

Federal Flood Risk Management Standard (FFRMS): FEMA's Final Rule and the Federal Flood Standard Support Tool



FEMA

Katie Rand, FEMA Region 1
CAFM Annual Conference, 13 November 2024

Outline



FEMA R1 Staff Photo, Elevation Project in East Haven

- Federal Flood Risk Management Standard (FFRMS) Overview
- Approaches to Identify the FFRMS Floodplain
- Roles and Responsibilities
- FEMA's Implementation of FFRMS
- Federal Flood Standard Support Tool
- FEMA Region 1 Contacts



FFRMS Overview

- The Federal Flood Risk Management Standard (FFRMS) was established by Executive Order 13690 in 2015, rescinded in 2017, and reinstated in 2021 by Executive Order 14030.
- FFRMS is a flexible framework that supplements E.O. 11988 *Floodplain Management* (1977)
- Purpose:
 - to address current and future flood risk
 - to protect projects funded with taxpayer dollars so they last as long as intended
- How:
 - expand management from the base flood elevation to a higher vertical flood elevation and corresponding horizontal floodplain



FEMA

But first, why should you care?



FEMA



What is the FFRMS Floodplain?

FFRMS expands management from the Base Flood Elevation to a higher vertical flood elevation and corresponding horizontal floodplain.

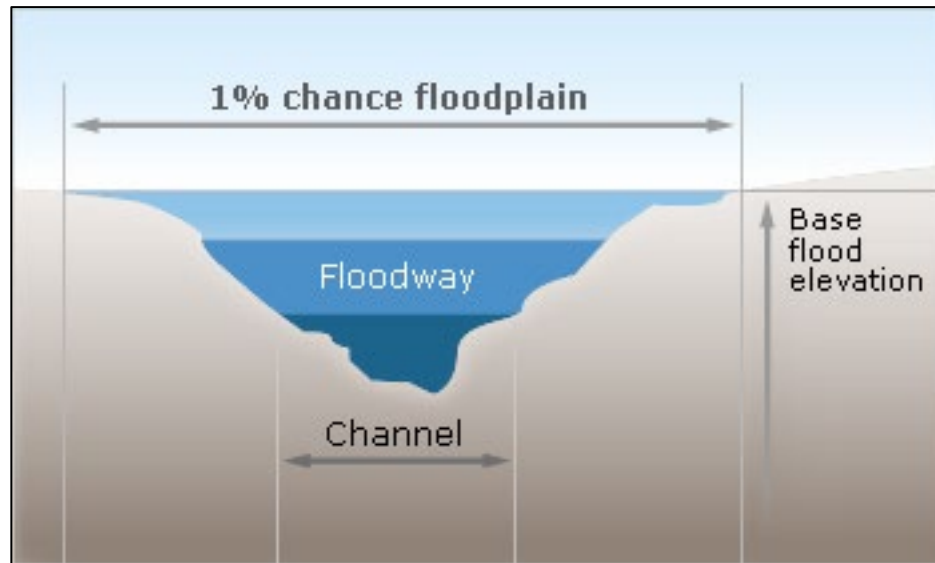
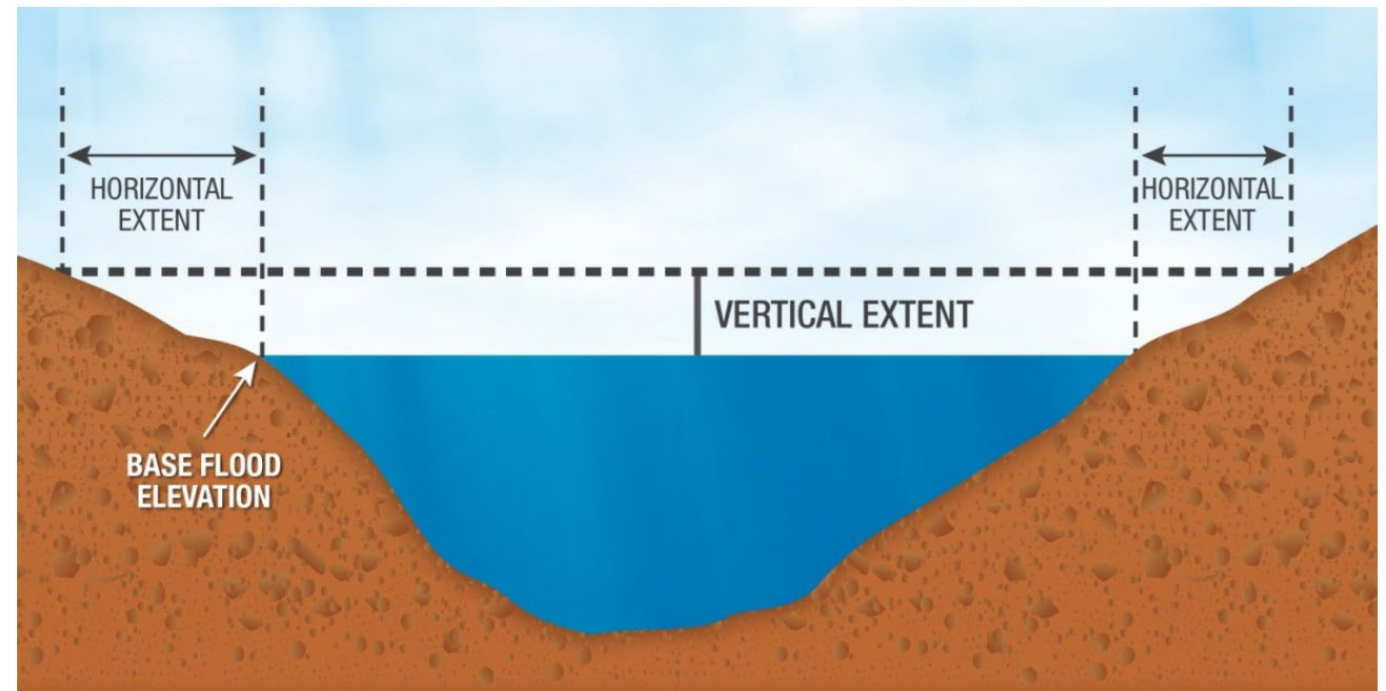


