

CECW-MVD

MEMORANDUM FOR RECORD

SUBJECT: Red River of the North, Fargo, North Dakota – Moorhead, Minnesota, Flood Risk Management Project, Feasibility Report and Environmental Impact Statement (Study), Civil Works Review Board (CWRB)

1. The subject meeting was held 23 September 2011 from 1300 until 1555 EST. The Agenda (Attachment 1) and List of Attendees (Attachment 2) are attached.
2. The purpose of the meeting was to gain approval by the CWRB to release the Study for State and Agency (S&A) Review.
3. The meeting was opened by Mr. Steve Stockton, CWRB Chair and Director of Civil Works, who offered welcoming remarks and provided an overview of the meeting purpose for the benefit of the Study Sponsors and others in attendance. The CWRB is a corporate checkpoint to ensure that documents are ready for S&A Review, and to provide an opportunity for learning and sharing within the organization. Mr. Stockton encouraged an open and transparent discussion of issues. After Mr. Stockton's opening remarks ND Senators Kent Conrad and John Hoeven, MN Senator Amy Klobuchar, and ND Representative Rick Berg were provided an opportunity to make statements in support of the Study and the LPP.
4. Colonel Michael Price, Commander, St. Paul District (District), provided the briefing of the Fargo-Moorhead Metropolitan Area Feasibility Study, including the study authority, the problems addressed, future without-project conditions, alternatives considered, the Recommended Plan and its costs, and the status of the Agency Technical Review (ATR), Independent External Peer Review (IEPR), and Office of Water Project Review (OWPR).
5. The Recommended Plan, the Locally Preferred Plan (LPP), is a 36 mile long North Dakota Diversion channel. The LPP is a 20,000 cfs diversion channel with 50,000 acre feet storage area and 150,000 acre feet staging area upstream. The LPP contains 10 miles of tie-back levees and control structures on the Red and Wild Rice rivers, aqueduct and spillway structures on the Sheyenne and Maple rivers, and drop structures on the Lower Rush and Rush rivers. The LPP incorporates recreation features. Non-structural mitigation for impacts in the upstream staging and storage areas is included in the LPP.

The LPP provides in excess of the 1-percent chance level of risk reduction. The LPP has a benefit to cost ration of 1.76. Based on October 2011 prices levels, the estimated total first cost

SUBJECT: Red River of the North, Fargo, North Dakota – Moorhead, Minnesota, Flood Risk Management Project, Feasibility Report and Environmental Impact Statement, Civil Works Review Board

of the LPP is \$1,781,348,000. The Federal share of this first cost is \$801,542,000 and the non-Federal share is \$979,806,000.

6. The study briefing was followed by statements from sponsors including the state of North Dakota, represented by Hon. Jack Dalrymple, Governor; City of Fargo, ND represented by Hon. Dennis Walaker, Fargo City Mayor; City of Moorhead, MN represented by Hon. Mark Voxland, Moorhead city Mayor; and Cass County, ND represented by Mr. Darrell Vanyo, Cass County Commission Chairman. Governor Dalrymple described the impacts of flood events in the area and emphasized the need for a permanent flood risk management project. Both the mayor of Fargo and Mayor of Moorhead expressed strong support of the Study recommendations and noted that the LPP is the right plan for the area and will benefit Fargo and Moorhead in the near and long-term future. The Cass County Chairman presented slides and two videos that illustrated the flood problems and impacts in the area. All of the speakers were in favor of the LPP, the Recommended Plan.

7. MG. Michael J. Walsh, Commander, Mississippi Valley Division, provided Division concurrence with the District Commander's Recommended Plan and recommended approval of the final Study and release of the Study for S&A Review. He found the Study complied with all applicable laws and policies, was consistent with the Corps' Environmental Operating Principles, and anticipated a favorable response to the proposed Report of the Chief of Engineers.

8. Mr. Christopher Fassero, Review Leader, Agency Technical Review (ATR), Omaha District, presented a summary of issues noted and resolved during the review process. ATR was conducted at various stages during the process, and in total the Study received 617 comments. One ATR issue was the classification of the embankment surrounding Storage Area 1 as a levee versus dam. The District has addressed this issue with their vertical team and all ATR comments have been resolved. Mr. James Dalton asked Mr. Michael Bart, Chief of Engineering and Construction, MVP, for further clarification. Mr. Bart stated that extensive analysis of the system had been performed during the feasibility phase and that during PED, the district would continue to assess and re-evaluate the embankment through risk-based analysis and future computer modeling. Mr. Dalton agreed with the path forward concerning this issue.

