

June 12, 2011

Headquarters, U.S. Army Corps of Engineers
ATTN: CECW-P (IP)
7701 Telegraph Road
Alexandria, VA 22315-3860.

Dear U.S. Army Corps of Engineers:

I am writing to you in opposition to the July 2011 FEIS for the Locally Preferred Plan (ND 20K Diversion with storage and staging) for flood control in the Red River Valley. This plan presents many concerns regarding negative effects on the residents, farmers, and economy of the region. Because my comments for the SDEIS were not adequately addressed I am expanding on them for this comment period.

This plan has been developed exclusively for the benefit of a small portion of the region and does not include benefits for, nor does it consider the economic impacts to not only the local region but to the whole Red River valley. If an event as large as the FEIS occurs, Fargo will not be protected, and will lose a large number of its customers, workers, and neighbors and will suffer significant economic duress as a result of those losses. Instead of a singular localized plan for a 500 year event, a more regional plan protecting the economy of the region should have been explored.

While many alternatives were examined early on, there is no clear evidence that the current plan was studied comprehensively, and especially not studied in conjunction with the current conditions in the local area. I am basing this on the Appendix O and Appendix U elements of the FEIS. For example, while upstream storage as proposed by the Red River Basin Coalition was studied when the plan was the ND35 plan, there is no reason to infer and no evidence that this was examined again when the plan was changed recently to be a ND20K. What would the affect on the downstream impacts be with RRBC plus the 20K plan? It should be possible to combine the two and eliminate the need for the upstream storage:

- It's true that as SDEIS section 3.4.6.2 states 1.6' of reduction doesn't solve Fargo-Moorhead's problem as a standalone item. But, if the impact of the 35K at Climax was Climax 25.4", it is safe to assume that a 18" reduction has a pretty good chance of reducing that impact to zero, as $20K/35K * 25.4 = 14.51"$, which is well below 18". Since there already is a portion of this reduction in place (North Ottowa project by Campbell, MN 18000af), then it is reasonable to consider that this plan may work as part of the solution, with an added benefit of a much smaller cost. Representative Colin Peterson is in favor of this plan and it already has 18,000af of the 20 percent plan implemented and another similar part due this year near Barnesville MN.
- The Wahpeton daily news (6/7/2011) reports that Mayor Cliff Barth has proposed a series of storage areas that would replace the designs storage at a lower cost. This proposed storage has also not been included in the hydrology and the plan and would protect the whole valley rather than just Fargo as this plan does.

The plan uses artificially high flood plain numbers. FEMA's actuaries studied recent events and raised the flood plain by 1 foot to just over 39 feet, not the 42 proposed by this study. They have to pay out if they are wrong and are trained professionals, yet they have not adopted the same 100 year impact of 42 feet. *(In a valley as flat as this one, this discrepancy of 3' is significant and implies a level of volume increase that is staggering and if that much water occurs in Fargo, the entire valley is damaged beyond measure. From southern to northern state border there will be little left.)* SDEIS Section 2.3.1 and Appendix A are ignoring historical data in order to calculate a much higher flood plain and risk, namely to achieve a flood plain of 42—this information was carried forward into the FEIS. This higher flood plain artificially increases the project's cost benefit ratio from the initial value of about .97 to the current projected value of over 2.0.

- Raising this flood plain by using the heavily weighted recent events is a violation of statistical correctness. (e.g. The last three tosses of a coin, while they may be heads, doesn't change the .50 probability of the coin landing either head or tails, it still is .50) This calculation does just that. It raises the weight of the recent events in order to justify a new higher flood level and cost/benefit. All the historical data for flooding in the valley needs to be considered when determining the flood plain, as it appears FEMA is doing when arriving at the much lower number.
- Additionally, this raising of the flood plain will affect the entire valley, and will result in losses by those living from the start of the Red River Valley to the Canadian border. It should not be taken lightly--and should be considered in both the study costs and takings. The most obvious impact is the loss of ability to expand and grow. Cities from Wahpeton to Grand Forks (and even Pembina) will now be losing many areas to grow as all new proposed flood plain (+3 feet over FEMA) cannot be developed. All valley structures not included inside the study area will have to now buy flood insurance when they didn't before—for the whole valley (if the ND35 could cause a rise to the Canadian border, it is safe to assume that it's so flat that raising the flood plain in Fargo by several feet would impact the whole area as well).

The cost benefits ratio is based on annual costs if no action plan is over \$194.8 million (Appendix U 1.7.1 Problems) and this is no longer an accurate baseline.