Image: Washington State Dept of Ecology



The Special Flood Hazard Area (SFHA) is depicted on the left and the FFRMS Floodplain on the right.

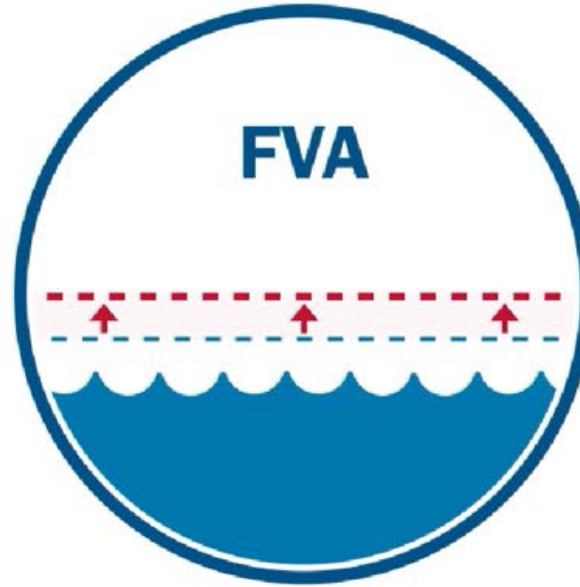


FEMA

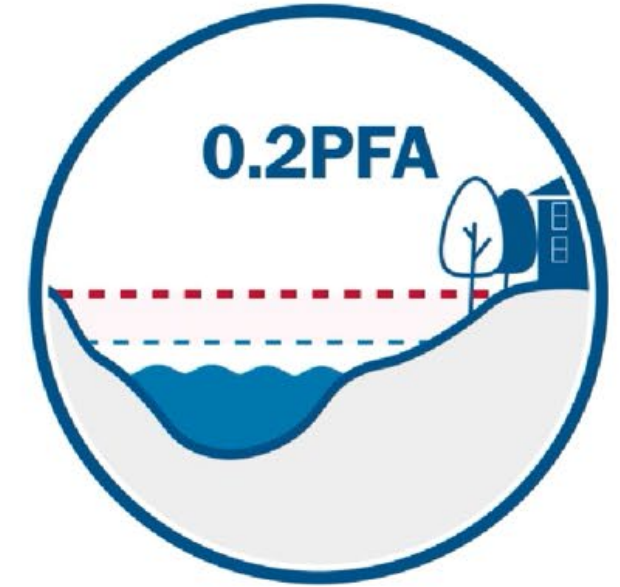
How do you identify the FFRMS floodplain?



**Climate-Informed Science
Approach (CISA)**



Freeboard Value Approach (FVA)



**0.2-Percent-Annual-Chance
Flood Approach (0.2PFA)**



FEMA



Roles in FFRMS Implementation



FEMA

Responsible for reviewing proposed projects and confirming that they appropriately incorporate FFRMS requirements, requesting any information required to confirm adherence to FFRMS but not supplied by applicant, and providing technical assistance to applicants and Other Federal Agencies.



Floodplain Managers

Responsible for serving as a source of information on community-level flood conditions, maintaining familiarity with FFRMS requirements and resources, making Substantial Damage/ Substantial Improvement determinations for structures in the Special Flood Hazard Area, and supporting FEMA in sharing FFRMS resources with state, local, and Other Federal Agency stakeholders.



Applicants/Sub-Aplicants

Responsible for understanding how FFRMS relates to their projects, providing accurate and complete descriptions of scope of work and all alternatives considered in their applications, and ensuring projects are implemented as defined.



Other Federal Agencies

Responsible for avoiding the application of conflicting standards by coordinating with FEMA following Presidential disaster declarations and when conducting, supporting, or permitting post-disaster actions in the same geographical area as FEMA.



FEMA FFRMS Policy (FP 206-24-005, Effective 09/09/2024)

FEMA's Federal Flood Risk Management Standard (FFRMS) Policy implements the requirements of Executive Order (EO) 11988, *Floodplain Management*, as amended by EO 13690, *Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input*.

This Policy bolsters community resilience to flooding and ensures that FEMA actions located in floodprone areas last as long as intended.

[LINK: FEMA Policy: Federal Flood Risk Management](#)



FEMA



FEMA FFRMS Applicability

- FEMA-funded new construction, repair of substantial damage, and substantial improvement
- Hazard Mitigation Assistance program structure elevation, mitigation reconstruction, and dry floodproofing actions
- Effective for disasters declared and notices of funding opportunity (NOFOs) published on or after September 9, 2024*
 - **Partial implementation* policies continue to apply for periods between June 2022 and September 2024.



FEMA FFRMS Applicability

- *FEMA's* rule does NOT apply to:
 - Other federal agencies (they have their own policies and guidance)
 - Individual Assistance financial assistance for the repair of private homes
 - NFIP policy payouts (absent other funding sources/grants where FFRMS applies)
 - Privately funded repairs or construction



FEMA

FEMA FFRMS Applicability

PARTIAL Implementation	FULL Implementation
DRs declared Jun. 3, 2022 - Sept. 8, 2024 & COVID declarations	DRs declared on/after Sept. 9, 2024
New construction, substantial improvement, substantial damage	Same
Structures	Structures and Facilities
	Subject to 8-Step ($\geq 18k$)
In mapped floodplain. Non-critical & critical actions in 1% floodplain; or critical actions in 0.2% floodplain	Actions (non-critical and critical) in FFRMS floodplain*

**While partial implementation has vertical standards (e.g., how high) within the existing floodplain, full implementation has the same standards within expanded FFRMS floodplain.*



FEMA

Federal Emergency Management Agency

FEMA FFRMS Requirements

- Actions must be located outside the FFRMS floodplain, or elevated or dry floodproofed to the FFRMS flood elevation based on the type of development.
- *Facilities* must be protected through a means appropriate for that project.
- Nature-based solutions are required to be considered and used, where feasible.



