



Upper  
Mississippi River  
Basin Association

ILLINOIS. IOWA. MINNESOTA. MISSOURI. WISCONSIN

May 25, 1995

Colonel James T. Scott  
District Engineer  
St. Paul District  
U.S. Army Corps of Engineers  
190 Fifth Street East  
St. Paul, Minnesota 55101-1638

Dear Colonel Scott:

This letter provides the Upper Mississippi River Basin Association's comments on the Army Corps of Engineers' March 1995 draft *Floodplain Management Assessment* (FPMA). We realize that this letter arrives somewhat after your May 12 comment deadline. Unfortunately, the review time provided was simply not adequate for each of our member states to develop its own position on the report and then for the five states to articulate their consensus thoughts. However, by virtue of the fact that the Association's comments are conceptual in nature, we believe they remain timely as you finalize your report and decision-makers in Congress and elsewhere begin to consider how it might best be utilized.

The states recognize that the Corps faced significant challenges in undertaking the FPMA. The Congressional directive was to "conduct comprehensive, system-wide studies to evaluate the flood control and flood plain management needs of the Upper Mississippi and Lower Missouri Rivers and their tributaries that were flooded in 1993." This directive was both broad and ambitious, while the time and money available to accomplish the work were quite limited. The systemic approach specified in the directive represents a departure from typical Corps studies, which are most often linked to evaluating individual projects.

The states are also keenly aware that the FPMA was a single agency study in which other federal and state agencies were observers, not partners. Nothing in the Congressional directive precluded the Corps' approach, and logistical constraints may have even demanded it. Yet it must also be recognized that a comprehensive floodplain management assessment for the Upper Mississippi and Lower Missouri Rivers and their major tributaries cannot be adequately accomplished by any single agency.

Despite this fundamental disjuncture between FPMA's stated objectives and the process employed for undertaking the effort, the Association's member states believe

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that the assessment has made several valuable contributions. The report's strengths include the following:

- The FPMA demonstrates the importance of systemic analysis. The draft report's findings regarding potential structural modifications illustrate that there are no easy solutions and that site-specific measures must be considered in light of their cumulative systemic impacts. As elected officials and river managers consider potential changes to individual components of that system, this is a particularly important lesson to bear in mind. Unfortunately, while the importance of systemic analysis is implicit in many of the Corps' specific technical findings, the draft report is not as effective as it could be in highlighting this cross-cutting conclusion for the non-technical reader.
- The assessment also served to demonstrate and advance technology in important areas. Specifically, the FPMA illustrates the power of UNET modeling and digital mapping as tools for systemic analysis. State floodplain managers in the basin have long called for development of an unsteady state hydraulic model for the region. While the Corps' work did not test the UNET model exhaustively, it did provide some good case studies on which further evaluation can build.
- By exploring a variety of "what if" questions, the Corps has attempted to provide insights into a range of structural and policy alternatives. The Association is not in a position to judge the technical merits of the analysis, nor do the states necessarily agree entirely with the alternatives evaluated or the conclusions drawn. However, the Association members do believe strongly that the sound assessment of potentially viable alternatives is critical to good floodplain management decisions.
- The draft report also includes some specific findings that are useful in addressing public concerns and misconceptions regarding the 1993 flood. Of particular note is the Corps' finding that "approximately 80 percent of 1993 flood damages related to crops were not caused by overbank flooding and would not have been affected by any projects or changes in floodplain management policies...." Another significant insight is that levee modifications would not necessarily affect flood stages in the manner one might expect. For example, the assessment concludes that levee setbacks may actually raise flood stages downstream. These types of findings are particularly significant precisely because they are somewhat counter intuitive. However, the FPMA fails to clarify that its findings with regard to the impacts of raising or lowering levees in the 1993 flood event would likely differ dramatically if the modifications were modeled for more frequent, lesser magnitude floods. By explaining and publicizing its findings, the FPMA can make a valuable contribution to the continuing discussions surrounding the future of floodplain management on the Upper Mississippi and Lower Missouri Rivers.

