed as a commenter on the Draft EIS. That said, although not a formal commenter, and although not directly annotated on the commenter's Draft EIS attachments, Charlie Anderson's alternative was evaluated in the EIS. The alternative described by Charlie Anderson was evaluated in the Purpose & Need and Alternative Rescreen Report, which was included as Final EIS Appendix M, Alternative #29 (NWRR + DSA + floodplain storage).</p> <p>The methodology used to screen alternatives was described as a 5-step process (pages 4-5 of Appendix M). The third bullet under the methodology heading reads: Steps 1-3 and 5: If the answer to a question was 'no', the alternative was determined not subject to further questions. As indicated in Appendix M, Table 1, Alternative #29 received a "no" to the question posed in Step 3; therefore, it would not advance in the process, and questions #4 and #5 would not be considered. Although the commenters believe that the alternative might have substantially less adverse environmental impact over the Project, the alternative was considered "not a reasonable alternative" for two reasons:</p> <p>1) It contains the DSA, which was limited by factors of time and implementability (land acquisition). Adding more components to the DSA does not necessarily make it more reasonable; in fact, it can have the opposite effect.</p> <p>2) The North of the Wild Rice River (NWRR) dam location component was also not a reasonable alternative, because MNDNR believes that the NWRR does not provide significantly more environmental benefit over the Project. Minnesota Rules part 4410.2300, item G, allows for an alternative to be excluded from analysis if another alternative that is analyzed in the EIS (i.e., the NAA) would likely have similar environmental benefits but substantially less adverse socioeconomic impacts. The Red and Wild Rice rivers would still get flooded using the Preserve Floodplain alternative and mitigation would still be required. The NAA offers some of the same environmental benefits yet better social benefits compared to the NWRR, so the NAA is a better alternative to evaluate.</p> <p>In response to Final EIS comments 6a and 14b, MNDNR reviewed the analysis conducted for the "Preserve Floodplain Alternative" components and determined that this alternative (with a Minnesota Alignment) was also similar to Appendix M Alternative #18 (MN35k plus more). Alternative #18 was screened out at Step 3 because: 1) it would be challenged due to political issues (unpopular to construct in Minnesota when most of the benefit occurs in North Dakota); and 2) it would be challenged by physical limitations (mitigation of downstream impacts). Alternative #18 would have unmitigatable downstream impacts, which isn't allowed by State of Minnesota floodplain regulations.</p>

Comment ID	Comment Summary	Comment Response
7a	The Commenter stated they have no comments.	Comments provided do not comment on or indicate the inadequacy of the Final EIS. Comments will be included in the record for use as needed by permitting authorities.
8a	Commenter requests redacted cultural information be used instead of the current text as it pertains to information provided on North Dakota sites.	The MNDNR did not receive comments from the North Dakota State Historic Preservation Office (ND SHPO) during the public comment period on the Draft EIS that was published and distributed and made available online in September 2015. Similar text (of concern) was included with the Draft EIS that is presented within the Final EIS with the exception of minor updates that reflect recent surveys or findings. This information was provided to MNDNR by USACE for use in the EIS. Both the Draft and Final EIS have been publically distributed with this information. It is too late to redact information. The concern expressed by the ND SHPO is acknowledged and the comment has been shared with the USACE and Project Proposer. Comment does not pertain to the adequacy of the EIS.
9a	The Commenter believes that the EIS is adequate.	Determination of adequacy is based on the conditions described in Minnesota Rules 4410.2800. Comments provided do not provide additional information regarding the criteria required for determining the EIS is adequate.
10a	Commenter is concerned that the Project purpose is for the protection and future development in North Dakota.	The commenter identified concern about two topics that were included in the EIS: 1) Land use in the area south of Fargo, 2) Flooding impacts to Minnesota. In response to Land use, the FSDD identified what was proposed in Section 3.2.5. The Final EIS complied with the FSDD in Section 3.14. In response to flooding impacts to Minnesota, the FSDD identified what was proposed in Section 3.2.8.2. The Final EIS complied with the FSDD in Section 3.16. The EIS discussed these topics in the Executive Summary "Areas of Controversy" on pages ES61-ES62. Similar concerns were received on this topic during the Draft EIS comment period and were responded to in Appendix L (document pages 147-148 and 183-184).
10b	Commenter questions the accuracy of the stated \$51 million average annual damages.	Section 3.16 and Appendix I of the EIS provided an explanation of what "Average Annual Damage" represents and no new information was received related to the accuracy of these numbers. Average Annual Damage is the average damage that would occur in any given year, spread over the 50-year life cycle of the Project (or Project Alternatives). The Average Annual Damages are calculated using a combination of likelihood of occurrence and consequence of occurrence; thus, more frequent, lower impact events are weighed more heavily in the 50-year analysis period due to their higher chance of occurrence. Commenter also submitted a comment on this topic during the Draft EIS comment period. Comment was adequately addressed in Final EIS Appendix L, Comment 72d on document page 178.

