Fargo-Moorhead Area Flood Diversion Task Force
Summary of Meeting
Wednesday, Nov. 1, 2017
Minnesota State University, Comstock Memorial Union

PRESENT

- Gov. Doug Burgum – Governor of North Dakota
- Gov. Mark Dayton – Governor of Minnesota
- Del Rae Williams – Mayor of Moorhead, MN
- John Strand via phone – Fargo City Commissioner
- Ron Bergan – Fargo business leader and entrepreneur
- Tim Fox – Former Wilkin County Attorney
- Jason Benson – Cass County Engineer
- Joel Paulsen – Moorhead City Council member
- Nathan Berseth – Richland County Commissioner
- Heidi Durand – Moorhead City Council member
- Tami Norgard – Natural resources attorney
- Mark Anderson – Treasurer of Buffalo-Red Watershed District
- Curt Johannsen – Mayor of Hendrum, MN
- Ken Vein – Grand Forks City Council member
- Jenny Mongeau – Clay County Commissioner
- Bernie Dardis – Greater North Dakota Chamber Board Chair
- Steve Jacobson – Norman County Commissioner
- Craig Hertsgaard – Richland County farmer
- Barb Naramore – Minnesota Department of Natural Resources Assistant Commissioner
- Tom Landwehr – Minnesota Department of Natural Resources Commissioner

WELCOME

The meeting was called to order at 10:11 a.m.

Governors' Welcome

- Both Governors thanked the members for attending and noted that Minnesota State University is an important institution for the community.

Meeting Minutes and Task Force Charter

- Gov. Burgum asked if anyone had changes to the meeting minutes. Commissioner Steve Jacobson motioned to approve the minutes. City Council Member Ken Vein seconded. The motion was tabled until members of the committee could fully read the minutes.
- Attorney Tami Norgard suggested the second bullet on the second page of the charter under design principals should read "What are the operating plan and governance requirements implicit in the project design. Mr. Mark Anderson motioned to approve the Charter. Mr. Bernie Dardis seconded. Motion was unanimously approved.

MINNESOTA PERMITTING CONSIDERATIONS AND LESSONS LEARNED FROM FINDINGS OF FACT

Presentation by Mr. Kent Lokkesmoe

- Mr. Lokkesmoe mentioned a fact sheet about permitting requirements had been given to the task force members. He noted that the permit review process doesn't identify alternatives, but looks at what permit applicant is asking for and reviews based on the facts presented in the application. He noted that the Environmental Impact Study (EIS) is a separate process. The EIS that has been completed was found to be adequate. Note the EIS is not a decision document. Mr. Lokkesmoe noted the DNR is typically reluctant to permit mid to high hazard dams, especially if there are alternatives. Consult Statute103G.246 Subd. 6 for additional information regarding requirements to conform to other water and land use resource management plans. DNR prefers to maximize the benefits of using the natural floodplain. Commissioner Landwehr noted that there is floodplain behind the embankment of the current project and that was an issue. Gov. Dayton asked what kind of analysis is done on other project options. The Commissioner replied that the permit application only reviewed the project as suggested.

Questions for Mr. Kent Lokkesmoe

- Attorney Norgard asked what the DNR would allow to be permitted. Mr Lokkesmoe said one purpose of the task force is to design principals. Questions about how much water can safely pass through town, and if locations of structures could change, would be engineering details. The DNR is not the designer or developer of the project. Commissioner Landwehr noted that projects are considered as a package and there is not a specific "line in the sand." DNR is part of the Task Force to advise when an element of a proposal doesn't abide by statute.
- Gov. Burgum asked for the definition of a high-hazard dam. Mr. Lokkesmoe said a high-hazard dam has the potential of loss of life or significant property damage if it was to fail. c Mayor Del Rae Williams asked about the difference between a dam and a levee if they fail. Mr. Lokkesmoe noted that levees are not considered as dams under regulation and law.
- There was discussion about county and township ordinances and they would be considered items that a project would have to conform to be permitted by the DNR. Questions were asked about ordinances in Holy Cross Township and Wilkin County, MN. It was suggested to bring these documents to the next meeting.
- Gov. Burgum asked if the DNR had experience or case law and history on permitting projects that include multiple river crossings. Mr. Lokkesmoe said projects that include aqueduct features are not common, even nationwide, and the DNR has not worked on projects like that before.
- Council Member Vein asked what size event the DNR used to determine floodplain. Mr. Lokkesmoe said the department uses 100-year flood event. He also noted that a 500-year floodplain is identified and that a floodplain is comprised of a floodway and a fringe area. There was discussion about the floodplain, floodway and fringe zone. Mr. Lokkesmoe noted development in the floodway is prohibited, but there are options in the flood fringe areas within the floodplain.
- Commissioner John Strand asked, via text, if there was a connection with a previous legal issue between the two states and levee height. Mr. Lokkesmoe said the previous dike wars ended in a settlement in federal court that was very detailed. That particular case does not have any bearing on this case.

