Subject **RE: FEMA Ordinance Review**
From Buddie, Matthew <Matthew.Buddie@fema.dhs.gov>
To Erin Collins-Miles <mczoning@venturecomm.net>
Cc Stahnke, Laura <laura.stahnke@fema.dhs.gov>
Date 2023-11-14 17:05

- fema_agricultural-structures_policy-guidance_08-20-20.pdf(~2.7 MB)
- fema_floodplain-management_agriculture-accessory-structures_2020.pdf(~3.8 MB)
- TO3CERC_0856_R8__SD_Local_Officials_Toolkit_FINAL_508.pdf(~4.6 MB)
- NFIP_Sanctioned_Community_Fact_Sheet.pdf(~204 KB)

Erin-

Thanks for the update on where Marshall County is at in the adoption process. Like I said, I'll follow up with you after 11/21 to hear how the meeting went with concerned residents. Hopefully everything goes well and the county is able to move forward with adoption. Attached are the resources we discussed. The ag policy is actually two documents, first the policy itself and second is the companion document. These two are long term items to administer the county's floodplain management program. We can talk more about these, what they can and cannot be used for but generally they pertain to ag buildings and certain exemptions from normal floodplain management requirements. The third document is the local officials toolkit with lots of good info and resources that should be helpful getting things over the finish line. The fourth document is what happens if the community becomes sanctioned with the NFIP. Pay particular attention to the bottom lefthand column of the first page. Under federal law (42 U.S.C. § 4106) "*When a community is sanctioned, Federal officers and agencies are prohibited from approving any financial assistance for acquisition or construction purposes in an area of special flood hazard in the community.*" This could potential be a big impact on federal assistance.

Finally the maps are available at the FEMA Map Service Center: FEMA Flood Map Service Center | Welcome! On the main landing page click on the "search all products" which will bring up the screen below. Use the drop downs to find Marshall County and go to the "pending products" folder to find the new floodmaps and flood insurance study. After 12/21 the products in this folder will move up to the "effective products" folder and everything currently in the effective products will move down to the "historic products" folder. Hopefully that all makes sense.

I'm also looping Laura back on to this email chain. She will be coming back online in a couple months and want her to have visibility on things.

FEMA Flood Map Service Center: Search All Products

Choose one of the three search options below and optionally enter a posting date range.

Jurisdiction

State

SOUTH DAKOTA

County

MARSHALL COUNTY

Community

MARSHALL COUNTY ALL JURISDICTIC

Jurisdiction Name

Jurisdiction Name or FEMA ID

(Ex. Fairfax County-wide or 51059C)

Product ID

Product ID

(Ex. Panel Number, LOMC Case Number)

> Filter By Posting Date Range *(Optional)*

Search | Clear All Fields

Search Results for MARSHALL COUNTY ALL JURISDICTIONS

Click subscribe to receive email notifications when products are updated. If you are a person with a disability, are blind, or have low vision, and need assistance, please contact a map specialist.

Please Note: Searching All Products by county displays all products for all communities within the county. You can refine your search results by specifying your specific jurisdiction location using the drop-down menus above.

Effective Products (3)

Pending Product (21)

- FIRM Panels (17)

Please note: Searches often result in many map files listed under a given section. You can determine the Product ID for the individual map panel needed by looking at the Map Index file. The index map files have "IND" within the Product ID and appear at the start of the list. These index files show an overview of a jurisdiction and how it is subdivided into map panels with the Product ID for each panel shown.

Show 100 **entries**

Showing 1 to 17 of 17 entries

Previous 1 Next

Product ID	Effective Date	LOMC	Size	Download	View

Matt Buddie
Mitigation | FFRMS Coordinator
Mobile: (303) 842-4710

From: Erin Collins-Miles <mczoning@venturecomm.net>
Sent: Wednesday, September 20, 2023 2:39 PM
To: Buddie, Matthew <Matthew.Buddie@fema.dhs.gov>
Subject: FEMA Ordinance Review
Importance: High

Hi Matt,

I am the designated Floodplain Administrator for Marshall County, SD. I was given your information from Marc Macy as the normal contact for this step in the ordinance process is out on maternity leave. I have attached the ordinance that we have changed to make our own. I was told we would need to send this to you for review to be sure we did not remove anything that was required and to ensure that it is ready for adoption.

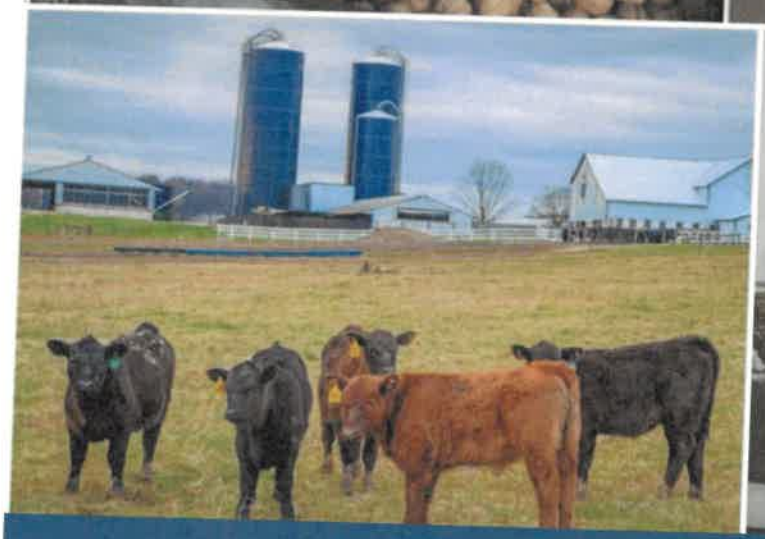
Do you guys advertise for the adoption of the ordinance? The last letter I received made it sounds as such. Let me know, thank you so much!