Comment ID	Comment Summary	Comment Response
10c	<p>Commenter expresses concern about Draft EIS Response to Comment 72h (Final EIS Appendix L) regarding the description of "flood fringe depths".</p>	<p>Comment 10c is nearly identical to Draft EIS Comment 72h which was submitted by the same commenter. Final EIS Comment 10c does not contain new information or a clarification of Draft EIS Comment 72h. MNDNR reviewed the response to Draft EIS Comment 72h, which is included in Final EIS Appendix L, document pages 87-88. Given that no new information or clarification was provided, MNDNR believes that the response is adequate and the commenter may be confused about comparing hydrologic models and flood depths. The commenter states that at his location, there is an 8 foot difference between existing flood depths and the anticipated 500-year flood level (using EOEP). It is assumed that the 8 foot difference described is comparing existing FEMA hydrology to the 500-year EOEP level. The EIS states on pages ES-20 and 1-4 that EOEP hydrology was utilized. Unless otherwise noted, all flood depths in the EIS referenced the 100-year EOEP event. It is not appropriate to compare depths across different hydrologic methods (FEMA to EOEP) nor from different flood events (100-year to 500-year). MNDNR does not disagree that when there is an additional one foot of water on a property than there is increased potential for basement damage (i.e., water rises above low opening into the basement, or higher levels could cause a failure of the basement walls). However, additional flood depths are measured above ground. Compared to the EOEP existing conditions, all of the fringes of the inundated area within the staging area would experience additional depths of zero to one foot for the 100-year event. Therefore, the description of the flood fringe depths is accurate in the EIS.</p>
10d	<p>Commenter requests including Wilkin County ordinance reference in Executive Summary table.</p>	<p>This request was not received as part of a comment letter on the Draft EIS. The FSDD states that the EIS will identify all known permits and approvals that may be required for the Project. Per Minnesota Rules 4410.2300, item F, the EIS did identify and include all known permits and approvals. The Wilkin County ordinance related to flood storage (Ordinance 20.05) is referenced four times in EIS Section 3.14--Land Use Plans and Regulations: 1) subsection 3.14.1.1, page 3-186; 2) Table 3.59, page 3-195; 3) subsection 3.14.2.1.1, page 3-200; and 4) subsection 3.14.2.4, page 3-205. Ordinance 20.05 was inadvertently omitted from the table in the Executive Summary, but all required information related to EIS content has been fulfilled. The EIS Administrative Record remains complete and is available for permitting authorities.</p>

