

## DEPARTMENT OF THE ARMY

CORPS OF ENGINEERS, OMAHA DISTRICT 106 SOUTH 15<sup>TH</sup> STREET OMAHA NE 68102-1618

February 21, 2006

Civil Works Branch

Lake Pelican Water Project District P.O. Box 172 Watertown, SD 57201

Gentlemen:

Thank you for the opportunity to review the 'Comprehensive Water Resource Management Plan – Big Sioux River Headwaters Study Area – Technical Report' dated January 2003, that was provided by your office. This review was performed in conjunction with our ongoing General Reevaluation Report and Environmental Impact Statement (GRR/EIS) for the Upper Big Sioux River Flood Control Project as part of the development of alternatives to reduce major flooding to the City of Watertown and surrounding area.

Upon completion of the review, two major issues of serious concern were noted in the report; 1) Lake Kampeska was not modeled even though it's a major factor in controlling floods through Watertown and, 2) lack of detailed cost data for the real estate, construction, and operation and maintenance of the project. Without this detailed information, it will be very difficult to make a reasonable comparison to other alternatives. All comments and concerns pertaining to the technical report are listed below.

- Page 14. 1997 peak instantaneous flow at the near Watertown USGS gage was 7,800 cfs not 5,800 cfs.
- Page 14. It should be noted the the1997 flood event was only a 35-year event for the instantaneous peak discharge at the near Watertown gage based on the 2000 Reevaluation Study. However, the 15-day total runoff volume for that same gage was slightly greater than a 100-year event based on the Corps' 1994 Feasibility Study 'Flood Control for Watertown and Vicinity'.
- 3. Page 16. Why was the 1997 flood event not used for calibration of the HEC-HMS model since it was the flood of record?
- 4. Page 18. For the 14 locations where the existing culverts will be completely restricted and flow allowed to pond and flow over into the adjacent watershed, how will ponded water below the natural divide be removed?



- 5. What are the estimated costs to build and configure all the necessary road raises, small dams, culvert restrictions, and culvert installations?
- 6. What are the estimated costs for Operation and Maintenance of all the sites?
- 7. What are the cost of real estate easements for incremental increase in property to be flooded by the construction of small dams and constricting flow through existing culverts?
- 8. Since the lowering of flows is dependent upon the altering of road crossings, restricting or adding culverts, and adding small dams, which will require an extensive operation and maintenance program to retain its effectiveness, will the Federal Emergency Management Agency (FEMA) certify a reduction in the 100-year floodplain for the City of Watertown?
- Page 31. Not modeling the interaction with Lake Kampeska is a serious flaw in the analysis since Lake Kampeska stage is the major factor controlling flood flows through Watertown.

If you have any questions, need clarification, or would like to discuss any of the comments, please do not hesitate to call me at (402)-221-3666.

Sincerely,

Edward Haffke, P.E.

Watertown GRR/EIS Project Manager