--

Have a great day,

Erin Collins-Miles
Planning & Zoning/E911 Addressing/Drainage Director
Marshall County
605.448.7540
PO Box 9
911 Vander Horck
Britton, SD 57430
http://marshall.sdcounties.org/




Floodplain Management Requirements for Agricultural Structures and Accessory Structures

FEMA Floodplain Management Bulletin P-2140

July 2020

FEMA

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1. Introduction

This floodplain management bulletin clarifies and refines the requirements that apply to certain agricultural structures and accessory structures proposed to be located in Special Flood Hazard Areas (SFHAs). These requirements are set forth by the Federal Emergency Management Agency (FEMA) in FEMA Policy #104-008-03: Floodplain Management Requirements for Agricultural Structures and Accessory Structures (referred to in this bulletin as "the Policy"). The Policy is included in Appendix A. This bulletin is a reference for floodplain managers and those involved in regulating, planning, designing, and constructing agricultural structures and accessory structures in SFHAs.

The regulations of the National Flood Insurance Program (NFIP) form the basis for floodplain management regulations adopted by communities that elect to participate in the program. Communities adopt floodplain management regulations to safeguard public health, safety, and general welfare and to minimize public and private losses caused by flooding.

The NFIP regulations specify requirements that apply to new construction, substantial improvement of structures, and repair of substantially damaged structures. The requirements for non-residential structures specify that those buildings must be properly elevated or dry floodproofed to or above the Base Flood Elevation (BFE). All residential structures must be elevated to or above the BFE.

The NFIP regulations do not provide explicit requirements for agricultural structures and accessory structures. Therefore, those structures are regulated as non-residential structures. However, FEMA recognizes that the inherent design and function of some agricultural structures and accessory structures may mean the structures have low damage potential and, as such, methods of flood protection other than elevation and dry floodproofing may be appropriate in some circumstances.

The NFIP regulations define **community** to include any state or area or political subdivision thereof, or any Indian tribe or authorized Tribal organization, or Alaska Native village or authorized native organization, which has authority to adopt and enforce floodplain management regulations for the areas within its jurisdiction.

The terms **agricultural structure** and **accessory structure**, and some other terms used in the bulletin, are defined in Chapter 2.

This bulletin helps readers identify agricultural structures and accessory structures for floodplain management purposes, by:

- Describing the design and construction measures that are required when new construction and substantially improved structures are wet floodproofed rather than elevated or dry floodproofed.
- Laying out the limitations on use of wet floodproofing for agricultural structures and accessory structures.

- Defining the mechanisms available to communities that elect to allow wet floodproofed agricultural structures and accessory structures are defined.
- Providing information about NFIP flood insurance coverage for agricultural structures and accessory structures.

This bulletin primarily addresses floodplain management requirements of planning, designing, constructing, and regulating agricultural structures and accessory structures. To fully understand the impacts of the various design options, property owners and farm operators should consult with:

- Local floodplain managers and building code officials
- Local planning and zoning board or officials
- Professional engineers, architects, and land surveyors
- State, tribal, and territorial NFIP coordinators
- FEMA regional offices.

Table 1 provides a "big picture" snapshot of the contents of this bulletin.

Table 1: Eligibility of Structures for Wet Floodproofing

Structure Type	Method	Considerations	Examples
Other Structures, Non-Agricultural Structures, and Other Development	BY PERMIT	Communities must issue permits in accordance with floodplain management regulations and building codes and must require residential and non-residential structures to be elevated or dry floodproofed.	▪ Residential structures ▪ Non-residential structures ▪ Pole barns, hoop houses, gazebos, shade structures ▪ Manure-holding ponds and lagoons ▪ Ponds, aquaria, and raceways without walls and roofs

Structure Type	Method	Considerations	Examples
Agricultural Structures and Accessory Structures NOT ELIGIBLE for Wet Floodproofing	BY PERMIT	Communities must issue permits in accordance with floodplain management regulations and building codes and must require residential and non-residential structures to be elevated or dry floodproofed.	▪ Not used exclusively for agricultural purposes ▪ Places of employment or entertainment (workshop, wine tasting, farm store) ▪ More than low damage potential (physical damage, contents damage, loss of function)
Accessory Structures (Small, Low Damage Potential) ELIGIBLE for Wet Floodproofing	BY PERMIT	Communities must issue permits and should adopt regulations that: ▪ Include only small, low damage potential ▪ Define accessory structures as incidental to a principal structure on the same property ▪ Specify size consistent with FEMA's recommendations ▪ Define wet floodproofing construction requirements	▪ Garden and storage sheds ▪ One-story two-car garages (A zones) ▪ 100 square feet (V zones)