Comment ID	Comment Summary	Comment Response
10e	<p>Commenter states that the EIS failed to examine the "Wild Rice Alternative" (commenter's Draft EIS comment 72p of Appendix L).</p>	<p>The commenter's alternative (their "Wild Rice Alternative") was included in the Purpose & Need and Alternative Rescreen Report (Final EIS Appendix M) as Alternative #27. The methodology used to screen alternatives was described as a 5-step process (pages 4-5 of Appendix M). The third bullet under the methodology heading reads: Steps 1-3 and 5: If the answer to a question was 'no', the alternative was determined not subject to further questions. As indicated in Appendix M, Table 1, Alternative #27 received a "no" to the question posed in Step 2; therefore, it would not advance in the process, and questions #3 through #5 would not be considered. Although the commenter believes that the alternative might have benefits over the Project, the alternative was considered infeasible because it would not be able to meet FEMA accreditation. The Wild Rice River cannot be diverted into the Sheyenne because at the suggested or assumed location the Wild Rice River is 12 feet lower than the Sheyenne and the river can't flow uphill. The response to comment is adequate.</p>
10f	<p>Commenter disagrees with the response to comment 72a (Final EIS Appendix L) related to OHB impacts to Minnesota.</p>	<p>Draft EIS comment 72a questioned the impacts of the OHB Ring Levee to Minnesota and requested MNDNR to complete an independent OHB impact analysis using EOEP hydrology. Final EIS Comment 10f makes the same request. When considering the initial request, MNDNR compared the referenced North Dakota State Water Commission letter (including the updated EOEP map and EOEP table) to desktop information on the OHB Levee. Due to the flat topography of the staging area, it was determined that the OHB Levee impacts to Minnesota would be limited to ditches. As stated in response to comment 72a (Final EIS Appendix L, document pages 95-96): "An analysis of the impacts of the OHB levee without the diversion and staging area was also completed using the Project unsteady HEC-RAS model and the same USACE EOEP hydrology that has been used for all diversion project analysis. The analysis indicates that the addition of the OHB ring levee in the absence of the diversion and staging area results in a maximum impact to the water surface elevation during a 1-percent chance event of 0.04 feet (0.48 inches). A difference of one-third inches would not change the impact analysis or alternative analysis for this EIS." Minnesota Rules part 4410.2300, item H, states that data and analyses shall be commensurate with the importance of the impact and the relevance of the information to a reasoned choice among alternative and to the consideration of the need for mitigation measures. Given the similarities between the Diversion Authority's data and MNDNR's desktop information, MNDNR did not believe that conducting an independent analysis on the OHB impacts to Minnesota would change the reasoned choice among alternatives nor the proposed or recommended mitigation measures.</p>

Comment ID	Comment Summary	Comment Response
10g	Commenter recommends comparing EOEP inundation to the existing mapped FEMA.	The comment letter does not concern a response to comment on the Draft EIS; the commenter did not request this addition during the Draft EIS comment period. Commenter is requesting comparison of the EOEP 100-year "newly" inundated acres to the existing mapped FEMA 100-year floodplain. The decision to use the EOEP is described in EIS Section 3.1. Appendix N of the Final EIS compared the existing FEMA, Period of Record and EOEP hydrologic methodologies and explained that the existing FEMA hydrology is outdated and not a reasonable choice among hydrologic methodologies. The analysis on hydrologic methodologies was also described in Appendix L, General Topic "Hydrology and Hydraulics, Expert Opinion Elicitation Panel" (Final EIS Appendix L, comments 72n and 72z).
11a	Commenter identifies several potential socioeconomic impacts and is opposed to the dam.	Commenter identifies the following potential socioeconomic impacts and concerns: flood insurance, buy-out compensation, future land value, wells and sewers, and Century Farms. All of these items are discussed in EIS subsection 3.16.2 (information on potential impacts), subsection 3.16.3 and Chapter 6 (proposed and recommended mitigation measures, respectively) and Final EIS Appendix O (Takings, Flowage Easements and Acquisition Processes).
12a	Commenter questions how people will be able to leave the staging area when the Project becomes operational.	This topic was addressed in EIS Sections 3.13 and 3.16, Chapter 6 - Table 6.16 and in the Final EIS Appendix L. Interstate Highway 29 and Highway 75 would be raised in the staging area to prevent inundation during Project operation. Small portions of Highways 81, 18, and 2 would be raised to maintain access to OHB and Comstock. All other roads would be allowed to flood under Project operation.
13a	Commenter has questions about property mitigation buyout adequacy and fairness.	A similar comment was received during the Draft EIS comment periods and was addressed in the Final EIS Appendix L, comment 204a (beginning on document page 186). In addition, the topic of value of property/buyout was discussed in the USACE FFREIS Appendix G- Real Estate, MNDNR EIS Section 3.16, and Executive Summary of the Final EIS "Areas of Controversy and Issues to be Resolved".
13b	Commenter expresses concern about Comstock Levee communications.	Final EIS Comment 13b concerns a topic that was commented on during the Draft EIS comment period (Final EIS, Appendix L, pages 23-24). This comment does not provide new information or a clarification that would change the response.