- Mr. Benson asked if a local ordinance is passed after the project has been agreed upon, how would the project move forward if the local ordinance made it not possible. Mr. Lokkesmoe noted that he was not sure how that situation would be addressed, but there are allowances for some increasing of foot stage in relation to a project. Attorney Norgard noted that spot zoning is typically not allowed. There was interest in having more detailed information from the North Dakota State Water Commission about their permitting sequence.
- Gov. Burgum asked about separating the concept of the diversion location and storing water as to have a discussion about storing water inside the diversion channel as well. Mr. Lokkesmoe said the previous technical group discussed having more water flowing through town would have some internal storage impacts. It was noted that there was no formal documentation of the technical working groups discussions, but a summary could be produced by the members that were part of those discussions.

Questions for Suzanne Jiwani

- Council Member Paulsen asked about the effect building on lots and effects on the floodplain. Ms. Jiwani discussed concerns with developing in the floodplain, creating new floodplain and that the DNR discourages the removal of land from the floodplain. There was discussion about the increase in stage allowed when a project is implemented.

FEMA ACCREDITATION REQUIREMENTS

FEMA head Quarters Engineering Resources Branch Chief David Bascom presented about the agency's work, mapping and flood insurance program.

Presentation about FEMA accreditation Requirements

- Mr. Bascom presented about the National Flood Insurance Program (NFIP). (Slides available) He noted that FEMA relies on participating communities and state-licensed engineers to acknowledge the local conditions and set more stringent standards if a community sees fit. More restrictive local standards would take precedence.
- He also noted that FEMA will provide support to the Task Force as they work toward a solution.
- Design criteria for projects and accreditation include freeboard of three to four feet, embankment protection and stability, settlement and interior drainage considerations. FEMA also works with other federal agencies, like the U.S. Army Corps of Engineers to determine base floods and projects that would protect against that.
- The FEMA 1% flood risk for Fargo and Moorhead is currently based on a report completed in 1971 which determined 29,000 CFS was the flow rate to be used for modeling. The study in 2011 by the Corps was reviewed by FEMA Region 8 and found to meet FEMA standards. The agency determined the study was defensible, detailed, reasonable and appropriate for future updates.
- Mr. Bascom noted executive order 11988 relates to floodplain management. He noted that FEMA isn't responsible for other agencies working through the executive order, but they often work to assist agencies to comply.

- Mr. Bascom noted NFIP design criterion are outlined in 44CFR65.10 for freeboard, closures, embankment protection and stability, settlement, interior drainage). A design from Corp would be accepted.

