



Partial Implementation of the Federal Flood Risk Management Standard for Public Assistance (Interim)

FEMA Policy 104-22-0003

BACKGROUND

This policy partially implements the Federal Flood Risk Management Standard (FFRMS) for projects funded under Section 406 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. § 5121 *et seq*¹ (Stafford Act).² The FFRMS is a flood standard, established in Executive Order (EO) 13690³, to increase community resilience to flooding. EO 14030⁴ directs FEMA to implement the FFRMS. FEMA plans to fully implement the FFRMS by rulemaking. This policy partially implements the FFRMS with respect to covered projects within existing floodplains. This policy is effective for all major disasters declared on or after the date of issuance. All other requirements defined in the Public Assistance Program and Policy Guide⁵ (PAPPG) apply.

PURPOSE

This policy provides elevation requirements for critical⁶ and non-critical actions involving structures located in a designated floodplain. The policy establishes requirements for elevating and floodproofing⁷ structures funded under the Public Assistance (PA) program.

PRINCIPLES

A. Ensure that communities affected by future flooding are less vulnerable to the loss of

¹ [Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. § 5121 *et seq*.](#)

² 44 CFR § 9.11(d)(6) requires FEMA's actions to be consistent with the criteria of the National Flood Insurance Program (44 CFR Part 59 *et seq.*) or any more restrictive federal, state or local floodplain management standards. The FFRMS is a federal floodplain management standard that is more restrictive than the minimum floodplain management criteria of the National Flood Insurance Program.

³ [Executive Order 13690—Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input.](#)

⁴ [Executive Order 14030, Climate-Related Financial Risk.](#)

⁵ [Public Assistance Program and Policy Guide.](#)

⁶ Under 44 CFR § 9.4, Critical Action means an action for which even a slight chance of flooding is too great. Critical actions include, but are not limited to, those which create or extend the useful life of structures or facilities such as: (a) those which produce, use, or store highly volatile, flammable, explosive, toxic or water-reactive materials; (b) hospitals and nursing homes, and housing for the elderly, which are likely to contain occupants who may not be sufficiently mobile to avoid the loss of life or injury during flood and storm events; (c) emergency operation centers, or data storage centers which contain records or services that may become lost or inoperative during flood and storm events; and (d) generating plants, and other principal points of utility lines.

⁷ Under 44 CFR § 9.4, Floodproofing means the modification of individual structures and facilities, their sites, and their contents to protect against structural failure, to keep water out, or to reduce effects of water entry.



life and property.

B. Ensure that investment of PA program funds for projects in the floodplain are spent to protect structures from flood risk.

C. Ensure that structures are elevated or floodproofed to address current and future flood risk.

D. Implement this policy in a consistent and equitable manner.

REQUIREMENTS

A. APPLICABILITY

Outcome: Define the applicability of this policy.

1. This policy applies to structures (walled or roofed buildings, including mobile homes and gas or liquid storage tanks) in a mapped or established 100- or 500-year floodplain⁸ that have a substantial damage⁹ determination, require substantial improvement¹⁰ or involve new construction.¹¹ This applies regardless of the cause of damage. For example, if a school building located in the 100-year floodplain¹² was substantially damaged by an earthquake, the flood elevation requirements of this policy would apply.

B. DETERMINING THE FLOODPLAIN

Outcome: Identify the applicable flood hazard information.

1. FEMA uses the best available flood hazard information to determine the 100- and 500-year floodplains. This information may be found in flood insurance rate maps (FIRM)¹³ or

⁸ Under 44 CFR § 9.4, Floodplain means the lowland and relatively flat areas adjoining inland and coastal waters including, at a minimum, that area subject to a one percent or greater chance of flooding in any given year. Wherever in this regulation the term “floodplain” is used, if a critical action is involved, “floodplain” shall mean the area subject to inundation from a flood having a 0.2 percent chance of occurring in any given year (500-year floodplain). “Floodplain” does not include areas subject only to mudflow until FIA adopts maps identifying “M” Zones.

⁹ Under 44 CFR § 59.1, Substantial Damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

¹⁰ Under 44 CFR § 9.4, Substantial Improvement means any repair, reconstruction or other improvement of a structure or facility, which has been damaged in excess of, or the cost of which equals or exceeds, 50% of the market value of the structure or replacement cost of the facility (including all “public facilities” as defined in the Disaster Relief Act of 1974) (a) before the repair or improvement is started, or (b) if the structure or facility has been damaged and is proposed to be restored, before the damage occurred. If a facility is an essential link in a larger system, the percentage of damage will be based on the relative cost of repairing the damaged facility to the replacement cost of the portion of the system which is operationally dependent on the facility. The term “substantial improvement” does not include any alteration of a structure or facility listed on the National Register of Historic Places or a State Inventory of Historic Places.