Figure 3-11. Example of well-elevated and embedded pile foundation tested by Hurricane Katrina. Note adjacent building failures (Dauphin Island, AL, 2005).



Figure 3-9. Aluminum flood shield used for flooding less than 3 feet deep



FEMA



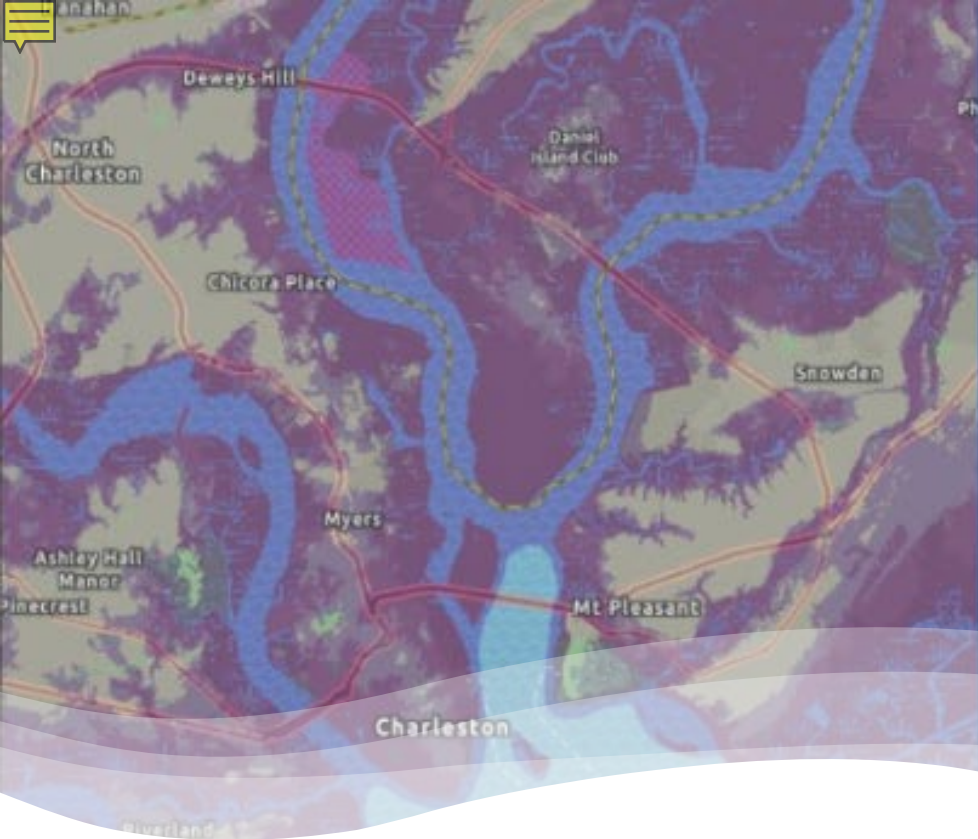
FEMA FFRMS Requirements

PARTIAL Implementation	FULL Implementation
Freeboard Value Approach (FVA) 0.2% Flood Approach (0.2PFA)	Climate Informed Science Approach (CISA) must be used in locations where CISA is available Freeboard Value Approach (FVA) 0.2% Flood Approach (0.2PFA)
Non-critical in 1% FP: Base Flood Elevation + 2 ft or 0.2% flood elevation, whichever is lower. Critical in 1% or 0.2% FP: Base Flood Elevation + 3 ft or 0.2% flood elevation, whichever is higher.	Non-critical in FFRMS FP: Base Flood Elevation + 2 ft or 0.2% flood elevation, whichever is lower. Critical in FFRMS FP: Base Flood Elevation + 3 ft or 0.2% flood elevation, whichever is higher.