Structure Type	Method	Considerations	Examples
Agriculture Structures and Accessory Structures ELIGIBLE for Wet Floodproofing*	BY VARIANCE	Communities must process requests for variances in accordance with floodplain management regulations and should adopt regulations to guide consideration of variances to specify: ▪ Agricultural structures used exclusively for agricultural purposes ▪ Low damage potential (physical damage, contents damage, loss of function) ▪ Minimal or mitigated risks and dangers to public health, safety, and welfare ▪ Wet floodproofing construction requirements	▪ Walled and roofed agricultural structures used exclusively for agricultural purposes ▪ Accessory structures larger than recommended size limits ▪ Agricultural and accessory structures that have low damage potential ▪ Agricultural and accessory structures that do not pose risks to public health, safety, and welfare (no manure storage or any volatile, toxic, or water-reactive materials)

*Or by permit, if community applies for and FEMA approves Community-Wide Exception, in which case communities must adopt regulations

1.1. The National Flood Insurance Program

The National Flood Insurance Act (NFIA), as amended (42 United States Code [U.S.C.] §§ 4001 et seq.), and 44 Code of Federal Regulations (C.F.R.) Parts 59–60 establish general rules regarding community eligibility and participation in the NFIP, community management of development in floodplains, and the availability of Federal flood insurance. A fundamental requirement is that communities must "require permits for all proposed construction or other development" to determine whether the proposed activities are within floodprone areas (44 C.F.R. § 60.3(a)(1)). Those authorities also establish the minimum design and construction standards for all structures and development in SFHAs in communities that participate in the NFIP.

1.2. Statute, Regulations, and Published Guidance that are Clarified and Refined by the Policy and this Bulletin

FEMA guidance that was published before the release of the Policy and this bulletin did not fully account for the wide range of uses and types of agricultural structures and the specificities of the agricultural industry as it has changed over the past 25 years. The Policy and the guidance in this bulletin:

- Give greater clarity on how to identify agricultural structures and accessory structures that may be approved under specific conditions to be wet floodproofed instead of requiring those structures to be elevated or dry floodproofed.
- Provide guidance on construction methods and requirements when wet floodproofing is allowed.
- Describe options available to communities to authorize wet floodproofing of agricultural structures and accessory structures, including issuing permits (only small accessory structures); granting variances on a case by case basis; or by seeking FEMA approval of a community-wide exception that allows issuing permits rather than case-by-case variances.

Following the guidance in this bulletin and FEMA Policy #104-008-03 satisfies only the NFIP floodplain management requirements.

Credits or reductions in NFIP flood insurance premiums **may not be provided** when agricultural structures and accessory structures are wet floodproofed in accordance with this guidance.

Appendix B includes a table that briefly describes some of the FEMA guidance documents cited in this bulletin, the NFIP statute, and pertinent NFIP regulations as they relate to agricultural structures and accessory structures. The table describes clarifications and refinements embodied in the Policy and this bulletin. This reference will assist those who want to compare previous guidance to the guidance in this bulletin. Appendix D lists full titles and links to download referenced publications.

2. Definitions of Agricultural Structures and Accessory Structures

This chapter provides key definitions and terms used in this bulletin and the Policy. Specific definitions for agricultural structures and accessory structures for floodplain management purposes are included, along with examples and decision charts to help floodplain managers and others apply the definitions. Differences and similarities between agricultural structures and accessory structures are illustrated.

2.1. Key Definitions and Terms

The NFIP regulations (44 C.F.R. § 59.1) define many terms, while various FEMA guidance publications define and describe other terms. Key definitions and terms used in this bulletin are defined and described in this section; the definition for "agricultural structure" is in Section 2.1.9; and the definition for "accessory structure" is in Section 2.4.

2.1.1. BASE FLOOD ELEVATION (BFE)

The BFE is the computed elevation to which floodwater is anticipated to rise during the Base Flood. The Base Flood is the flood having a one percent chance of being equaled or exceeded in any given year.

- Where FEMA has performed detailed studies, flood insurance studies include detailed information and flood insurance rate maps (FIRMs) show BFEs.
- Where FEMA has not performed detailed studies, FIRMs do not show BFEs and communities must determine whether they can use information from other sources to regulate development in SFHAs.

2.1.2. DEVELOPMENT

For floodplain management purposes, development means any manmade change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials. NFIP communities are required to regulate development in SFHAs. The term includes structures and buildings. Many construction projects associated with agriculture and aquaculture are development, even if they do not meet the definition of "structure" shown below; examples include livestock pens, open fish tanks and raceways, temporary tents or shade structures, and pole barns.

2.1.3. DRY FLOODPROOFING

Dry floodproofing is a combination of measures that results in structures, including attendant utilities and equipment, being watertight with all elements substantially impermeable to the entrance of floodwater and with structural components having the capacity to resist flood loads.

2.1.4. LOW DAMAGE POTENTIAL

FEMA does not establish a precise definition of the term "low damage potential." Property owners, farm operators, and local officials should consider various elements that contribute to damage potential when evaluating whether wet floodproofing measures are acceptable for new agricultural structures and accessory structures, and substantial improvement or repair of substantial damage of those structures, instead of elevation and dry floodproofing. At least three elements of flood-related damage should be considered:

- **Physical Damage.** In general, the amount of physical damage incurred by a structure increases as the depth of floodwater increases. Similarly, the amount and type of damage incurred increases when floodwater is fast moving (high velocity) or has waves. Flooding also saturates building materials, which may mean materials have to be replaced. Inundated mechanical and electrical equipment may not be easily repaired. Another component of physical damage is caused by floodborne debris impacts, which also increase as velocity increases and when waves are breaking waves. A damaged wet-floodproofed building might contribute debris to floodwater, which could damage nearby buildings. In general, the greater the replacement cost of the portion of a structure that is exposed to flooding, the greater the cost to repair or replace damaged elements.