Questions with Mr. Bascom

- Attorney Norgard asked if the Task Force moved forward with a particular CFS, could FEMA change their mind later and require more protection. Mr. Bascom noted that is difficult for the agency to change quickly. He noted FEMA assesses flood maps for currency every five years, but that does not result in map revisions. Map revisions are based on new hydrological information.
- Council Member Vein asked what gauge and elevation was used for the CFS amounts. Mr. Bascom said the Fargo gauge was used. He noted that any project proposal requires hydrologic modeling because the effects of a project can be dynamic in the floodplain.
- Commissioner Landwehr asked if the Period of Record would be acceptable for designing a project for the purposes of accreditation. Mr. Bascom said yes.
- Commissioner Landwehr asked if FEMA reviewed alternatives to the project. Mr. Bascom said the conditional letter of map revision (CLOMR) request included a review of alternatives but he could not provide details and noted he could follow up on this.
- Mr. Dardis asked for specifics about flood insurance premiums in the FM area. Mr. Bascom was not equipped to answer that and would need to follow up.
- Attorney Norgard asked how many times projects or protection had been decertified by FEMA. Mr. Bascom noted it has happened. Old levees, maintenance issues, erosion or other factors could cause this.
- Mayor Williams asked what height the city should be working to maintain certification. Mr. Bascom noted that is the discussion for the task force, and in in some situations there could be as little as two feet of freeboard if statistical analysis proves it can be accredited.
- Questions were asked about tie backs. Mr. Bascom noted it's important for tie backs not to allow water to get around protection. Attorney Fox asked if there were freeboard requirements beyond tie backs. Mr. Bascom noted that additional materials about this exists.
- Mr. Bascom noted that FEMA only looks at past data for flood mapping and does not project into the future.
- There was discussion about certification of the flood mitigation project around Breckenridge, MN and Wahpeton, ND. FEMA officials noted that it is important to engage all parties early in the certification process. Breckenridge needs a form signed, and Wahpeton is waiting for a submittal from the Corps to move forward with certification.
- Mr. Hertsgaard asked about upstream storage and how that might impact a project. Mr. Ryan Pietramali of FEMA Region 8 noted that the agency has to see something is functional and can operate in perpetuity before it can be considered as part of certification. Mr. Hertsgaard also asked about rainfall and flooding.

- Gov. Dayton inquired the best way to reconcile FEMA and the Corps efforts. Mr. Bascom indicated having decision-makers from both in the same room would be good and for the Task Force members to hold FEMA and Corp accountable for consistency and clear direction as a solution is outlined.

FEMA ACCREDITATION REQUIREMENTS

Minnesota DNR's Suzanne Jiwani, City of Moorhead Engineer Bob Zimmerman and City of Fargo Division Engineer Nathan Boerboom presented.

Presentation about 100-year flood level

- Ms. Jiwani noted the group should look at slight changes that would have impacts on reducing impacts upstream.
- Mr. Zimmerman presented (*Slides available*). He noted that if the group determines a flow to use, it will be used to develop the different flood stage information and project parameters. He noted that two of the largest floods were not included in any analysis so it is highly unlikely that redoing the analysis would result in less CFS.
- Mr. Boerboom presented that designing a project resilient enough to accommodate larger events is advisable. He also noted a project will likely require some combination of upstream retention, levees, dam and diversion channel. He noted the areas of protection included in a map in the presentation.

Questions with Mr. Zimmerman and Mr. Boerboom

- Commissioner Landwehr asked about city limits and amount of development. Mr. Boerboom said most area inside city limits is developed. Council Member Durand asked if Grand Forks and East Grand Forks included rural entities in protection. Council Member Vein said the project achieves 212 year protection and is a ring levee around the cities. He noted that the city, post 1997, restricted development in areas they knew the project would be built but made sure it was high enough to protect above the 100 year event levee.
- Commissioner Strand asked about the inclusion of drain tiling into retention. Mayor Curt Johannsen noted that it's difficult to enforce and restrict the usage or control of drain tiling. He noted it may be a piece of the puzzle but can't be a stand-alone answer. Mr. Pietramali noted that FEMA would need to see an operational plan to incorporate it as protection. Council Member Paulsen noted that there would be no ability to develop on the floodway if areas of drain tile were considered floodway. Commissioner Mongeau noted that is the case with areas in the current project upstream retention area.
- Commissioner Landwehr asked for clarification on aiming for a 100-year or 500-year level of protection. Mr. Zimmerman noted that 500-year protection is not feasible with this project. It was also noted that the Red River Basin Commission recommended urban areas in the valley achieve 500-year protection. There was discussion about the height of freeboard and why it is incorporated.