**Note: If a higher community or state standard exists, that will apply instead of FFRMS.*



FEMA



Federal Flood Standard Support Tool

Understand whether your project is located within a FFRMS floodplain and assess its vulnerability to future flooding scenarios, adhering to Federal Flood Risk Management Standards (FFRMS).

Tools and Resources

- [Federal Flood Standard Support Tool](#)
- [FFRMS Floodplain Determination Job Aid](#)
- [FEMA Policy: Federal Flood Risk Management](#)
- [PA 2022 FFRMS Partial Implementation Policy \(104-22-0003\)](#)
- [PA 2024 FFRMS Full Implementation Policy \(206-24-005\)](#)
- [HMA 2022 FFRMS Partial Implementation Policy \(206-21-003-0001\)](#)
- [March 2023 Nature Based Solutions Guidebook](#)
- [Substantial Improvement/Substantial Damage Desk Reference \(fema.gov\)](#)

Federal Flood Standard Support Tool (FFSST)

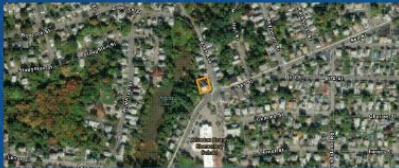
Federal Flood Standard Support Tool

[Help](#) [About](#)

Assess project's flooding risk

1

Define project location



2

Input criticality and service life

3

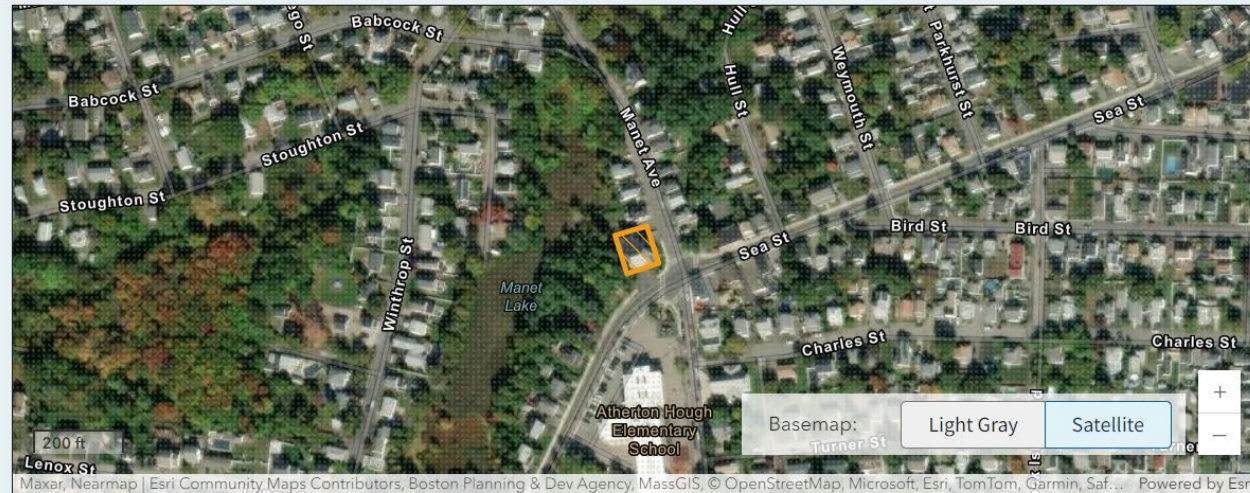
Generate Report(s)

1. Define Project Location

The green counties on the map represent counties where either full or partial FFRMS floodplain data is available.

