Federal Emergency Management Agency, DHS

§ 65.13 Mapping and map revisions for areas subject to alluvial fan flooding.

This section describes the procedures to be followed and the types of information FEMA needs to recognize on a NFIP map that a structural flood control measure provides protection from the base flood in an area subject to alluvial fan flooding. This information must be supplied to FEMA by the community or other party seeking recognition of such a flood control measure at the time a flood risk study or restudy is conducted, when a map revision under the provisions of part 65 of this subchapter is sought, and upon request by the Federal Insurance Administrator during the review of previously recognized flood control measures. The FEMA review will be for the sole purpose of establishing appropriate risk zone determinations for NFIP maps and shall not constitute a determination by FEMA as to how the flood control measure will perform in a flood event.

(a) The applicable provisions of §§65.2, 65.3, 65.4, 65.6, 65.8 and 65.10 shall also apply to FIRM revisions involving alluvial fan flooding.

(b) The provisions of §65.5 regarding map revisions based on fill and the provisions of part 70 of this chapter shall not apply to FIRM revisions involving alluvial fan flooding. In general, elevations of 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.

(c) FEMA will credit on NFIP maps only major structural flood control measures whose design and construction are supported by sound engineering analyses which demonstrate that the measures will effectively eliminate alluvial fan flood hazards from the area protected by such measures. The provided analyses must include, but are not necessarily limited to, the following:

(1) Engineering analyses that quantify the discharges and volumes of water, debris, and sediment movement associated with the flood that has a one-percent probability of being exceeded in any year at the apex under current watershed conditions and under potential adverse conditions (e.g., deforestation of the watershed by fire). The potential for debris flow and sediment movement must be assessed using an engineering method acceptable to FEMA. The assessment should consider the characteristics and availability of sediment in the drainage basin above the apex and on the alluvial fan.

(2) Engineering analyses showing that the measures will accommodate the estimated peak discharges and volumes of water, debris, and sediment, as determined in accordance with paragraph (c)(1) of this section, and will withstand the associated hydrodynamic and hydrostatic forces.

(3) Engineering analyses showing that the measures have been designed to withstand the potential erosion and scour associated with estimated discharges.

(4) Engineering analyses or evidence showing that the measures will provide protection from hazards associated with the possible relocation of flow paths from other parts of the fan.
(5) Engineering analyses that assess the effect of the project on flood hazards, including depth and velocity of floodwaters and scour and sediment deposition, on other areas of the fan.

(6) Engineering analyses demonstrating that flooding from sources other than the fan apex, including local runoff, is either insignificant or has been accounted for in the design.

(d) **Coordination.** FEMA will recognize measures that are adequately designed and constructed, provided that: evidence is submitted to show that the impact of the measures on flood hazards in all areas of the fan (including those not protected by the flood control measures), and the design and maintenance requirements of the measures, were reviewed and approved by the impacted communities, and also by State and local agencies that have jurisdiction over flood control activities.

(e) **Operation and maintenance plans and criteria.** The requirements for operation and maintenance of flood control measures on areas subject to alluvial fan flooding shall be those specified under §65.10, paragraphs (c) and (d), when applicable.

(f) **Certification requirements.** Data submitted to support that a given flood control measure complies with the requirements set forth in paragraphs (c) (1) through (6) of this section must be certified by a registered professional engineer. Also, certified as-built plans of the flood control measures must be submitted. Certifications are subject to the definition given at §65.2.


§ 65.14 Remapping of areas for which local flood protection systems no longer provide base flood protection.

(a) **General.** (1) This section describes the procedures to follow and the types of information FEMA requires to designate flood control restoration zones. A community may be eligible to apply for this zone designation if the Federal Insurance Administrator determines that it is engaged in the process of restoring a flood protection system that was:

(i) Constructed using Federal funds;

(ii) Recognized as providing base flood protection on the community’s effective FIRM; and

(iii) Decertified by a Federal agency responsible for flood protection design or construction.

(2) Where the Federal Insurance Administrator determines that a community is in the process of restoring its flood protection system to provide base flood protection, a FIRM will be prepared that designates the temporary flood hazard areas as a flood control restoration zone (Zone AR). Existing special flood hazard areas shown on the community’s effective FIRM that are further inundated by Zone AR flooding shall be designated as a “dual” flood insurance rate zone, Zone AR/AE or AR/AH with Zone AR base flood elevations, and AE or AH with base flood elevations and Zone AR/AO with Zone AR base flood elevations and Zone AO with flood depths, or Zone AR/A with Zone AR base flood elevations and Zone A without base flood elevations.

(b) **Limitations.** A community may have a flood control restoration zone designation only once while restoring a flood protection system. This limitation does not preclude future flood control restoration zone designations should a fully restored, certified, and accredited system become decertified for a second or subsequent time.

(1) A community that receives Federal funds for the purpose of designing or constructing, or both, the restoration project must complete restoration or meet the requirements of 44 CFR 61.12 within a specified period, not to exceed a maximum of 10 years from the date of submittal of the community’s application for designation of a flood control restoration zone.

(2) A community that does not receive Federal funds for the purpose of constructing the restoration project must complete restoration within a specified period, not to exceed a maximum of 5 years from the date of submittal of the community’s application for designation of a flood control restoration zone. Such a community is not eligible for the provisions of §61.12. The designated restoration period may not be extended beyond the maximum allowable under this limitation.