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MEMORANDUM FOR RECORD

22 April 2013

SUBJECT: Teleconference with Corps and Mississippi Headwaters Board, 18-Apr-2013; Regarding Study Request for Mississippi River Flooding near Aitkin, MN and Big Sandy Reservoir

ATTENDEES:

Mississippi Headwaters Board: Brian Napstad, Davin Tinquist, Randy McCarty, John Welle
Corps of Engineers, St. Paul District: Craig Evans, Steve Clark

NOTES:

1. This teleconference was held on 18 April 2013. The call was set up in response to a 4 March 2013 letter from the Mississippi Headwaters Board (MHB) to Colonel Michael Price. The letter requested a meeting to discuss potential studies of flood issues in the vicinity of Aitkin, MN and Big Sandy Reservoir.

2. Existing problems: John Welle and other MHB participants described the following problems in the Mississippi River basin near Aitkin, MN and on Big Sandy and Pokegama lakes:

- The Summer 2012 flood was the first large flood event since the existing Aitkin Diversion project was built. This flood produced the highest stages since 1950 and damaged approximately 250 structures around Big Sandy Lake as well as several township roads. (The Sherriff has detailed records of damages.)
- Flooding at Aitkin and Big Sandy is interconnected. When the water is high at Aitkin, less water can be released from Big Sandy. In the 2012 flood, Big Sandy had 8,000-9,000 cfs coming in from its watershed and only 1,000 cfs could be released.
- The existing Aitkin Diversion has very little elevation drop from its inlet to its outlet—it's very flat. The outlet elevation is constrained by the high point at Pine Knoll.
- A Section 205 study was started for Aitkin, MN; the initial appraisal report was completed in November 2004 and the study was terminated in January 2011. The study concluded that only nonstructural measures in Aitkin had the potential for economic justification. The MHB participants believe that the study area should be expanded to include benefits on Big Sandy Lake and Pokegama Lake before concluding that none of the structural alternatives would be economically justified.

3. Potential solutions and/or questions to be answered:

- We need to look at the restriction at Pine Knoll. The Sec 205 report estimated a potential to lower the Mississippi River at Sandy Lake by 1.3 feet and lower Pokegama by 0.88 feet for a 25-year event. During the 2012 event, the last 1 foot of stage on Big Sandy caused 50% of the damages.
- We need to acknowledge and quantify the potential downstream impacts of removing the constriction at Pine Knoll.
- Is the outlet on Big Sandy the best it can be?

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- Is there anything that can be done to reduce inflows to Big Sandy?
- Investigate potential inflows to the Mississippi basin from the Lake Superior basin that occurred in 2012. (2012 event was approximately a 50-year event??)
- MHB participants recognize that large events will still be a problem at Aitkin and Big Sandy, but they still want to reduce the frequency, magnitude and length if possible.

4. Corps Planning process: We discussed the “General Planning Process” handout that was sent prior to the meeting. Key points are as follows:

- There are two options for Corps studies: Continuing Authorities Program, or CAP (Section 205) and Specifically Authorized. Based on the previous Sec 205, the Corps believes that the desired solution would likely exceed the project cost limits for Section 205; therefore, the Corps recommends pursuing a Specifically Authorized study.
- Congress must authorize studies and construction projects before the Corps can start them. We have authority to study the Upper Mississippi river, but we would need funding. We need to do recon and feasibility studies to determine what construction (if any) we could recommend to Congress for them to authorize.
- Congress must also provide funds to conduct studies. The current Congress has not been willing to add funds for specific projects. The MHB may talk with its Congressional delegation about the need for a reconnaissance study and the need for \$100,000 to \$150,000 to complete a reconnaissance study. Note: As part of the Federal Administration, the Corps cannot approach Congress to advocate for studies or projects.
- The Corps can request to have a reconnaissance study included in the President’s Budget. The Administration is currently assembling requests for the FY 2015 budget. St. Paul District has enough information to request a study based on the MHB’s letter and this phone call, and Craig Evans will start that process immediately. The Corps is currently unable to start any new studies due to Congressional appropriations language, but we can go through the budget process hoping restrictions will be lifted by FY 2015. The Corps budget process prioritizes new studies based on several factors, and it is unlikely that this particular request would be ranked very high.
- Reconnaissance studies are conducted at 100% Federal cost. The primary purposes of the study are 1) to document the problem, 2) show that there is likely to be a solution that is in the Federal interest, i.e. economically justified for federal implementation, and 3) identify a non-federal sponsor for a cost-shared feasibility study.
- Recon studies typically do not develop new information. They rely on existing information and only have to make a case that further study is warranted. In this case, we could use the existing info from the Sec 205 and Reservoir Operation Plan Evaluation (ROPE) studies and supplement with data from the 2012 flood.
- Feasibility studies are cost-shared 50/50 with a non-federal sponsor. MHB probably would not have all of the taxing and other legal authority needed to serve as the sponsor, but a County would qualify.

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- The goal of a feasibility study would be to identify an optimized project that could be recommended to Congress for implementation. Projects must produce benefits in excess of costs in order to be recommended. The structural projects considered in the Sec 205 report appeared to have benefits far less than costs; therefore they were not deemed economically justified. MHB needs to understand that there is a strong possibility that no project will be found that has a high enough benefit to cost ratio to be authorized and funded for construction.

5. Next steps:

- Corps will request a new reconnaissance study through the normal Federal budgeting process. The earliest that funding could be received is October 2014, but that is unlikely.
- MHB may talk with their Congressional delegation to request funding for a new reconnaissance study.
- MHB should start thinking about potential solutions that could be considered in the Recon study. In order to be successful, the Recon study must make a strong case that spending additional Federal funds would lead to a federal project that produced significant national economic benefits.

6. Please contact Craig Evans, Chief, Plan Formulation Section, 651-290-5594 regarding this memorandum.