- **Contents Damage.** The value/type of content is another element to consider when evaluating damage potential. Structures permitted to be wet floodproofed are designed to flood, which means contents of those structures will get wet unless owners take action to relocate the contents before the onset of flooding.

- **Loss of Function.** Two additional elements to consider when evaluating damage potential is how a structure is used and how long it may be out of service if damaged by flooding.

2.1.5. LOWEST FLOOR

The lowest floor means the lowest floor of the lowest enclosed area of a structure, including a basement. Any NFIP-compliant unfinished or flood-resistant enclosure below an elevated building that is used solely for parking of vehicles, building access, or storage (in an area other than a basement) is not considered the lowest floor. The most obvious NFIP requirements for buildings in SFHAs are raising lowest floors to or above the BFE in flood zones identified as A zones (A, AE, A1-30, AH, AO, A99, and AR) and elevating the bottom of the lowest horizontal structural member of the lowest floor to or above the BFE in flood zones identified as V zones (V, VE, V1 30, and VO). In A zones, non-residential buildings may be dry floodproofed to or above the BFE. Flood zones are described in Section 3.1.

2.1.6. SPECIAL FLOOD HAZARD AREA (SFHA)

The SFHA is the land in the floodplain that is subject to a flood that has a one percent or greater chance of flooding in any given year, called the Base Flood. SFHAs shown on FIRMs are areas where NFIP floodplain management regulations must be enforced and the Federal requirement for federally

regulated and insured lenders to require purchase of flood insurance applies. "SFHA" and "floodplain" are used interchangeably in this bulletin. Examples of FIRMs and flood zone designations are shown in Section 3.1.

2.1.7. STRUCTURE

For floodplain management purposes, a structure is a walled and roofed building that is principally above ground, where walled is considered "two or more outside rigid walls" and roofed is "a fully secured roof." The term includes gas and liquid storage tanks and manufactured homes. The terms "structure" and "building" are used interchangeably in the NFIP regulations and this bulletin. Floodplain managers must use professional judgement to determine which proposed development projects are "walled and roofed," and thus regulated as structures, and which proposed projects are regulated as development. Examples of walled and roofed structures are shown in Section 2.3, and examples of development including structures that do not have walls and structure that do not have roofs are included in Section 2.5.

2.1.8. WET FLOODPROOFING

Wet floodproofing is the use of flood damage resistant materials and construction techniques to minimize flood damage to structures by intentionally allowing floodwater to enter and exit automatically (without human intervention) to minimize unequal pressure of water on walls (called hydrostatic load or pressure). Wet floodproofing also requires structures to be anchored to resist flooding, have mechanical and utility equipment elevated or protected, and have flood openings installed in walls. Construction requirements for wet floodproofing are outlined in Section 3.2.

Use of **wet floodproofing measures** for flood protection is limited to:

- Enclosures used solely for parking, building access, or storage below elevated buildings
- Historic structures and functionally dependent uses (both defined by the NFIP), when authorized by variances
- Agricultural structures and accessory structures when communities authorize those structures in accordance with this bulletin.

2.1.9. FLOODWAY

The floodway is the channel of a river or other watercourse and the adjacent land areas that must be reserved to discharge the base flood without cumulatively increasing the water surface elevation of the base flood by more than a designated height.

In general, floodwater is deeper and flows faster in floodways than in adjacent floodway fringe areas. When feasible, development and structures should be located outside of floodways.

2.1.10. VARIANCE

The NFIP regulations define variance as a grant of relief by a community from the terms of a floodplain management regulation.

2.1.11. REPETITIVE LOSS STRUCTURES (RLS)

Repetitive loss structure is a structure covered by an NFIP flood insurance policy that has incurred flood-related damage on two occasions during a 10-year period ending on the date of the event for which the second claim is made, in which the cost of repair, on average, equaled or exceeded 25 percent of the value of the structure at the time of each flood event.

2.1.12. SUBSTANTIAL DAMAGE (SD) AND SUBSTANTIAL IMPROVEMENT

Substantial damage is damage of any origin 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. Structures that incur substantial damage must be brought into compliance with the requirements for new construction.

Substantial improvement is any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the start of construction of the improvement. Structures that are substantially improved must be brought into compliance with the requirements for new construction.

2.2. Definition of Agricultural Structure for Floodplain Management Purposes

2.2.1. AGRICULTURAL STRUCTURES

For floodplain management purposes, "agricultural structures" are structures that are used exclusively for agricultural purposes or uses in connection with the production, harvesting, storage, raising, or drying of agricultural commodities and livestock. Some structures used for aquaculture are considered agricultural structures (see Section 2.3.2). Structures used for human habitation and those that are places of employment or entertainment, and structures with multiple or mixed purposes, do not satisfy the "exclusive use" requirement described below and are not agricultural structures.