Comment ID	Comment Summary	Comment Response
14a	<p>Commenter states that changing the Project purpose eliminated alternatives and renders the EIS and the environmental review inadequate through MEPA.</p>	<p>The role of MNDNR in the development of the purpose for this EIS was related to the alternative screening and analysis that is required as part of the Minnesota State EIS process. During Minnesota EIS Scoping for the EIS there were discussions with the USACE to understand the criteria that had been used in the FFREIS for alternatives analysis. These discussions resulted in a determination that the criteria for alternative screening and analysis that was used by the USACE for the federal process would not comply with the requirements of Minnesota Rules, part 4410.2300, item G, which identifies the alternative screening and analysis that must be used as part of a Minnesota State EIS process. One of the criteria for the Minnesota State EIS alternative screening and analysis is a determination of whether or not the alternative meets the Project purpose. The purpose for the Project as stated in the FFREIS (Section 2.5) was “...to reduce flood risk, flood damages and flood protection costs related to the flooding in the Fargo-Moorhead Metropolitan Area.” Planning objectives included: “reducing 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 flood risk management features, and provide recreational opportunities with other flood risk management features.” (FFREIS). This fulfilled the requirements under NEPA CEQ regulation, Section 1502.13—the Purpose and Need Statement “shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.” A more refined Project purpose was used for the Clean Water Act Section (404(b) (1) evaluation (Attachment 1 – FFREIS) that considered the non-Federal sponsors needs for the Project which included addressing flooding from the five tributaries. For the State EIS, the MNDNR sought to clarify the Project purpose and need that would be able to be applicable for use in the alternative screening and analysis as needed for the State EIS process. Therefore, a Project purpose and need statement for the EIS was developed by the Diversion Authority in consultation with the USACE to meet the needs of the state environmental review process. The purpose and need as detailed in the Draft EIS was accepted by the MNDNR for use during the scoping process and Draft EIS. In response to public comment on the Draft EIS the DNR conducted a rescreening of potential alternatives using a broader Project purpose that only incorporated 100-year flood protection. This evaluation did not identify any additional alternatives that warranted evaluation in the Final EIS. The alternative rescreening was included in Appendix M of the Final EIS. Within the state EIS process the Project purpose was not changed. In addition, Appendix M subjected the Project purpose to a sensitivity analysis to ensure it was not overly narrow as to prevent a meaningful evaluation of alternatives.</p>

Comment ID	Comment Summary	Comment Response
14b	Commenter states that the EIS failed to examine the comments of Charlie Anderson, Professional Engineer.	See response to comment 6a.
14c	The Commenter believes the EIS is inadequate because the discussion of E.O. 11988 is limited to how it relates to federal agencies' responsibilities under the executive order. The commenter suggests that the tenets and principles contained within E.O. 11988, such as limiting development in the floodplain and protecting floodplain ecological function, are enforceable under state and local laws and rules. Specific examples provided include but are not limited to MEPA, Floodplain Management Act, and Red River Mediation Agreement.	Although the EIS discussion on E.O. 11988 is limited to the federal agencies' responsibilities (subsection 1.5.1.3), the EIS does address how the project relates to the underlying tenets of floodplain development and preservation of floodplain ecological function. Section 3.2 (FEMA Regulations and the CLOMR Process) and Section 3.14 (Land Use Plans and Regulations) identify how the Project relates to floodplain management and the considerations for decision-makers. The EIS also discloses potential impacts to floodplain ecological function in Section 3.1 (Hydrology and Hydraulics), Section 3.3 (Stream Stability), Section 3.6 (Cover Types), Section 3.8 (Fish Passage and Biological Connectivity), and Section 3.9 (Wildlife and Wildlife Habitat). The response to comments on the Draft EIS that was included in the Final EIS as Appendix L acknowledged that the Project was not developed under the Red River Basin Mediation Agreement. It is not mandatory that projects be developed under the Mediation Agreement framework; however projects that do not use the framework will be risking much greater regulatory uncertainty than projects that are developed under the framework. The EIS does not violate MEPA under Minnesota Statutes 2008, section 116D.04, subdivision 6, because that statute is related to a decision and the EIS is not a decision document. EISs are intended to inform decision-makers. State Statute 116D.04, subpart 6 will be considered during permitting. The EIS provides relevant information on floodplain development and impacts to floodplain ecosystem function to be considered by decision-makers and regulators of the project.