9. Mr. Julian Digialleonardo, Project Manager, Battelle Memorial Institute, summarized the IEPR process for the study. The important issues identified by the IEPR Panel include environmental analyses, hydraulic and hydrologic engineering studies, geotechnical engineering studies, economic analyses, and civil design and construction cost engineering studies. Final coordination and review between the IEPR Panel and the Product Delivery Team (PDT) resolved all comments. The IEPR process ended with participation in the CWRB.

Mr. Brandon Kulik served on the IEPR Panel as the NEPA and Biology Expert. He provided an overview of primary concerns raised during the IEPRs and that they had been fully resolved. Mr.

SUBJECT: Red River of the North, Fargo, North Dakota – Moorhead, Minnesota, Flood Risk Management Project, Feasibility Report and Environmental Impact Statement, Civil Works Review Board

Kulik stated that the Study's primary improvement was the addition of upstream staging and storage to address downstream impacts.

10. Mr. Thomas Hughes, Review Leader, Headquarters Office of Water Project Review (HQ OWPR) presented a summary of areas of significant policy concern during the review of the Study, as well as their resolution. He indicated that OWPR had identified three areas of policy concern, and that all three issues have been resolved. The concerns were:

- A) Flood Fighting Effectiveness
- B) NED, Federally Comparable Plan, and Locally Preferred Plan
- C) Downstream Impacts

The HQ OWPR recommended approval to release the Study for S&A Review.

11. Following is a summary of questions and issues raised during the Board's discussion of the Study.

A. Mr. Steve Stockton asked if FEMA has approved the less-than 4 inches of downstream impacts as being negligible. Mr. Aaron Snyder stated that a significant amount of coordination with FEMA has occurred. The impacted areas have been defined and a 6-inch tie in with the existing mapping has been informally agreed to. There should be no additional requirements of the sponsors and the Corps.

B. Mr. David Leach made a comment related to PCX involvement. The district noted that PCX was involved in selecting Omaha for the ATR

C. Mr. James Dalton made a comment related to climate change. He suggested that during Pre-construction Engineering and Design (PED), the District consult with the climate change steering committee to ensure climate change issues continue to be addressed as available technology evolves.

D. Mr. Tab Brown asked how the three flood-related deaths in 2011 had occurred. Colonel Michael Price stated that one death was the result of a heart attack and two occurred when a boat capsized.

E. Mr. Tab Brown asked if the Study was in compliance with the 1909 Boundary Waters Treaty as noted as a Study Constraint. Mr. Aaron Snyder confirmed that the LPP is in compliance with the Treaty.

F. Mr. Tab Brown asked about the velocity and depths of flooding in the area. Col. Price stated that depths occur up to 25 feet and velocities up to 4.5 feet per second.

SUBJECT: Red River of the North, Fargo, North Dakota – Moorhead, Minnesota, Flood Risk Management Project, Feasibility Report and Environmental Impact Statement, Civil Works Review Board

G. Mr. Tab Brown asked about conditions during flood events, what egress routes are cut off, and what access to key facilities is restricted. Hon. Walaker, Mayor of the city of Fargo, responded and stated that some health care facilities have been evacuated in the past, but most residents stay because flood-fighters and emergency-measures monitors are needed. Mayor Walaker asked if the flood fight would have to fail before the Fargo-Moorhead area would get a flood risk reduction project.

H. Mr. Tab Brown asked about the major damages that would occur in the 100 year flood event in the city. Mayor Walaker stated that the new 100 year flood would be hard to fight. The city would not be able to defend against a 500 year flood and residents would be forced to leave.

I. Mr. Tab Brown asked about the breakdown of benefits by percentage. Mr. Aaron Snyder stated that the standard benefit categories were used and that a large majority, greater than 90%, were direct damages from flooding. Other benefit categories for damages avoided include emergency costs avoided and reduced flood insurance payments.

J. Mr. Cliff Fitzsimmons stated he was involved in the AFB and that the Office of the Assistant Secretary of the Army for Civil Works had no questions or concerns.

K. Mr. James Dalton asked what the period of construction and the cost estimate confidence level are. Mr. Aaron Snyder stated that the cost estimate was certified by the Cost DX at 80% with a 26% contingency rate. Construction could begin in April 2013 and would last 8.5 years if authorization and funding are provided.

12. Mr. Tab Brown asked Mr. Wesley Coleman and Mr. Tom Hughes if all reviews were completed. Mr. Coleman and Mr. Hughes both agreed that the reviews are complete.

Mr. Tab Brown moved to release the Study for S&A Review.