Section 2.3 includes a decision chart and examples to help floodplain managers and others determine whether proposed projects qualify as agricultural structures. Structures that are not agricultural structures (or accessory structures, see Section 2.4) must be designed and constructed to meet or exceed the NFIP requirements for structures in SFHAs. The differences and similarities between agricultural structures and accessory structures are illustrated in Section 2.6.

2.2.2. AGRICULTURAL COMMODITIES

For the purposes of this bulletin, the term "agricultural commodities" means agricultural goods, products, commodities, and livestock. Examples of agricultural commodities include, but are not limited to, harvested crops, aquaculture products, livestock, and animal products. Floodplain managers should use professional judgment when deciding whether contents of agricultural structures are agricultural commodities.

2.2.3. AGRICULTURAL PURPOSES OR USES ("EXCLUSIVE USE")

For the purposes of this bulletin, the term "agricultural purposes or uses" refers to using agricultural structures exclusively in connection with the production, harvesting, storage, raising, or drying of agricultural commodities and livestock. Structures that house tools or equipment used in connection with these purposes or uses are also considered to have agricultural purposes or uses.

Because agriculture is an industry and therefore farms are places of work, it is understood that entry into agricultural structures is necessary. The "exclusive use" limitation is satisfied when the principal use of an agricultural structure does include occupation by people over extended periods of time (e.g., office or communal area for farm workers). Processing and production of agricultural commodities outside of harvesting, storage, raising, or drying are not considered agricultural purposes or uses, Examples of other processing and production activities include distilling, brewing or fermenting beverages, baking or cooking, leather tanning, packaging, and similar production processes. Structures used for those processes are places of employment and are not agricultural structures for the purposes of this bulletin.

Human habitation, such as a permanent or temporary residence or seasonal living quarters for workers, is not considered an agricultural purpose or use.

2.2.4. NON-AGRICULTURAL STRUCTURES

Some buildings and structures are related to agricultural purposes and uses, but do not meet all the criteria to be considered agricultural structures for floodplain management purposes. This bulletin refers to structures that are not agricultural structures as "non-agricultural structures." Section 2.3 includes a decision chart and examples to help floodplain managers and others determine whether proposed projects are non-agricultural structures or agricultural structures. Non-agricultural structures must be designed and constructed to meet the NFIP requirements for structures in the SFHA, briefly described in Section 3.1.

Structures with mixed uses, where one or more use is not exclusively agricultural, are not agricultural structures for floodplain management purposes.

2.3. Applying the Definition for Agricultural Structures

This section applies the definition for agricultural structure and related terms, described in Section 2.1.9, to illustrate examples of agricultural structures, non-agricultural structures, and agricultural development. Figure 1 is a decision chart to help floodplain managers and others determine whether proposed projects qualify as agricultural structures. Chapter 4 describes options communities have for considering and granting variances with specific conditions to allow wet floodproofed agricultural structures without requiring compliance with the elevation or dry floodproofing requirements.