While the Association's member states are providing their technical comments to the Corps directly, there are some more general observations regarding the FPMA's limitations that the states wish to offer jointly:

- The draft report falls short of being a floodplain management assessment. It is instead largely an evaluation of selected flood control alternatives. While the report includes some findings regarding policy options, there is a severe paucity of technical and analytical justification for these conclusions relative to that which is provided for the structural flood control findings. This is not surprising to the states, given that the assessment was a single agency effort. A true floodplain management assessment would have required a genuine partnership effort involving all disciplines relevant to floodplain management at the federal, state, and local levels.
- While the FPMA directive was to study the area that was flooded in 1993, the Corps chose to limit modeling and analysis to that single, unusual flood event. Although the 1993 flood was undeniably a major event with tremendous human consequences, it is not the only type of event upon which floodplain management decisions should be based. Policy makers and managers must also consider the greater frequency, lower stage floods. The Corps' analysis of various structural and policy alternatives would have been far more useful if it included evaluation of these options under more routine flood conditions.
- In drafting the report, the Corps was not always as effective and accurate as it might have been in conveying the meaning of its findings. As we have already noted, certain fundamental conclusions, such as the importance of systemic analysis, are implicit in specific findings but are not stated explicitly. In other instances, the language used to summarize quantitative findings introduced judgments that are not justified. For example, the Rock Island District concludes that floodfighting generally had a "minor to moderate impact on river levels" in the district. However, the figures cited on p. 9-40 include impacts of 2.7 feet at Quincy, Illinois and 2.9 feet at Hannibal, Missouri. In the view of state floodplain managers, these impacts should by no means be described as minor or moderate in the context of the 1993 flood. Given the high level of interest in the FPMA and the potential for portions of it to be taken out of context, it is particularly important that the report be as readable, clear, and accurate as possible.
- The draft report poses the question of whether there are inconsistencies among the states in their administration of floodplain regulations. The states are troubled to the extent that this question and the Corps' analysis of state programs imply that there is inherent virtue in consistency. From the

perspective of the state floodplain managers, it is far more important that states and localities are effective in regulating floodplain development than that they are consistent. The FPMA, however, did not evaluate which state and local programs, regulations, and approaches were most effective in the 1993 flood. Data on repetitive loss, compliance rates, community rating system participation, and other important measures are all readily available and would have permitted the Corps to undertake a more meaningful comparative analysis. This is the type of information that decision-makers at all levels of government need to optimize their approach to floodplain regulation. The absence of such analysis further demonstrates the need for collaborative interagency approaches to addressing floodplain management issues.

The member states of the Association believe strongly that the Corps' FPMA report should not become another study that sits on the shelf. The Corps performed valuable analyses that should serve to inform future efforts and decisions. Toward that end, the Association offers the following observations regarding next steps that might be taken:

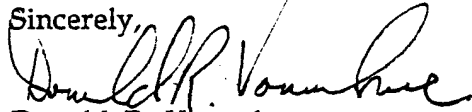
- The draft report contains a great deal of valuable information, but it is not an optimal vehicle for conveying its most important findings and conclusions to a non-technical audience. In preparing to submit the report to Congress, the Corps may wish to consider an enhanced executive summary or a separately bound summary document. Such a document would be helpful not only to members of Congress and their staffs, but also to the wide range of others outside of the professional floodplain management community who are interested in the FPMA.
- While the FPMA lacked the partnership approach necessary to meaningfully assess the full range of issues associated with floodplain management, the states believe that the Corps' work can become a starting point for future multi-agency partnerships. The report has certainly highlighted a number of issues that merit further consideration by federal, state, and local entities. For example, the Corps' work with UNET represents a good first step and should be used as a basis for continuing dialogue and work among the states and the federal agencies on unsteady state modeling. Refining the model as well as resolving issues such as how and where it should be maintained will require a joint effort. It is possible that the Association's State Floodplain Management Work Group could serve as a means for facilitating some state/federal cooperative efforts.
- Because the FPMA was a single agency effort, the Corps may wish to consider taking special steps to communicate with its sister federal agencies. There are a number of findings as well as specific technical products that are quite relevant to the work of other federal agencies, such as the Federal Emergency Management Agency's mapping program. If the FPMA is simply forwarded to Congress, it will not have its broadest possible impact at the federal level.

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A targeted outreach effort by the Corps' leadership to their counterparts in other federal agencies could go a long way in this regard.

Thank you for the opportunity to comment. We hope the Association's observations are helpful as you prepare your final report and communicate your findings to Congress and others. As always, please do not hesitate to contact the Association staff if you have questions or we can be of assistance.

Sincerely,

A handwritten signature in cursive script, appearing to read "Donald R. Vonnahme". The signature is written in dark ink and is positioned above the printed name.

Donald R. Vonnahme  
Chair