

UPPER MISSISSIPPI RIVER SYSTEM FLOW FREQUENCY STUDY
(Upper Mississippi, Lower Missouri, & Illinois Rivers)
Citizens' Public Involvement Group Meeting

Final Minutes (Approved December 1, 1999)

1. The Citizens' Public Involvement (P.I.) Group held its third meeting on April 28, 1999, in St. Louis, Missouri. A meeting agenda is attached. The minutes below are a summary of the discussions that occurred during the meeting and are not verbatim.
2. The meeting began with Chairperson Paul Soyke (Corps of Engineers, Rock Island District) asking attendees to introduce themselves. An attendance list is attached.
3. The correction was made to the November 17, 1998 minutes number 12.1. from "SK Nanda said that he and Dave would talk and that the Corps would pay for such an expert." to "SK Nanda will discuss with Dave to determine if the Corps of Engineers would pay for an expert." The corrected minutes were approved and finalized.
4. In response to the unanswered November 17, 1998 meeting question, we will keep the abbreviated name of UPPER MISSISSIPPI RIVER SYSTEM FLOW FREQUENCY STUDY, with the rest of the title to read in parentheses (Upper Mississippi, Lower Missouri, & Illinois Rivers).
5. Discussion of independent technical expert issue/charter.
 - a. David McMurray reported on the letter asking for an independent specialist to advise the group on the assumptions made in the model on its relative impacts, flood frequency and other impacts.
 - b. Legally the Corps of Engineers can not hire someone who represents another person's interest. But the Corps is providing an expert from the Corps, Arlen Feldman, and has drafted a charter for his participation. Arlen is the Chief of the Research Division at the Corps of Engineers Hydrologic Engineering Center in Davis, California.
 - c. Charter for Arlen Feldman was passed out and approved. (See attached charter.) Bill Lay said that they needed someone to help them with the wording on proposals, as well as content to what would be reasonable and acceptable. He would also like to have studies that will help solve certain problems identified. Arlen said that he was comfortable helping to identify items and solutions to resolve problems. Paul added the following sentence to the Charter at the group's request: "Provide advice to the group on studies that might be required to address the group's issues." David McMurray asked Arlen if he was comfortable playing the devil's advocate, to which Arlen replied that he was, and that he was open to pursue any problems that might arise.
6. Arlen Feldman presented an over view of the study. These are some of the comments, questions, and answers that accompanied that presentation. (See attached packet of slides that were the basis for the information received.)

- a. There was considerable discussion relating to the historical flows. Arlen pointed out that we need an unchanging set of measured flows as a basis for the model. We can then decide what the underlying statistics are.
 - b. There were questions on the sensitivity to the assumptions and the rating curves. The Technical Advisory Group has varying opinions on the methods and estimates. We consider their opinions. There will be confidence bands around the curves.
 - c. There was concern expressed on the policy implications that might result from this study. It is critical to have the best technical data.
 - d. There was a question about peak flows. The study will use annual peaks for the natural condition.
 - e. There was a question on how local levees will be considered and how much data is available. Arlen said that the study will use available data and assumptions on failures; they will be based on historical information, where it is available.
 - f. It is important to get information on the height and probable failure point of private levees. The aerial photos should show all of the levees. The group expressed concern that elevation data on many private levees were not available.
 - g. The study assumptions are critical to the results. Questions were asked about the assumptions and when they would be made. Arlen answered that we do not have a good answer yet. The best guess is that in September the cross sections will be done and in December the aerial photos will be complete with topography.
 - h. SK Nanda came into the meeting and expanded as follows: "We are behind in the study and we are not yet fully funded. What distribution statistics are to be used, etc. In January 2000 we will decide which method to use, Log Normal or the LP3. The aerial photographs will be completed by December 1999 which will include all levees, Federal and private. This information will be incorporated into the hydrological model. The topography, local input, etc., will be gathered after March 2000. With this information we will see where the water level is when the levees fail. For private levees we depend on how the conditions worked in the past. We are still working on what our assumptions are as to when to fail the levee."
 - i. Concern was expressed about the accuracy of topography. SK Nanda responded: "The accuracy we will maintain is in inches. Data should be fairly accurate. Aerials taken after snowmelt and before spring flooding maintain data within .6 foot accuracy. 90% of the time we should be within a foot."
7. There is a need to discuss public input for the study process. Paul Soyke asked that for the next meeting that the P.I. Group members think about what kind of Public Meeting format we wish to pursue. Different formats will generate different types of outcomes. We need to educate the public as well as get the public's input. What types of meetings should we plan? Formal, workshops, open houses, what will be the most beneficial? The Corps of Engineers will be sending out information to the P.I. Group, then the group could send out a survey and forward the results to us. The public meeting is currently scheduled for the summer of 2000. We will present the public meeting format at the November 1999 meeting.
 8. April 29th Report to Task Force: Paul Soyke led the discussion; recommendations from the group are as follows:

- a. What should we recommend about the failure issues? Should we ask for information by mail, use news media? We will mail out this information by the end of summer. We need to know where failure of levees occurred and in what levee districts.
 - b. We should get a letter to landowners and local offices asking them to come to meetings or to send us the information about levee elevations and failures.
 - c. We need to open the channels of communication by being accessible to the county offices and by use of the Districts websites.
 - d. Questions that we need to ask: What elevations are the levees, and where does the levee fail? How does a levee fail? If it overtops is that failure? If it breaches is that failure?
 - e. We need a list of variables that go into the model. We need to know what agencies and regulations are involved and the effects of those regulations on the model.
9. The following was agreed to as the presentation to the Task Force:
- a. Added to Technical Advisor Charter "Provide advice to the Public Involvement Group on studies that might be required to address the group's issues."
 - b. Need to be able to explain the trends, if any, and the cause of trends.
 - c. By the next meeting, need to understand the assumptions and the impact of these assumptions.
 - d. The distribution is a critical assumption and the impact of that assumption should be shown.
 - e. The final documents need to show the uncertainty bands.
 - f. The group was concerned with the assumptions to be made on levee overtopping. We will be working with the group and with the districts to identify the issues and get data on private levees.
 - g. Need a list of the variables with sensitivity and accuracy.
 - h. Looking at how various agencies will use the results and the impacts.
 - i. Working on designing public meetings.
10. Paul introduced Dennis Hamilton, who is the new project manager for the study. SK Nanda introduced Earl Eiker, the Chief of Hydrology in Corps HQ.
11. The agenda for the next meeting will include discussion about assumption factors, failure of levee overtopping, and the public involvement meeting process. As usual, the agenda will be submitted to the members for their comments.
12. The next Public Involvement Group meeting proposed agenda and format will be sent to all group members along with the meeting announcement. The next meeting is tentatively set for November 1999.