DEPARTMENT OF THE ARMY
OFFICE OF THE CHIEF OF ENGINEERS
WASHINGTON, D.C. 20314-1000

REPLY TO
ATTENTION OF:

8 DEC 1986

DAEN-CWP-G

MEMORANDUM FOR THE ASSISTANT SECRETARY OF THE ARMY (CIVIL WORKS)

SUBJECT: Implementation Plan for Risk Analysis in Water Resources Planning - INFORMATION MEMORANDUM

1. Purpose: I am responding to your memorandum of 3 November 1986, in which you ask for a progress report on the implementation actions that have been taken with respect to the incorporation of risk analysis in water resources planning. Our program consists of the three elements that you mentioned in your letter: (1) training, (2) research, and (3) field guidance.

2. Discussion:

a. The training program is planned to evolve from a series of five workshops this fiscal year to a formal training course that is administered through the Corps Prospect Training Program conducted by the Huntsville training division. The purpose of the first round of workshops will be to orient and familiarize Corps mid-level managers with the purposes and concepts of risk analysis, and especially to demonstrate how risk analyses can assist in generating information useful in planning and decision processes. Mid-level managers are targeted because they have traditionally been considered the pivotal point for change in the Corps, and they will be in a position to promote the ideas and procedures associated with risk analysis. A copy of the workshop rationale and draft agenda is attached (Attachment A) for your consideration.

b. The research program for risk analysis in planning has been formulated and has undergone intensive scrutiny at several levels of review. This included setting the relative priorities for initiation of each work unit and allocating a budget for the entire risk research program. Budget allocations have been made for four risk related work units in FY 87 and five work units in FY 88, at funding levels of two hundred and twenty thousand dollars and three hundred fifty thousand dollars. These work units include risk concepts in navigation and in flood control planning, an important work unit on display and communication of risk information, and others. With regard to risk research on engineering and environmental criteria, a work unit has been proposed to start in FY 89. A summary of the Risk Research Program is provided as Attachment B.

c. Finally, the program for issuing field guidance has been initiated with a draft Engineering Circular (Attachment C) on "Risk Analysis in Planning," which provides general preliminary guidance for the application of risk and uncertainty analyses in planning. The EC also directs planners, as an initial analysis step, to conduct and display additional sensitivity analyses on assumptions and parameters which are critical to the recommendation made in feasibility reports. Values of assumptions and parameters should be taken to the point where the recommendation would be changed or the value becomes unreasonable, whichever occurs first. I expect that, given the normal review periods inherent in the process, the draft EC would become final about mid-February 1987.

d. Subsequent specific and problem-oriented guidance will follow as a result of our research, case studies, and FOA feedback from the workshops and training courses. Because I believe our follow-on guidance should be developed to the point where it will be implementable by the field, a list of specific subject content and a schedule of releases would not now be especially informative. The general subject outlines are contained in the attached description of the research program.

e. I hope that this three-part plan fulfills your expectations regarding the program that you envision to incorporate risk analysis in planning.

FOR THE CHIEF OF ENGINEERS:

H. J. HATCH
Major General, USA
Director of Civil Works

Attachments

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Typed by Phyllis Brown