

DEPARTMENT OF THE ARMY  
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Technical Letter  
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**Engineering and Design**  
**INTERIOR FLOOD HYDROLOGY**

- 1. Purpose.** This ETL provides guidance for conducting hydrologic engineering flood damage reduction analyses of interior areas. The Hydrologic Engineering Center Interior Flood Hydrology (HEC-IFH) program is the primary tool used to demonstrate the analysis procedures presented.
- 2. Applicability.** This guidance applies to HQUSACE elements, major subordinate commands, districts, laboratories, and field operating activities having civil works responsibilities.
- 3. General.** Procedures described herein are considered appropriate and usable for hydrologic engineering planning and design studies involving flood damage reduction measures for interior areas. Specifically, the document is intended to assist with better scoping, planning, and analysis of interior flooding studies using the HEC-IFH program. Hydrologic engineering requirements for existing and future with and without conditions analyses are summarized. The minimum facility concept is presented. Technical analysis procedures for hydrologic analysis using hypothetical events and continuous simulation for various conditions of coincidence between interior and exterior flooding are described. Emphasis is placed on hydrologic analyses of gravity outlets, pumping stations, and detention storage. Appendices provide two example applications.

FOR THE COMMANDER:

  
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Colonel, Corps of Engineers  
Chief of Staff