¹¹ Under 44 CFR § 9.4, New Construction means the construction of a new structure (including the placement of a mobile home) or facility or the replacement of a structure or facility which has been totally destroyed.

¹² Under 44 CFR § 9.4, Base Flood means the flood which has a one percent chance of being equaled or exceeded in any given year (also known as a 100-year flood). This term is used in the National Flood Insurance Program (NFIP) to indicate the minimum level of flooding to be used by a community in its floodplain management regulations.

¹³ Under 44 CFR § 59.1, Flood Insurance Rate Map (FIRM) means an official map of a community, on which the Federal Insurance Administrator has delineated both the special hazard areas and the risk premium zones applicable to the community. A FIRM that has been made available digitally is called a Digital Flood Insurance Rate Map (DFIRM).



flood insurance studies (FIS).

- a. If the FIRM is up to date and available, and FEMA determines that the best flood hazard information is the FIRM, then applicants must use the 100- and 500-year floodplains on that map to apply this policy.
- b. If FEMA has provided advisory flood hazard information because the effective FIRM is out of date, FEMA will designate the advisory information for use in the disaster if the advisory information is at least as restrictive as the effective information. FEMA will communicate the availability of floodplain maps or advisory flood hazard information to be used in a disaster.¹⁴

C. APPLICABLE DESIGN STANDARD

Outcome: Define the elevation requirements for different types of structures in floodplains. The design standard differs depending on whether the action is a critical or non-critical action and whether the structure is in a 100- or 500-year floodplain.

1. For non-critical actions involving structures with substantial damage, substantial improvement, or new construction in a 100-year floodplain:
 - a. Applicants must elevate or floodproof¹⁵ the structures to the 500-year flood elevation¹⁶ or an additional 2 feet above the base flood elevation (BFE), whichever is **lower**.
 - b. For those areas where the 500-year flood elevation has not been established, applicants must elevate or floodproof the structures an additional 2 feet above the BFE.
2. For critical actions involving structures with substantial damage, substantial improvement, or new construction in the 100-year floodplain:
 - a. Applicants must elevate or floodproof the structures to the 500-year flood elevation or an additional 3 feet above the BFE, whichever is **higher**.
 - b. For those areas where the 500-year elevation has not been established, applicants must elevate or floodproof the structures an additional 3 feet above the BFE.
3. For critical actions involving structures with substantial damage, substantial improvement, or new construction in the 500-year floodplain, applicants must elevate or floodproof the structures to the 500-year flood elevation or an additional 3-feet above the BFE, whichever is **higher**.
4. This policy does not affect non-critical actions involving structures that are within the

¹⁴ See [FEMA Policy #104-008-2: Guidance on the Use of Best Available Flood Hazard Information](#) for additional information.¹⁵ Under 44 CFR § 9.11(d)(3)(iii), the floodproofing option is limited to nonresidential structures. This limitation applies to each section of this policy in which FEMA has referenced floodproofing.

¹⁵ Under 44 CFR § 9.11(d)(3)(iii), the floodproofing option is limited to nonresidential structures. This limitation applies to each section of this policy in which FEMA has referenced floodproofing.

¹⁶ In coastal locations, there may be occasions in which the established 500-year flood elevation is lower than the established 100-year flood elevation. In those circumstances, applicants must elevate or floodproof the structures an additional 2 feet above the BFE.



500-year floodplain, but outside the 100-year floodplain.

The following Figure 1 depicts a visual to provide context for the above language.