Excerpted from FEIS "Section 2.3.4 of the FEIS and sections 5, 7, and 8 of Appendix O of the FEIS describe the no action alternative. The no action alternative does not meet any of the planning objectives. Although Fargo-Moorhead have been successful fighting floods in recent years, it is probable that emergency measures will not always be successful. Failure of emergency measures could result in significant loss of property, and the loss of life will likely also be high given the number of people who choose to fight the flood instead of evacuate. In addition, Fargo-Moorhead spends a significant amount of time, effort, and money in the near-annual flood fights, resources that could be better spent elsewhere with a project in place ".

- This no action baseline number of 194 million has remained constant since early in the project through FEIS (see the presentations from June 2010), yet local governments in Cass County, Fargo and Moorhead have performed extensive mitigation which provides protection to a much greater flood level. Moorhead's sandbagging efforts for 2011 were reduced by 50% by local buyouts and mitigations-and their project plan A-B-C states that they will be protected to the new FEMA 100 level by 2013. (In-Forum article dated 2/20/2011 & [http://www.fargo-moorhead.com/pressroom/pressroom.cfm?id=133&newsid=133&newsdate=20110220](#)). The same planning and mitigation is in process for Fargo with a similar completion time. This mitigation reduces annual costs and results in near zero impact in a FEMA 100 year event.

Still, the no action plan reflects the same values as it did in the June 2010. For the sake of argument if the amount of effort to protect to 42 is reduced to zero, it is safe to say that "some" reduction on the damages is warranted, yet none is shown. ***The Corps charter requires the plan to be comprehensive and in the context of other efforts, both completed and planned, therefore I would expect that the cost benefit numbers would reflect the mitigations already done and include the plans announced by both regional cities to protect to 42.5 (Fargo Forum dated 5/17/2011) with no sandbagging. This would reduce the cost of the no action plan and would potentially reduce the need for a project as large as planned.***

When will the numbers be recalculated to match the current risk and future plans of the metro region, as a whole?

The storage area is not needed if the rest of the mitigation (planned and already performed) in the region is included in the study as described above.

If the FEIS is implemented as presented, without including the current state of protections already completed, the impacts are costly in terms of community and money and the designed plan cannot be executed to meet the plan objectives as is shown by the following:

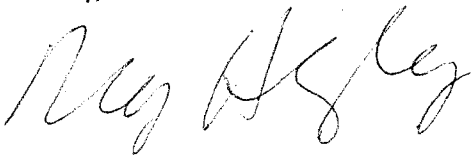
- SDEIS Section 3.7.2 and FEIS describe the newly added storage area of having an upper elevation limit of 922, and SDEIS section 3.7.2 says that this level will be achieved in a 1% event. This means that the spillway will be activated at any level over 1%. This implies that the water at this point will now be flowing across the land into the Sheyenne and flooding areas that would not be impacted without the dam and spillway and is largely outside the study area. This overflow will be able to return to the channel unimpeded and the increased flow via the diversion channel will increase the levels downstream.
- This section also describes how the Sheyenne river water and overland water will flow into the diversion channel below the storage area—and cannot be mitigated by the storage area which will result in increases downstream as the flow is unimpeded to the end of the diversion channel.
- FEIS asserts that downstream impacts are to be mitigated by drawing off the flow from the Red River and Wild Rice River during the event into an upstream storage area. Managing the storage area requires calculations which are essentially impossible to perform:
 - The storage management requires the use of water flow requiring knowledge of future events beyond the accuracy of weather and flood forecasts. Forecasts and flood history such as 2009 resulted in wild swings of the forecast crests in any period longer than 24 hours and were non deterministic beyond 3 days. Given this inability to forecast the peak and the rise in 2009 and again in 2010, there is little certitude that downstream impacts can be managed with this structure which must function over the period of up to months in a severe event.
 - Weather is the biggest wild card in predicting the speed, duration and peak of any flood, and recent events results have shown forecasts off by at least several feet—and that varied by feet each day. This leaves no confidence that the hold off of flows can predict and mitigate downstream impacts as required by US treaties with Canada.
- Local leaders from Richland County, Wilkin County, and county commissions from both of these, plus the community of Kindred, ND and both the Kindred School Districts and Richland County School District

44 oppose the current plan due to its negative impacts. There is not broad support for the project in the area; in fact both Moorhead and West Fargo (plan sponsors) have expressed reservations about the plan, its location and costs.

Thank you for the opportunity to comment on this project. This project is of unprecedented size and scope in the valley, and smaller diversions like the Wahpeton diversion have been shown to impact those living downstream of it, and it is only several miles long, inferring this will have worse negative effects. This plan is an order of magnitude larger and will result in complex operational challenges that will impact the valley in inconceivable ways.

Finally, the study is still incomplete at this time, there are admissions of impacts outside the study area and the study needs to be continued until impacts are known, lest the local sponsors be overrun with costs for mitigation and plan alterations.

Sincerely,

A handwritten signature in cursive script, appearing to read "Ray Holzhey".

Ray Holzhey