Discussion about CFS level

- Gov. Burgum asked if there was a gauge level in Fargo if the Period of Record was through 2016. Mr. Zimmerman said some preliminary work had been done and it would

possibly go up from 33,000. Ms. Jiwani also noted that the data is flattening out. There was discussion about the 1826 flood. Gov. Dayton noted that if you increase a project's protection it has increased impacts. Mr. Hertsgaard asked about transferring the flood risk and complying with Minnesota law. Attorney Fox noted that more protection can affect other communities.

- Council Member Paulsen asked how much protection the current plan provides. Mr. Boerboom noted it was designed for 100 year certified protection and larger events would result in more flow through town and into the channel, making a 500-year event possible to fight.
- Gov. Dayton asked Ms. Jiwani, Mr. Zimmerman and Mr. Boerboom if they would be comfortable with a period of record through 2009. They concurred.
- Gov. Burgum asked FEMA if they would use hydrology through 2009 when certifying 0a project. Mr. Bascom confirmed the agency would use the most recent data available, and that would be through 2009.
- Motion was made by Commissioner Berseth that 33,000 CFS based on the current record be utilized as the flow data. Seconded by Commissioner Mongeau. Unanimously approved.

Discussion about spatial area and alternatives

- Mr. Benson noted that nearly 8,000 residential properties are included in area protected by current project which reside outside of incorporated cities. There was discussion about how many of these properties are at risk and protection options used currently. Mayor Johannsen noted that many rural communities in the Red River Valley struggle with flooding.
- Commissioner Berseth asked why the channel goes so far North. Mr. Benson responded that the channel had to get around the Sheyenne River because the Sheyenne River bed was not large enough to handle the flow from the Red and Wild Rice.
- Mr. Hertsgaard asked about incorporating nonstructural options inside the channel. The question was referred to the advisory group in terms of area to be protected. Questions were also asked about channeling more water from the Wild Rice into the Sheyenne Diversion and having two channels, one on the North Dakota side and one on Minnesota side.
- Mr. Zimmerman noted that the previous technical group looked at running up to 37 feet through town.

HOW TO MOVE FORWARD

Discussion about next steps

- Gov. Dayton noted there needs to be more information about alternatives, financial considerations and operational questions. Mr. Benson noted that time for modeling needed to be a consideration as well. Gov. Burgum noted the technical team should focus on feasible alternatives that manage upstream and downstream issues as a primary goal. Discussion about establishing technical advisory group. Commissioner Landwehr noted radically different suggestions may need to be vetted prior to financial

and operational plans are done. Commissioner Landwehr made a motion for governors to appoint co-conveners of a technical advisory committee that will solicit and consider alternatives for meeting flood risk management goals. Council Member Paulsen seconded. Unanimously approved.

- Mr. Dardis asked for information to be presented about the State of North Dakota and tax payers of Cass and Fargo's financial commitment to flood protection.
- Commissioner Mongeau noted that a redesign could be cheaper but may disqualify the project from federal authorization should be thought about by the group.

MEETING CONCLUSION

- Task force members noted their concerns. Council member Paulsen noted he would like to have advisory committee evaluate regulatory side of project including federal authorization. Mr. Hertsgaard noted solution will include many methods. Mayor Williams noted the large number of alternatives and her concern in evaluating all of them. Attorney Norgard would like more information about what the DNR would permit. Attorney Fox noted there have to be changes to the current project and the Wild Rice River is a wild card. Mr. Benson had concerns with upstream retention ideas. Commissioner Steve Jacobson had concerns with a diversion and support of distributed storage. Commissioner Mongeau suggested incorporating a moderator may be helpful. Council Member Vein is glad the technical team can work on the spatial analysis. Mayor Johannsen noted there will be multiple options in an answer. Mr. Dardis applauded the diversity of opinions of the group. Assistant DNR Commissioner Barb Naramore noted the DNR evaluates projects as a package, and the difficulty of isolating one element for approval. She did commit the agency to work alongside the task force. Commissioner Landwehr noted that there will be a lot of work to evaluate all options, and confirmed the future meeting dates of Nov. 15, Nov. 29, Dec. 13 and calls on Nov. 6, and Dec. 12.
- Gov. Burgum noted items for the next agenda should include presentations on financing, public private partnerships and having presentations on retention basin-wide. In addition, having more information about flood insurance.

The meeting adjourned at 3:41 p.m.