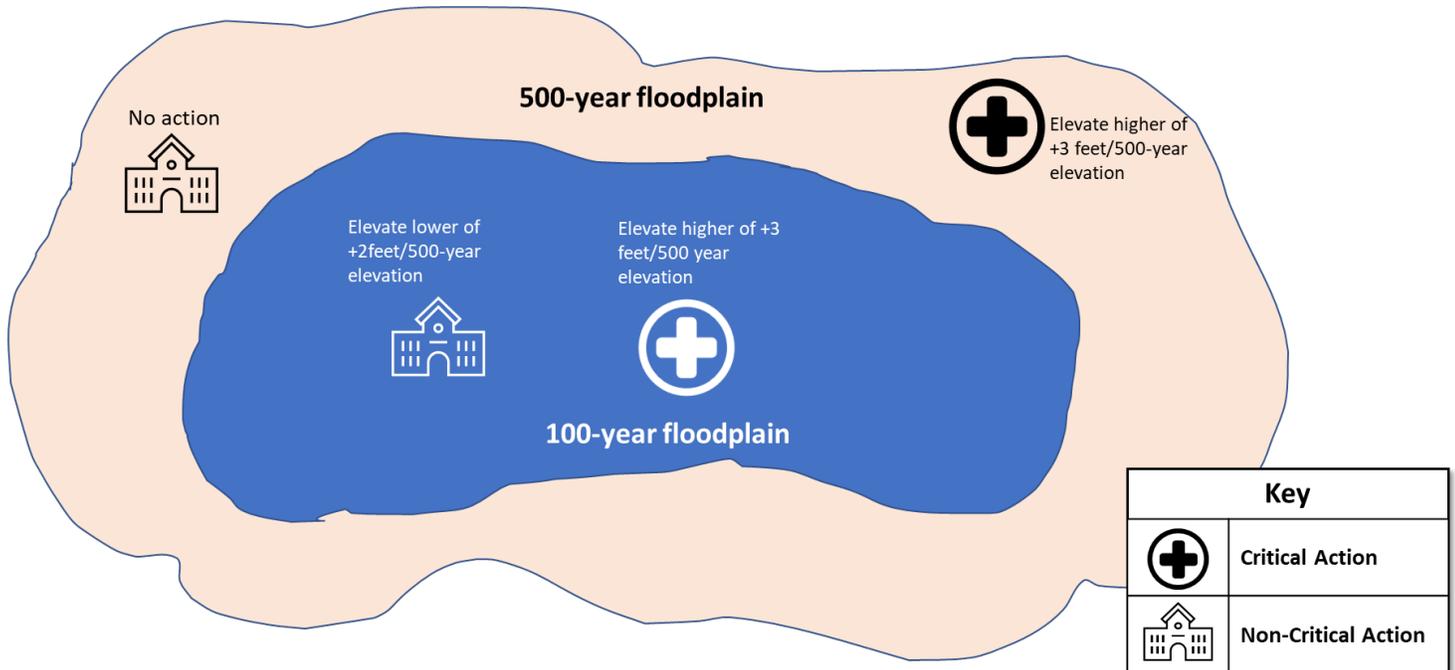


Figure 1. Federal Flood Risk Management Standard Floodplain graphic

5. FEMA Policy FP-104-009011: *Consensus-Based Codes, Specifications and Standards for Public Assistance*¹⁷ also applies to these structures, which requires the use of American Society of Civil Engineers (ASCE) 24-14. When the elevation requirements in ASCE 24-14 are lower than the elevation requirements of this policy, the Applicant must use the requirements of this policy. Appendix A describes which facilities are categorized as containing critical actions and how these compare to design classes listed in ASCE 24-14.
6. FEMA provides PA funding for costs associated with elevating and floodproofing structures to meet the requirements of this policy.¹⁸ PA will provide funding for a higher elevation if required by a more stringent code or standard of a state, local, tribal, or territorial government that meets FEMA’s regulatory criteria under 44 CFR § 206.226(d).

D. COORDINATION

Outcome: Ensure streamlined coordination with other federal agencies.

1. When multiple federal agencies are conducting, supporting (including funding), or permitting projects in the same geographic area, early coordination is essential to avoid the potential for conflicting standards being applied within the same geographic area or on the same project. Accordingly, when FEMA is funding an action with or in the same

¹⁷ [Section 1235\(b\) | Consensus-Based Codes and Standards | FEMA.gov](#)

¹⁸ Funding is subject to the disaster cost-share.



area as another federal agency, FEMA will coordinate with the applicable federal agencies as early in the planning process as possible. When coordinating with other federal agencies, FEMA may elect to use the FFRMS approach of another agency to establish the vertical flood elevation requirement.

2. FEMA has committed to expediting and unifying environmental reviews. The Unified Federal Review (UFR) process offers additional coordination opportunities for FEMA and other federal agencies. The UFR allows for higher-level resolution in instances where agreement on a common approach reaches an impasse. For more information on the UFR Process, see FEMA's website at <https://www.fema.gov/emergency-managers/practitioners/environmental-historic/review/library>.

E. Equity Requirements

Outcome: Ensure delivery of the PA in an equitable manner.

1. As a condition of receiving PA funding, Recipients and Subrecipients must comply with all laws and authorities prohibiting discrimination, including but not limited to, Title 44 Code of Federal Regulations Part 7 and Title VI of the Civil Rights Act, which prohibit discrimination based on race, color or national origin (including limited English proficiency); and the Stafford Act Section 308, which requires the impartial and equitable delivery of disaster services and activities without discrimination on the grounds of race, color, religion, nationality, sex, age, disability, English proficiency, or economic status.

Melissa K. Forbes
Assistant Administrator
Recovery Directorate

June 3, 2022

Date



ADDITIONAL INFORMATION

REVIEW CYCLE

FEMA Policy 104-22-0003 *Partial Implementation of the Federal Flood Risk Management Standard for Public Assistance*, will be reviewed and evaluated as necessary until regulatory implementation of [Executive Order 14030](#) and applicable FFRMS standards. The Assistant Administrator for the Recovery Directorate is responsible for authorizing any changes or updates to this policy.

