

# Instructions for Form 6 - Alluvial Fan Flooding

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This form should be used for revision requests involving alluvial fan flooding.

Download [Form 6 - Alluvial Fan Flooding](#).

## Purpose

In compliance with the National Flood Insurance Program regulations in the Code of Federal Regulations Title 44 Section §65.13, this form is used to ensure structural flood control measures in areas subject to alluvial fan flooding is designed and/or constructed to provide 1% annual-chance or greater flood hazard reduction. This is required for FEMA to recognize it on a flood map.

Elevating a parcel of land or a structure by fill or other means will not serve as a basis for removing areas subject to alluvial fan flooding from an area of special flood hazards. Complete engineering analyses must be submitted in support of each section of this form.

In addition, it may be necessary to complete other forms relating to specific flood control measures, such as levees/floodwalls, channelization, or dams.

## Section A: Three-Stage Analysis

The three-stage analysis of alluvial fans is described in the Guidance for Flood Risk Analysis and Mapping: [Alluvial Fans](#) on FEMA's website. The document can also be downloaded on FEMA's [Guidance](#) page on the website.

1. Complete the information regarding the characterization of the alluvial fan landform. This should include the material of which the landform is generally composed. Sources of data should also be submitted. To help the reviewer analyze the landform, the submitted information should include, but not be



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- limited to, soil surveys, geologic mapping, and historic aerial photography.
2. Complete the information regarding the definition of active and inactive areas. This section should be filled out to help correctly determine the age of the alluvial fan, whether the fan is active and inactive, the types of flooding, and the methods used to support this analysis.
  3. Complete the information regarding the determination of the 1%-annual-chance floodplain boundaries. This section should identify the method or modeling that was used to delineate these floodplain boundaries. To help select the correct method for calculating the 1%-annual-chance floodplain boundary, the active alluvial fan characteristics should be checked. In addition, the flooding source(s) should be evaluated so that additional flooding above or below the hydrological apex is not ignored.

## **Section B: Structural Flood Control Measures**

Complete the information regarding any structural flood control measures. In addition, complete and submit the [Riverine Structure Form 3](#) and an Operation and Maintenance Plan with the revision request. The Operation and Maintenance Plan may be submitted when requesting a Conditional Letter of Map Revision, but it is not required. However, it will be required after construction is complete and a revision to the Flood Insurance Rate Map is requested.

## **Section C: Mapping Requirements**

Submit a certified topographic map showing the information indicated in the Mapping Requirements section of the form. This includes the boundaries of the alluvial fan landform, a delineation of the active and inactive portions of the alluvial fan landform, the revised 1%-annual-chance floodplain boundaries and the correct alignment of all structural features. In addition, submit a copy of the effective Flood Insurance Rate Map which is annotated to show the revised 1%-annual-chance floodplain boundaries.

