

2 January 1997

Re: NEPA Call-In Technical Inquiry 0011 - Standard Measure of Flood Hazards

Dear NEPA Call-In User:

This letter is in response to your November 22, 1996 request for a definition and categorization of floodplain hazards. You stated GSA is revisiting its floodplain location policy, and you would like a "standard" accepted measure of floods or flood hazards if available. Specifically, you are looking for a "Richter-type" earthquake scale for floods or flood hazards.

NEPA Call-In contacted Mr. Jimmy Baggett, Chief, Hydrology Department, U.S. Army Corps of Engineers, Fort Worth District, (817) 978-2054. Mr. Baggett stated the Corps of Engineers establishes 100 and 500 year flood frequency determinations for the Federal Emergency Management Agency (FEMA). He further stated he did not know of a "Richter-type" scale for floods and flood hazards, but the standards are established by FEMA and suggested we contact them.

We contacted Mr. Jack Quarles, Civil Engineer, FEMA, Denton, TX, (817) 898-5156. Mr. Quarles stated FEMA uses Title 44 Code of Federal Regulations (CFR), Chapter 1, "Federal Emergency Management Agency," the standard for determining flood hazards for definition and categorization of flood plains. He stated Title 44 CFR Part 59, "General Provisions" (enclosed), contains definitions for floods and flood hazards, and Title 44 CFR Part 64, "Communities Eligible for the Sale of Insurance" (enclosed), defines flood hazard designation symbols. Title 44 CFR Part 65, "Identification and Mapping of Special Hazard Areas" (enclosed), outlines the necessary steps to revise special hazard areas, base flood elevation determinations, and floodways. Mr. Quarles further stated "Guidelines and Study Specifications for Study Contractors," January 1995 (enclosed), was developed by FEMA to be used along with Title 44 CFR Chapter 1 for technical guidance. He stated there is no "Richter-type" scale for floods or flood hazards. Mr. Quarles stated Mr. James Mirabel of the Texas Natural Resource Conservation Commission (TNRCC) may have additional handbooks for definition and categorization of floodplain hazards and suggested we contact him.

NEPA Call-In contacted Mr. James Mirabel, State Coordinator, Flood Insurance Program, TNRCC, (512) 239-4771. Mr. Mirabel stated Title 44 CFR Part 59 is the national standard for definition and categorization of flood plains and flood plain hazards. His office also uses the "Guidelines and Study Specifications for Study Contractors" for technical guidance. Mr. Mirabel stated the above documents contain the standard accepted measure of floods and flood hazards. He provided the following enclosed publications which may help in the revision of your floodplain location policy:

1. "Floodplain Administrators Handbook", TNRCC, February 1996, developed from FEMA guidelines to identify steps a Floodplain Administer must take to ensure development in a floodplain is regulated; and
2. "Texas Community Official's Primer on Floodplain Planning Strategies and Tools," June 1994, TNRCC. This publication provides an overview

of floodplain management.

In summary, the standard for definition and categorization of floodplain hazards is contained in Title 44 CFR Chapter 1. Further, the FEMA publication "Guidelines and Study Specifications for Study Contractors" provides additional technical guidance. There is no "Richter-type" scale for measuring floods or flood hazards.

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Sincerely,

(Original Signed)

NEPA Call-In Researcher