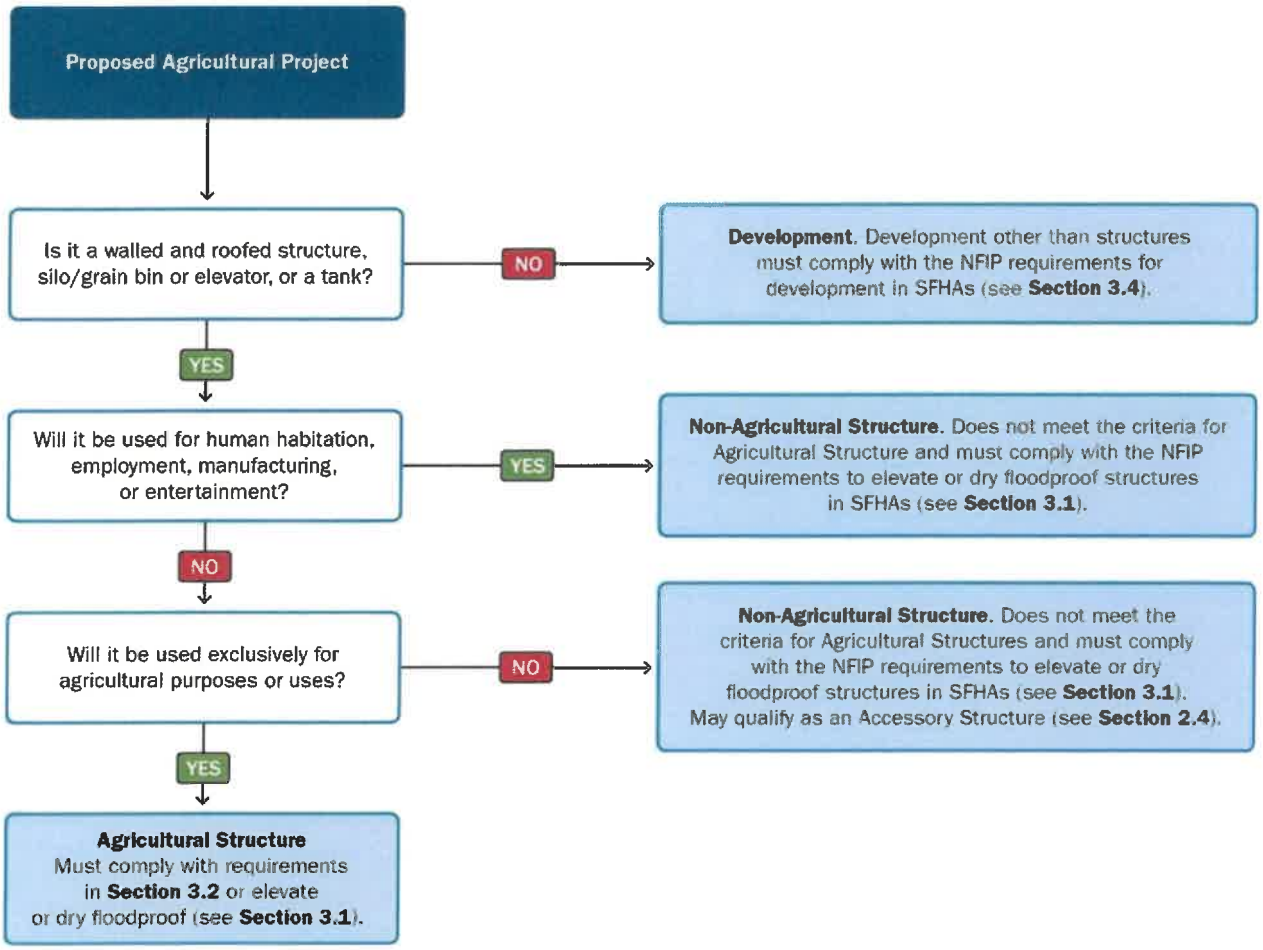


Figure 1: Determining When A Proposed Project Is an Agricultural Structure

2.3.1. EXAMPLES OF AGRICULTURAL STRUCTURES

The structures shown in Figure 2 and Figure 3 are examples of agricultural structures that are within the scope of this bulletin, because they are walled and roofed and are used exclusively in connection with agricultural purposes. Whether these agricultural structures may be wet floodproofed depends on other factors, described in Section 4.3. Structures that are not agricultural structures are subject to the floodplain management requirements described in Section 3.1, and the requirements for development in SFHAs are described in Section 3.4.

Figure 2: Agricultural Structure for Equipment and Storage, with Flood Openings (*Source: Steve Samuelson, Kansas NFIP Coordinator*)

Figure 3: Horse Barn with Storage

Silos and Grain Elevators

Silos are towers that store grain and silage, and grain elevators are towers with interior mechanisms to move grain. For floodplain management purposes, silos and grain elevators are agricultural structures with rigid walls and roofs (see Figure 4). A variety of materials and construction methods are used for these structures. Section 3.1 describes several factors to consider when determining how best to protect silos and grain elevators and their contents from flood damage.

Figure 4: Welded-Seam Silo (Left) May Be Watertight; Bolted-Plate Silo (Right) Is Not Watertight

Fuel, Gas, and Liquid Storage Tanks

Aboveground and underground fuel, gas, and liquid storage tanks exposed to flooding may be dislodged if they are not installed to account for flood forces (see Figure 5). Options for installing tanks in SFHAs are described in Section 3.1.

Because of risks to public health, safety, and welfare, locate tanks used to store fuel, gas, and water-reactive or hazardous chemicals outside of SFHAs where feasible. Otherwise, design tanks with extra precautions to minimize risks, such as elevating higher than the BFE.

Gas and liquid storage tanks are not insurable structures under NFIP flood insurance policies.

Figure 5: Buoyancy Forces Dislodged Two 10,000-Gallon Underground Fuel Tanks

2.3.2. EXAMPLES OF AQUACULTURE STRUCTURES

Aquaculture involves the cultivation of aquatic organisms, such as fish, shellfish, plants, and algae, in all types of water under controlled or semi-controlled conditions. For floodplain management purposes, FEMA considers aquaculture to be farming that is conducted in water. Therefore, the definition for agricultural structures includes aquaculture structures.

Figure 6 shows aquaculture taking place on land, with tanks and related equipment in a walled and roofed structure. This type of structure meets the definition for agricultural structure and thus is subject to the same requirements applied to agricultural structures.

Processing facilities for aquaculture products are places of employment and are not agricultural structures for floodplain management purposes and this bulletin. Processing facilities must be elevated or dry floodproofed to meet the NFIP minimum requirements for non-residential structures based on flood zone (see Section 3.1).

Other structures and development associated with aquaculture, such as fabric tents, covers, and enclosures; ponds and open aquaculture tanks/pools, aquaria, and raceways; and other structures without walls and roofs, are development and subject to the floodplain management requirements described in Section 3.4.

Figure 6: Agricultural Structure Housing Aquaculture Tanks and Equipment (*Source: USDA Agricultural Research Service*)

2.3.3. EXAMPLES OF NON-AGRICULTURAL STRUCTURES

Non-agricultural structures are structures that may be related to agriculture or located on farms but do not meet the definition of agricultural structure for the purposes of floodplain management and therefore are not eligible for wet floodproofing. The structures shown in Figure 7 through Figure 10 are examples of non-agricultural structures. When proposed to be located in SFHAs, these and similar non-agricultural structures must be elevated or dry floodproofed (see Section 3.1). Examples include:

- Structures that relate to agricultural purposes or uses but are not used exclusively for agricultural purposes
- Structures with mixed uses where one or more uses are not purely agricultural, such as a barrel storage room that is also used as a tasting room or a barn that has office space or is used for entertainment or private parties
- Structures that are places of employment
- Dwellings and other structures used for human habitation, including worker dormitories.