AUTHORITIES

Authorities

- Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. § 5121-5207, as amended
- Title 44 of the Code of Federal Regulations, Parts 7, 9 and 206.

References

- Executive Order 13690: Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input.
- Executive Order 14030: Climate-Related Financial Risk.

MONITORING AND EVALUATION

FEMA will monitor the implementation of this policy through close coordination with regional and field staff, as appropriate, as well as interagency partners and state, local, tribal, and territorial stakeholders.

QUESTIONS

Direct questions to fema-recovery-pa-executive-office@fema.dhs.gov.



Appendix A: FEMA’s Classification of Critical Actions and ASCE 24-14 Design Flood Classes

Title 44 Code of Federal Regulations Part 9 describes a critical action as one for which even a slight chance of flooding is too great. This appendix clarifies which facilities are categorized as containing critical actions and how these compare to design classes listed within American Society of Civil Engineers (ASCE) 24-14.

- A.** Implementing guidelines¹⁹ for Executive Order 13690 provides the following criteria for determining whether actions are critical:
1. If flooded, would the proposed action create an added dimension or consequence to the disaster? For example, facilities storing liquefied natural gas terminals or facilities producing and storing highly volatile, toxic, or water-reactive materials.
 2. If the action involves structures such as hospitals, nursing homes, prisons, and schools, would occupants of these structures be sufficiently mobile and have available transport capability to avoid loss of life and injury given the flood warning lead times available?
 3. Would essential or irreplaceable resources, utilities, or other functions be damaged beyond repair, destroyed, or otherwise made unavailable?
 4. Would the damage or disruption from a local flooding event lead to regional or national catastrophic impacts (e.g., a port being closed for a period following a storm event, which has an impact on transportation of goods nationally)?
 5. Would damage or disruption to a given facility or infrastructure component have potential for cascading damage or disruption to other facilities and infrastructure classes, some of which may already be stressed by flood conditions (e.g., electricity outage due to substation damage resulting in wastewater treatment facility shutdown or gasoline pump outage)?
- B.** Examples of structures housing substances or providing services for which even a slight chance of flooding is too great (critical) include the following facilities:
1. Those that produce, use or store highly volatile, flammable, explosive, toxic, or water-reactive materials.
 2. Hospitals, nursing homes, and housing for the elderly which are likely to contain occupants who may not be sufficiently mobile to avoid the loss of life or injury during flood and storm events.
 3. Emergency operation centers or data storage centers which contain records or services that may become lost or inoperative during flood and storm events.

¹⁹ [Water Resources Council, Implementing Guidelines for Establishing A Federal Flood Risk Management Standard.](#)



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4. Power generating plants and other principal points of utility lines.
5. Those for which the purpose is the storage of irreplaceable records.

C. ASCE 24-14 Design Class 4 critical action facilities include:

1. Hospitals and health care facilities having surgery or emergency treatment facilities.
2. Fire, rescue, ambulance, and police stations and emergency vehicle garages.
3. Designated emergency shelters.
4. Designated emergency preparedness, communication, and operation centers and other facilities required for emergency response.
5. Power generating stations and other public utility facilities required in emergencies.
6. Critical aviation facilities such as control towers, air traffic control towers, electrical substations, fuel or water storage tanks or other structures necessary to allow continued functioning of a Flood Design Class 4 facility during and after an emergency.
7. Buildings and other structures (including but not limited to, facilities that manufacture, process, handle, store, use, or dispose of such substances as hazardous fuels, hazardous chemicals, or hazardous waste) containing sufficient quantities of highly toxic substances where the quantity of the material exceeds a threshold quantity established by the authority having jurisdiction and is sufficient to pose a threat to the public if released.

D. ASCE 24-14 Design Class 3 critical actions facilities include:

1. Jails, correctional facilities, and detention facilities.
2. Care facilities where residents have limited mobility or ability, including nursing homes but not including care facilities for five or fewer persons.
3. Preschool and childcare facilities not located in one- and two-family dwellings.
4. Buildings and structures associated with power generating stations, water and sewage treatment plants, telecommunication facilities, and other utilities which, if their operations were interrupted by a flood, would cause significant disruption in day-to-day life or significant economic losses in a community.
5. Buildings and other structures not included in Flood Design Class 4 (including but not limited to facilities that manufacture, process, handle, store, use, or dispose of such substances as hazardous fuels, hazardous chemicals, hazardous waste, or explosives) containing toxic or explosive substances where the quantity of the material exceeds a threshold



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quantity established by the authority having jurisdiction and is sufficient to pose a threat to the public if released.

- E.** Applicants must contact FEMA for a critical action determination for any facility not listed that, if flooded, would present potential public health or security threats.