13. The Board voted unanimously for release of the Study for S&A Review.

14. The meeting concluded with discussions led by Colonel Price and MG Walsh of the following challenges and lessons learned:

- A. Employing regional assets and A/E firms is important to achieve accelerated schedule.
- B. Engage the Vertical Team early and often.
- C. PDT must actively participate in the ATR and IEPR processes.
- D. Effective & continuous communication is essential.
- E. Sponsor willing to make decisions at key milestones.

SUBJECT: Red River of the North, Fargo, North Dakota – Moorhead, Minnesota, Flood Risk Management Project, Feasibility Report and Environmental Impact Statement, Civil Works Review Board

F. Aggressive schedule necessitated making many key assumptions and working on parallel tracks.

15. Mr. Stockton thanked everyone for their attendance and participation and closed the meeting at approximately 1555 hours.

Attachment #1

**FARGO-MOORHEAD METROPOLITAN AREA, ND & MN
Civil Works Review Board - 23 September 2011**

AGENDA

- 1300 Welcome Mr. Steve Stockton
CWRB Chair and Director of Civil Works
- 1305 Introductions Mr. Steve Stockton
CWRB Chair
- 1310 Project Briefing COL Michael Price
District Commander, St. Paul District
- 1400 Sponsor Support Hon. Jack Dalrymple – *Governor, North Dakota*
Hon. Dennis Walaker – *Mayor, City of Fargo, ND*
Hon. Mark Voxland – *Mayor, City of Moorhead, MN*
Mr. Darrell Vanyo – *Chair, Cass County Commission*
- 1420 Division Commander Briefing MG Michael Walsh
Division Commander, Mississippi Valley Division
- 1435 Agency Technical Review Mr. Christopher Fassero, *ATR Lead, Omaha District*
- 1440 Independent External Peer Review Mr. Julian Digialleonardo (*via phone*)
IEPR Project Manager, Battelle Memorial Institute
- 1445 Break (10 minutes) Mr. Steve Stockton
CWRB Chair
- 1455 Policy Review Assessment Mr. Tom Hughes
Review Lead, Office of Water Project Review
- 1500 Board Discussion Mr. Steve Stockton
▪ Member Questions *CWRB Chair*
▪ Office of ASA(CW), OMB Questions
- 1525 Action Mr. Theodore Brown
Chief, Planning and Policy Division
- 1530 Lessons Learned / After Action Report: COL Michael Price
▪ What was supposed to happen? *District Commander, St. Paul District*
▪ What did happen?
▪ Why did it happen that way?
▪ How will we improve next time?
- 1535 Lessons Learned MVD, OWPR, Sponsor, Others
- 1540 Close Mr. Steve Stockton
CWRB Chair

Attachment #2

**FARGO-MOORHEAD METROPOLITAN AREA, ND & MN
FLOOD RISK MANAGEMENT PROJECT**

**Civil Works Review Board
23 September 2011 – 1:00 pm
Attendees**

Civil Works Review Board (CWRB)

	<u>Name:</u>
CWRB Chair and Director of Civil Works	Mr. Steve Stockton
Chief, Planning and Policy Division	Mr. Theodore (Tab) Brown
Chief, Engineering and Construction Community of Practice	Mr. James Dalton
Chief, South Pacific Division Regional Integration Team	Mr. Scott Whiteford
Director of Programs, North Atlantic Division	Mr. David Leach

Office of Management and Budget (OMB)

OMB Examiner	Mr. William (Dick) Feezle
OMB Examiner	Mr. Matthew Siegel
OMB Examiner	Ms. Emma Roach

Government Accountability Office (GAO) – Observing

GAO Analyst	Ms. Vondalee Hunt
GAO Analyst	Ms. Darnita Akers

Department of the Army – Office of Assistant Secretary of the Army for Civil Works

Senior Water Resources Planner	Mr. Cliff Fitzsimmons
Assistant for Water Resources Planning	Mr. Gregory Steele

Office of Counsel

Counsel, USACE	Mr. Scott Murphy
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Planning and Policy Division

Deputy, Planning and Policy Division	Mr. Harry Kitch
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Office of Water Project Review (OWPR)

Chief, Office of Water Project Review	Mr. Wesley Coleman
Policy Review Lead	Mr. Tom Hughes
Policy Review Team	Mr. Charles (Lee) Ware
Policy Review Team	Mr. Mark Matusiak
Policy Review Team	Mr. George Boguslawski
Policy Review Team	Mr. John Lucyshyn
Civil Works Review Board Team	Ms. Patricia Bee
Civil Works Review Board Team	Ms. Marilyn Benner

Attendees (cont.)