Figure 7: Agricultural Equipment and Supply Store

Figure 8: Apple Farm, Cider Mill, and Farm Goods Store Open to the Public

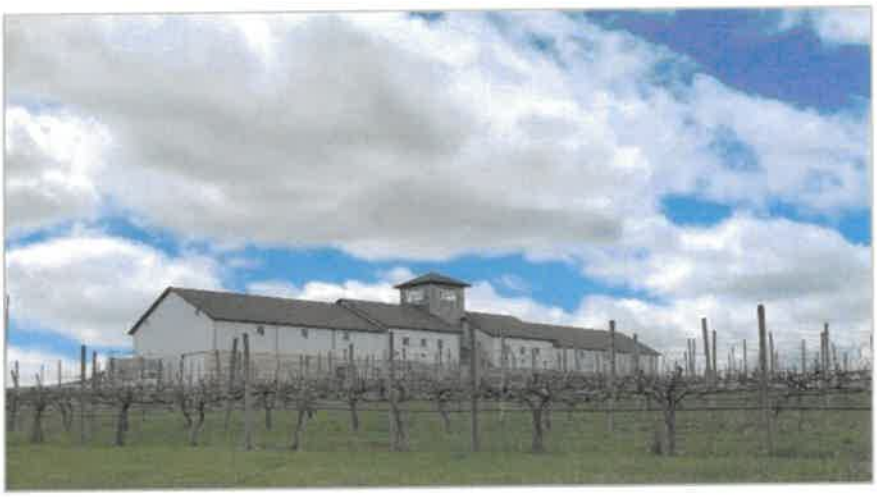


Figure 9: Winery Building with Tasting Room Used for Entertainment Purposes

Figure 10: Structure Used for Processing Nuts

2.3.4. EXAMPLES OF AGRICULTURAL AND AQUACULTURE DEVELOPMENT

Structures that are related to agricultural uses but are not agricultural structures for floodplain management purposes are regulated as development (defined in Section 2.1). Examples include livestock pens (may be walled but not roofed), pole barns and livestock shelters (roofed but not walled), and holding ponds or lagoons. Similarly, structures that are related to aquaculture uses but are not agricultural structures are regulated as development.

Figure 11 and Figure 12 show examples of agricultural development. The NFIP requirements for development other than buildings and structures are summarized in Section 3.4. Farmers and farm operators planning to pursue agricultural development in SFHAs, and owners and operators of aquaculture facilities planning to pursue aquaculture development in SFHAs, should consult with

local floodplain managers and appropriate state, tribal, or territorial authorities to discuss requirements.

Figure 11: Round, Unroofed Manure Storage (*Source: Tim McCabe, USDA National Agricultural Library – 2011*)

Figure 12: Pole Barn Without Walls (*Source: USDA Agricultural Research Service*)

2.3.5. GREENHOUSES

Greenhouses may be made with a variety of materials, including glass roofs and walls, light-transmitting rigid plastic or fiberglass roofs and walls, framing with transparent coverings, or combinations of those materials. When proposed to be located in SFHAs, greenhouses with flexible material forming the sides (see Figure 13) and those that are not walled and roofed are not

considered structures for floodplain management purposes related to wet floodproofing requirements. However, they are floodplain development and must meet NFIP development requirements (see Section 3.4).

Greenhouses with rigid walls should be elevated, dry floodproofed, or wet floodproofed in accordance with the requirements applicable to agricultural structures described in Section 3.2.

Figure 13: Greenhouse with Flexible Sides and Removable "Roof"

2.4. Definition of Accessory Structure for Floodplain Management Purposes

2.4.1. ACCESSORY STRUCTURES

For floodplain management purposes, accessory structures are structures that are on the same parcel of property as a principal structure, the use of which is incidental to the use of the principal structure. For floodplain management purposes, accessory structures must be used for parking or storage, be small and represent a minimal investment by owners, and have low damage potential (described in Section 2.1). FEMA considers size limits based on flood zone, where "small" means not larger than a one-story two-car garage in flood zones identified as A zones (A, AE, A1-30, AH, AO, A99, and AR) and not larger than 100 square feet in flood zones identified as V zones (V, VE, V1 30, and VO). Examples of small accessory structures include, but are not limited to, detached garages, storage and tool sheds, and small boathouses.

- **Structure Size.** The footprint of a typical two-car garage is about 600 square feet in area.
- **Limited Storage.** Contents stored in wet floodproofed structures will get wet during flooding. Some communities specify "limited storage."

Many structures that may be considered accessory in nature under local zoning ordinances and other regulations are not accessory structures for floodplain management purposes because they are not used only for parking or storage. Development or structures that are not accessory structures for floodplain management purposes must be designed and constructed to meet or exceed the NFIP requirements for development or buildings in SFHAs (see Section 3.4 and Section 3.1, respectively). Examples of structures and development that are accessory in nature but are not accessory structures for floodplain management purposes include:

- Structures for which any part is used for human habitation
- Detached garages and carriage houses with a portion used as an apartment or a guest house (whether as a permanent residence or temporary living quarters)
- Structures used for employment and those accessible by the public
- Structures used for entertainment (such as workshops, recreational rooms, or game rooms)
- Gazebos, pergolas, and carports that are not walled and roofed.

The differences and similarities between agricultural structures and accessory structures are illustrated in Section 2.6.