Comment ID	Comment Summary	Comment Response
14d	Commenter states that Project will violate Minnesota's mediated settlement.	Similar comments were received during the Draft EIS comment period. The Final EIS Appendix L response to comment 97a and 97b acknowledges that the Project may not be compliant with the 1998 Mediation Agreement. It is important to note that the purpose of the mediation agreement was not to make all criteria required for all projects, but rather projects developed outside the mediation agreement criteria are done so at risk of not gaining regulatory approval after significant effort in project development.
14e	Commenter is concerned that the Project purpose is for the development of the floodplain in North Dakota.	See response to comment 5a.
15a	Commenter requests that roadway closure and evacuation planning information from the OMRR&R be made public.	The Operation and Maintenance Plan and OMRR&R Plan were not specifically scoped to be included in the EIS and no comments on this topic were received during the Draft EIS comment period. Much of the information necessary to complete the Operation and Maintenance Plan and the OMRR&R Plan are still under development and are dependent upon final or close-to-final design plans being available. An operation and maintenance plan and an emergency action plan would be required as part of the MNDNR dam safety and public waters work permit application as discussed in EIS Section 3.15. As some of the information in these documents may be sensitive or pose security concerns, the USACE and non-Federal sponsors have stated that at this time they would consider specific requests for information when requests are made. The Diversion Authority has stated that they intend to provide to the public relevant operation and maintenance information prior to start of Project operation. This would include things such as maintenance/clean-up plans for after an operation event and emergency evacuation plans.
15b	Commenter questions the estimate of 30,000 acres of inundation under the 100-year flood.	No comments on this topic were received during the Draft EIS comment period. The estimated acreage referenced by the Commenter is close to the approximate acreage (stated as approximately 32,000 acres within the EIS) that would be inundated within the staging area boundary under a 100-year flood scenario. The difference between the staging area and "inundation area" is fully described in EIS subsection 2.1.1.5. Total "new inundation" within the staging area boundary is approximately 17,000 acres, with currently inundated acreage of approximately 15,000. These numbers are based off of the USACE's and Diversion Authority's Hydrology and Hydraulics Phase 7.0 model (as was used for models/numbers presented in the EIS). Commenter did not provide new information that would cause MNDNR to question the model results.

Comment ID	Comment Summary	Comment Response
15c	Commenter is concerned that operation of the Project (which would include the channel) would create impacts outside of the channel and outside of the staging area that would not receive compensation.	EIS subsection 3.16.3.2.3 discussed areas outside of the staging area and outside of the FEMA revision reach that may be impacted by the Project (i.e., areas to the north, east and west of the Diversion Channel). For these properties, the USACE has proposed performing an analysis to determine if a taking has occurred on a case-by-case basis. Mitigation measures proposed which involved the takings process were discussed in the Final EIS in several locations, including 3.12 Cultural Resources, 3.16.3 Proposed Mitigation and Monitoring Measures, and several other locations. A more detailed discussion on the description of a "taking" and the analysis process that USACE is proposing was discussed in Final EIS Appendix O. The Final EIS did disclose potential uncertainty in the suitability of proposed mitigation for inundation outside the staging area. MNDNR developed additional mitigation recommendations to address this uncertainty and included these recommendations in the Final EIS for regulators and the project proposers to consider. Similar concerns were submitted during the Draft EIS comment period and are responded to in Appendix L. A discussion and table (Table 3.3) pertaining to potential downstream Project impacts was included in the Final EIS in subsection 3.1.2.1.1.
15d	Commenter is concerned about funding responsibility and availability for potential additional mitigation needs.	Contingency mitigation funding was discussed in EIS subsection 6.3.1.3, financial assurances are recommended in numerous tables within Chapter 6, and in the Adaptive Management and Monitoring Plan within the "Response Action or Additional Mitigation Implementation Considerations" section (Appendix B to the EIS). Similar comments were received on this topic during the Draft EIS comment period and responded to in Appendix L under Topic "Mitigation and Monitoring, Funding" which stated that additional detail on mitigation commitments and financial obligation would be developed as part of the permit application process.
15e	The Commenter identifies a water resource near an identified cemetery that the Commenter suggests may have unidentified connections to area aquifers.	MNDNR did not identify the impacts to aquifers as a topic to be included in the scope of the EIS since the USACE FFREIS had adequately covered the topic in part 4.2.1.7. Potential effects of the Project and Project Alternatives to groundwater, including wells, is addressed in EIS Section 3.16. Related comments received during the Draft EIS public comment period were responded to in Appendix L (Socioeconomics, Wells and Groundwater Quality, document p.197). Potential impacts to groundwater were identified as part of the Adaptive Management and Monitoring Plan, so this information will be shared with permitting authorities.