[Clear Drawing](#)

42.26783, -70.95761



[Next](#)



FEMA



FFSST – Criticality and Service Life

2. Input Criticality and Service Life

Service Criticality

Critical



[!\[\]\(e3f8612927870f2e0f9f5989e6dd3064_img.jpg\) What is the difference between a critical and non-critical action?](#)

Service Life

2080



[!\[\]\(cf531ed27e91483460120fcc057b3901_img.jpg\) How to determine service life?](#)



FEMA



FFSST – Generate and Download Reports

3. Download Reports

The following report(s) are based on the project specifics that you entered and the FFRMS data. Note that CISA reports are only available for coastal areas.

CISA Report Freeboard Value Approach Report

Report generated by the Federal Flood Standard Support Tool on Thu Oct 24 2024. For more information on FFRMS and the data, visit <https://floodstandard.climate.gov>.

Summary

Based on the user-defined location, service life (56 Years), and critical designation, the proposed action is in floodplain.

The 2050 estimated sea-level rise amount is 2 ft, corresponding to a FFRMS flood elevation of 14 FT NAVD88.

The 2080 estimated sea-level rise amount is 4 ft, corresponding to a FFRMS flood elevation of 16 FT NAVD88.

The North American Vertical Datum of 1988 (NAVD88) is the datum used on FEMA Digital Flood Insurance Rate Base Flood Elevations (BFEs).

Projects located in the FFRMS floodplain should be designed consistent with the applicable policies and direc

Back

Download CISA Report

Start New Assessment



FFRMS CISA Report

Report generated by the Federal Flood Standard Support Tool on Thu Oct 24 2024. For more information on FFRMS and the data, visit <https://floodstandard.climate.gov>.

Summary

Based on the user-defined location, service life (56 Years), and critical designation, the proposed action is in the coastal FFRMS floodplain.

The 2050 estimated sea-level rise amount is 2 ft, corresponding to a FFRMS flood elevation of 14 FT NAVD88.

The 2080 estimated sea-level rise amount is 4 ft, corresponding to a FFRMS flood elevation of 16 FT NAVD88.

The North American Vertical Datum of 1988 (NAVD88) is the datum used on FEMA Digital Flood Insurance Rate Maps (DFIRMs) for Base Flood Elevations (BFEs).