Mississippi Valley Division Regional Integration Team (MVD RIT)

Civil Works Deputy, Mississippi Valley Division RIT	Mr. Zoltan Montvai
Planning Program Manager, MVD RIT	Mr. John Lucyshyn

Mississippi Valley Division (MVD)

Division Commander	MG Michael Walsh
Director of Programs	Mr. Eddie Belk
Chief, Planning Community of Practice	Mr. Rayford Wilbanks
Chief, District Support Team	Mr. Charles Barton
Program Manager, District Support Team	Ms. Elizabeth Ivy

St. Paul District (MVP)

District Commander	COL Michael Price	
Chief, Regional Planning and Environment Division, North	Mr. Tom Crump	
Deputy for Programs and Project Management	Ms. Judy DesHarnais	
Chief Engineering and Construction Division	Mr. Michael Bart	
Chief, Plan Formulation Section	Mr. Craig Evans	
Chief, Project Management	Mr. Aaron Snyder	
Project Manager	Mr. Brett Coleman	
Project Manager	Ms. Terry Williams	
Environmental Lead	Mr. Jon Sobiech	
Economics	Mr. Lance Awsumb	(via phone)
Hydrology and Hydraulics Engineer	Mr. Aaron Buesing	(via phone)
Real Estate	Mr. John Albrecht	(via phone)
Cost Engineer	Mr. Jeff Hansen	(via phone)
Office of Counsel	Ms. Molly McKegey	(via phone)
Geotechnical Engineer	Mr. Kurt Heckendorf	(via phone)
Environmental	Mr. Elliott Stefanik	(via phone)

Flood Risk Management Planning Center of Expertise (PCX) – South Pacific Division

Program Manger, FRM-PCX	Mr. Eric Thaut	
Agency Technical Review Lead (Omaha District)	Mr. Christopher Fassero	
PCX Lead for IEPR (Baltimore Dist.)	Mr. David Robbins	(via phone)

Independent External Peer Review Team (IEPR)

IEPR Program Manager	(Battelle Memorial Institute)	Ms. Karen Johnson-Young	(via phone)
IEPR Project Mgr	(Battelle Memorial Institute)	Mr. Julian Digialleonardo	(via phone)
Panel Lead - NEPA and Biology	(Kleinschmidt Assoc)	Mr. Brandon Kulik	(via phone)
Panel - Hydrology and Hydraulics	(University of Illinois)	Dr. Marcelo Garcia	(via phone)
Panel - Geotechnical	(Spaulding Consultants, LLC)	Mr. Douglas Spaulding	(via phone)
Panel - Economics	(Environ, Inc)	Dr. Gretchen Greene	(via phone)
Panel - Civil Dsgn/Constrtuctn Cost	(Belt Collins West,Ltd)	Mr. David Love	(via phone)

City of Fargo, ND – Non-Federal Sponsor

Mayor
City Commissioner/Deputy Mayor
City Administrator
City Engineer
Senior Engineer
City of Fargo, Podesta Group

Hon. Dennis Walaker
Mr. Tim Mahoney
Mr. Pat Zavoral
Mr. Mark Bittner
Ms. April Walker
Mr. David Morgenstern

City of Moorhead, MN – Non-Federal Sponsor

Mayor
City Engineer
City Manager

Hon. Mark Voxland
Mr. Bob Zimmerman
Mr. Michael Redlinger

Cass County, ND

Commissioner
County Administrator
Vice Chairman, Cass County Joint Water Resource District

Mr. Darrell Vanyo
Mr. Keith Berndt
Mr. Rodger Olson

Clay County, MN

Commissioner

Mr. Grant Weyland

State of North Dakota

Governor
Senior Policy Advisor
DC Senior Policy Advisor

Hon. Jack Dalrymple
Dr. Andrea Travnicek
Ms. Krista Carmen

Congressional Offices

United States Senate
United States Senate
United States Senate
Office of Senator Kent Conrad, ND
Office of Senator Kent Conrad, ND
Office of Senator John Hoeven, ND
Office of Senator Amy Klobuchar, MN
Office of Senator Al Franken, MN
Office of Representative Rick Berg, ND
Office of Representative Rick Berg, ND

Senator Kent Conrad, ND
Senator John Hoeven, ND
Senator Amy Klobuchar, MN
Ms. Tracee Sutton
Ms. Samantha Offerdahl
Mr. Josh Carter
Mr. Travis Talvitie
Mr. Jake Schwitzer
Mr. Kevin Caulfield
Ms. Judith Roberts

MEDIA – Minnesota Public Radio (Observing)

Mr. Brett Neely (via phone)