Comment ID	Comment Summary	Comment Response
15f	Commenter provided information from the FFREIS and speculates on why the LPP was selected.	Comments provided do not comment on or indicate the inadequacy of the Final EIS. Comments will be included in the record for use as needed by permitting authorities.
15g	Commenter questions the sufficiency of mitigation proposed in the FEMA/USACE Coordination Plan.	Commenter is discussing concerns for or on the criteria detailed within the FEMA/USACE Coordination Plan which was specifically developed to address FEMA requirements. No comments on this topic were received during the Draft EIS comment period. FEMA requires mitigation for impacts up to the 100-year flood. The FEMA/USACE Coordination Plan was developed outside of the EIS process and is described in Section 3.2 of the EIS and was included as Appendix F of the EIS. Impacts to property located outside of the revision reach as well as proposed mitigation for those impacts are discussed in detail within Section 3.16. Chapter 6 included a discussion on the proposed mitigation and included recommendations for additional mitigation that go beyond that which has been proposed as well as recommended mitigation for impacts that may not have been identified or considered by the Project Proposer. Discussion on the sufficiency of the proposed takings, flowage easements and acquisitions can be found in Appendix O of the Final EIS. Appendix L responds to related concerns about general mitigation sufficiency under Topic "Socioeconomic, Mitigation."
15h	Commenter questions staging area access during Project operation.	This topic was addressed in EIS Sections 3.13 and 3.16, Chapter 6 - Table 6.16 and in the Final EIS Appendix L. Interstate Highway 29 and Highway 75 would be raised in the staging area to prevent inundation during Project operation. Small portions of Highways 81, 18, and 2 would be raised to maintain access to OHB and Comstock. All other roads would be allowed to flood under Project operation. Health Care Facility and Emergency Services access is addressed in EIS subsection 3.16.2.3.2.
15j	Commenter is concerned about the takings process and definition of impacted properties. See also comment summary 15c.	See response to comment 15c.

Comment ID	Comment Summary	Comment Response
15i	Commenter states that temporary flood impacts to cemeteries are a taking.	Mitigation measures proposed which involved the takings process were discussed in the Final EIS in several locations, including 3.12 Cultural Resources, 3.16.3 Proposed Mitigation and Monitoring Measures, and several other locations. In response to comments and questions received during the Draft EIS public comment process further information regarding the takings process was developed and included in the Final EIS as Appendix O - Takings, Flowage Easements and Acquisition Processes. In addition, comments on this topic were responded to in the Response to Comments document, Appendix L, under several topics, including "Cultural Resources, Cemetery Taking" (p.39).
15k	The Commenter comments on how improbable a 500-year flood is.	Comments provided do not comment on or indicate the inadequacy of the Final EIS. Comments will be included in the record for use as needed by permitting authorities.
15l	The Commenter suggests that the purpose of the Project is to increase development south of Fargo.	See response to comment 5a.
15m	Commenter believes the NDSU Study is flawed and unreliable.	Final EIS Appendix L, Comment 41v (document page 189) addressed this comment. In addition, the Final EIS included a discussion on the Initial Assessment of the Agricultural Risk of Temporary Water Storage for FM Diversion ((NDSU Initial Ag Impact Study), NDSU 2015) in subsection 3.16.2.3.8. The NDSU Study assumptions and limitations, as well as numerous recommendations for further study, were included within the discussion.
15n	The Commenter questions the impacts to culverts due to ice and snow buildup.	The comment provided reiterates comments received during the Draft EIS comment period. This topic is covered in the FEIS Appendix L under Topic "Hydrology and Hydraulics, NDSU Initial Agricultural Risk Impact Study" (document page 94). Commenter did not provide new information on this topic that would change the EIS analysis.