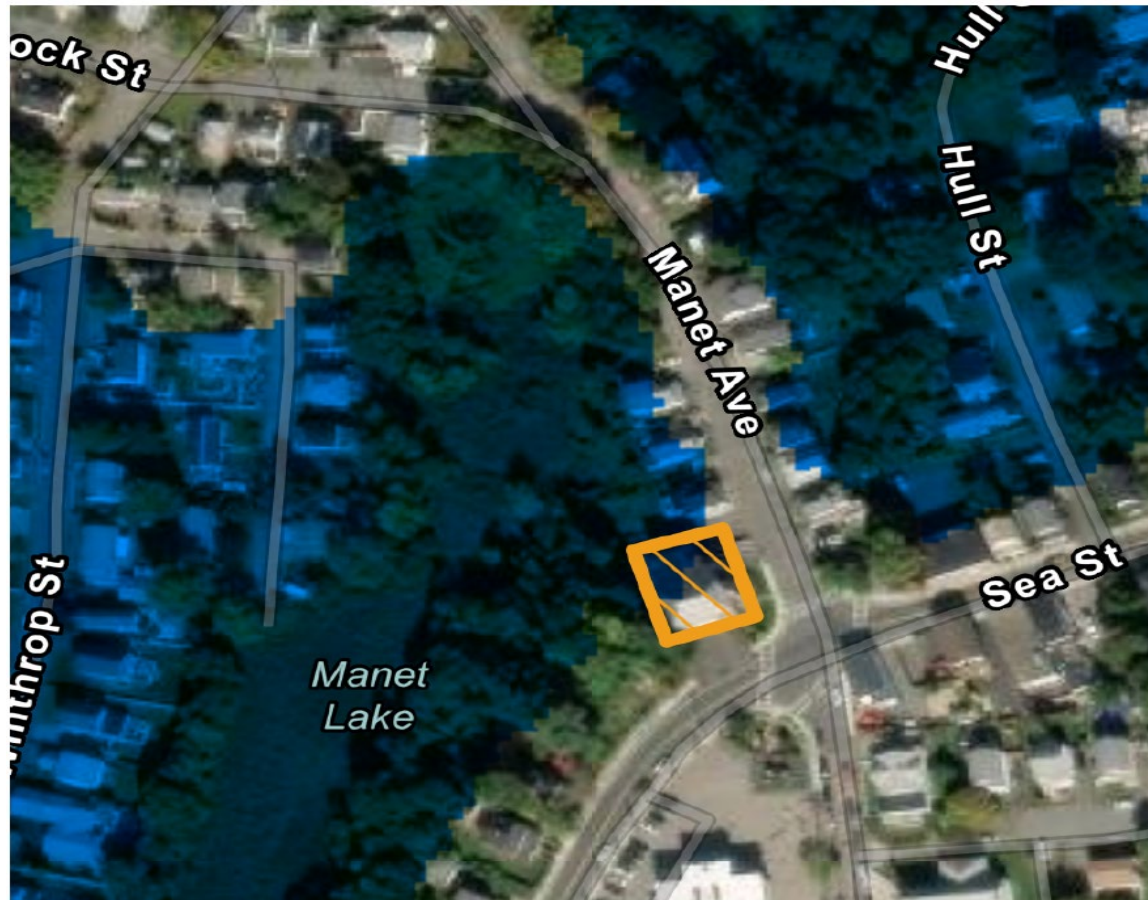
Projects located in the FFRMS floodplain should be designed consistent with the applicable policies and directives of the agency taking or approving the action.



FEMA

FFRMS Floodplain (left) vs. National Flood Hazard Layer (right)

2080 Project Location



FEMA



New Streamlining Measures – Effective September 9, 2024

- Updated public notice requirements by explicitly allowing use of the internet!
- Monetary threshold changes for Public Assistance Projects:

	Disasters declared before 09/09/2024	Disasters declared on or after 09/09/2024
Exempt from 8-step review	Projects under \$5,000	Projects under \$18,000
Minimal 8-step review (subject to steps 1, 4, 5, and 8)	Projects between \$5,000 and \$25,000	Projects between \$18,000 and \$91,000
Abbreviated 8-step review (subject to steps 1, 2, 4, 5, and 8)	Projects above \$25,000 and up to \$100,000	Projects above \$91,000 and up to \$364,000
Full 8-step review	Projects above \$100,000	Projects above \$364,000



FEMA Region 1 FFRMS Contacts

Katie Rand [presenting today]

Senior Floodplain Management/FFRMS Specialist

Floodplain Management & Insurance Branch

202-706-0627, katie.rand@fema.dhs.gov

Focus: Other Federal Agencies

Karen Vale, Senior Environmental/FFRMS Specialist

Environmental & Historic Preservation Branch

202-699-0650, karen.vale@fema.dhs.gov

Focus: FEMA policies



FEMA

Reference Definitions

- **Critical Action (44 CFR 9):** Any activity 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: 1) Such as those which produce, use or store highly volatile, flammable, explosive, toxic or water-reactive materials; (2) Such as 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; (3) Such as emergency operation centers, or data storage centers which contain records or services that may become lost or inoperative during flood and storm events; and (4) Such as generating plants, and other principal points of utility lines.
- **Substantial improvement (SI) (44 CFR 9):** 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 Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988) (1) before the repair or improvement is started, or (2) if the structure or facility has been damaged and is proposed to be restored, before the damage occurred. Substantial improvement includes work to address substantial damage to a structure or facility. 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.
- **Substantial damage (SD) (44 CFR 59):** 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% of the market value of the structure before the damage occurred.