Comment ID	Comment Summary	Comment Response
15o	The Commenter questions the estimated changes in water surface elevation due to additional infrastructure (such as raised or modified cemetery access roads, and the OHB and Comstock ring levees), and questions the value judgment between acceptable levels of impact.	Water surface elevation changes from the OHB and Comstock ring levees were a concern received during the Draft EIS comment period and were responded to in Appendix L. See also response to Final EIS comment 10f (above). The sufficiency of proposed cemetery mitigation is discussed in Final EIS Appendix O (takings, flowage easements and acquisition processes).
15p	Commenter is concerned about funding for additional mitigation.	See response to comment 15d.
16a	Commenter is concerned that no mitigation is proposed to the north, east and west of the Diversion Channel. Specific area of concern is downstream of the diversion.	EIS subsection 3.16.3.2.3 discussed areas outside of the staging area and outside of the FEMA revision reach that may be impacted by the Project (i.e., areas to the north, east and west of the Diversion Channel). For these properties, the USACE has proposed performing an analysis to determine if a taking has occurred on a case-by-case basis. Mitigation measures proposed which involved the takings process were discussed in the Final EIS in several locations, including 3.12 Cultural Resources, 3.16.3 Proposed Mitigation and Monitoring Measures, and several other locations. A more detailed discussion on the description of a "taking" and the analysis process that USACE is proposing was discussed in Final EIS Appendix O. Similar concerns were submitted during the Draft EIS comment period and are responded to in Appendix L. Specifically, the property of concern is located downstream of the diversion. A discussion and table (Table 3.3) pertaining to potential downstream Project impacts was included in the Final EIS in subsection 3.1.2.1.1.

Comment ID	Comment Summary	Comment Response
16b	The Commenter expresses concerns regarding the build-up of salts during flooding and the impacts to agricultural productivity.	The comment provided reiterates comments received during the Draft EIS comment period. This topic is covered in the Final EIS Appendix L Topic "Potential Environmental Hazards, Salt Impacts" (document page 132). Commenter does not provide new information that would change the EIS analysis.
17a	The Commenter questions how agricultural mitigation, including compensation, will be determined for impacted landowners.	Agricultural impacts and planned mitigation strategies are included in the Final EIS in Sections 3.16, Chapter 4, and Appendices J and O. Similar comments received during the public comment period were responded to in Appendix L Topic "Socioeconomics, Agricultural Mitigation" (document pages 173-177). Commenter does not provide new information that would change the EIS analysis.
18a	Commenter states concern that organic farm impacts and mitigation is not sufficiently covered in Appendix K - Organic Farm Inventory Memo.	Comments received during the Draft EIS comment period related to this topic are responded to in Appendix L Topic "Socioeconomic, Organic Farms." The topic of organic farms - impacts, proposed mitigation and recommended mitigation was discussed in several sections of the EIS. These include Section 3.16 and Chapter 6 of the EIS, Appendix K, Appendix L (document pages 170-173), and Appendix O. It should be noted that while Section 3.16 identified potential impacts resulting from Project construction and operation to organic farms, only proposed mitigation and monitoring was identified within this section (3.16.3). Chapter 6 (Table 6.19) included a discussion on proposed mitigation as well as additional recommended mitigation on impacts that have been previously identified by the Project Proposer as well as those potential impacts that have been identified through the development of the EIS from the MNDNR, technical experts and commenters. Appendix K was focused primarily on the identification of organic farms in the project area and provided a brief discussion on organic farm certification and Project Proposer proposed mitigation. Appendix O included discussion on potential gaps in proposed mitigation and recommendations for additional mitigations for agricultural land, including organic farms.

Comment ID	Comment Summary	Comment Response
18b	Commenter does not believe that the EIS adequately addressed downstream impacts from the Diversion Channel reentering the Red River.	The Final EIS included a discussion and table (Table 3.3) pertaining to potential downstream Project impacts in subsection 3.1.2.1.1. The MNDNR also addressed concerns and comments on downstream impacts in Final EIS Appendix L Topic "Hydrology and Hydraulics, Downstream Impacts" on document pages 82-83.
19a	Commenter provides an opinion opposing the Project.	Comments provided do not comment on or indicate the inadequacy of the Final EIS. Comments will be included in the record for use as needed by permitting authorities.
20a	Commenter states that the Project should have no adverse effect on the NDDOT highways, but if work needs to be done on highway right of way, appropriate permits and risk management documents will need to be obtained from NDDOT.	Comments provided do not comment on or indicate the inadequacy of the Final EIS. Comments will be included in the record for use as needed by permitting authorities.