2.4.2. STRUCTURES THAT ARE NOT ACCESSORY STRUCTURES

Structures that are not accessory structures as defined in this section must be designed and constructed to meet the NFIP requirements for structures in SFHAs (briefly described in Section 3.1). When a parcel of land has only one structure, that structure is the principal structure, even if it would otherwise meet the definition for accessory structure based on size and use. In these cases, the structures must be elevated or dry floodproofed, unless owners apply for and are granted variances to allow the structures to be wet floodproofed.

2.5. Applying the Definition for Accessory Structure

This section applies the definition for accessory structure and related terms to several examples to illustrate the difference between accessory structures, structures that are not accessory structures, and development. The decision chart in Figure 14 may help floodplain managers and others determine whether proposed projects qualify as accessory structures. Chapter 4 describes options communities have for issuing permits for small wet floodproofed accessory structures and for granting variances with specific conditions to allow larger wet floodproofed accessory structures, rather than requiring compliance with the elevation or dry floodproofing requirements.

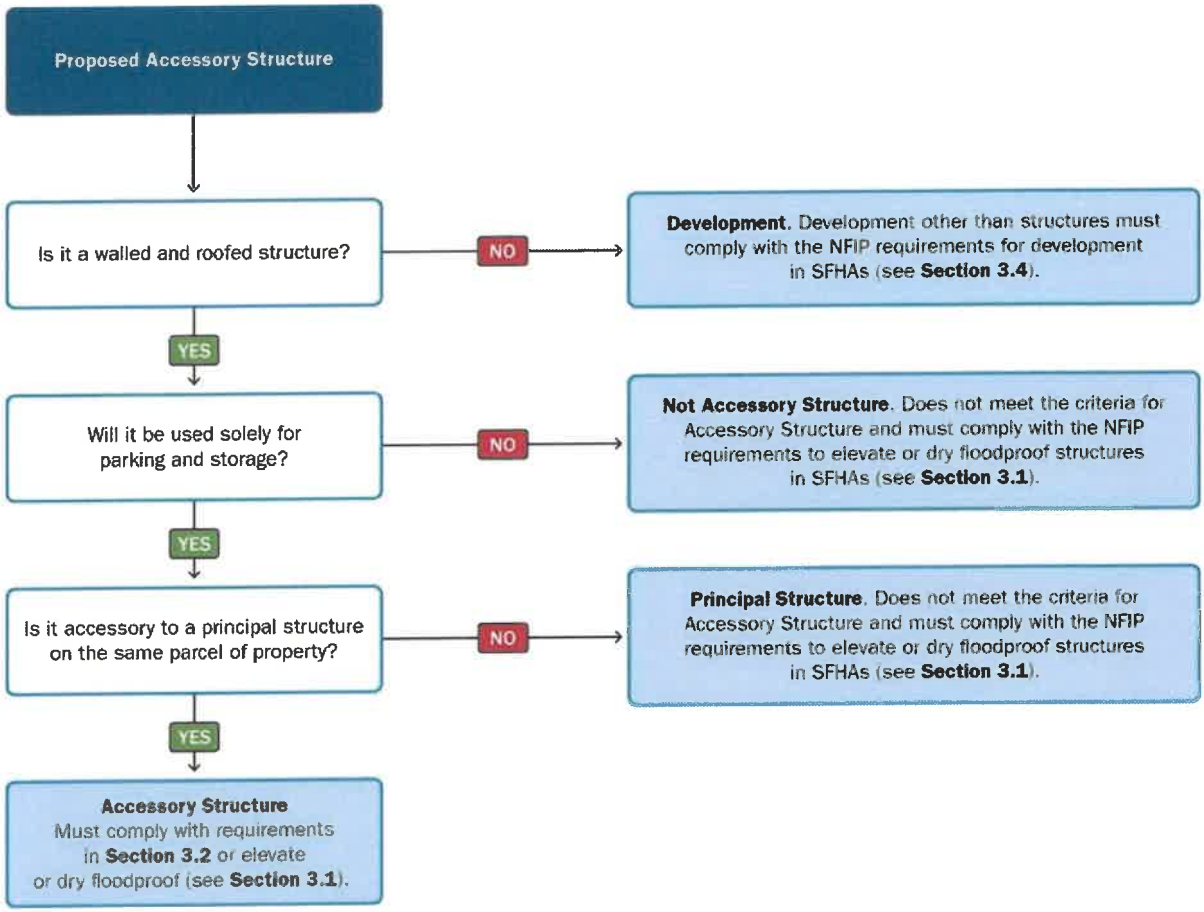


Figure 14: Determining When a Proposed Project Is an Accessory Structure

2.5.1. EXAMPLES OF ACCESSORY STRUCTURES

The structure shown in Figure 15 is an accessory structure because it is walled and roofed; located on the same parcel of property as a principal structure and is incidental the principal structure; small with low damage potential; and used for storage or parking.

Figure 15: Storage Shed, with Flood Openings (*Source: Kevin Wagner, Maryland Department of the Environment*)

2.5.2. EXAMPLES OF NON-ACCESSORY STRUCTURES AND DEVELOPMENT

Some structures are incidental or related to the primary structure on a parcel, but are not accessory structures for floodplain management purposes (defined in Section 2.4). These structures must be designed and constructed in accordance with floodplain management requirements based on whether the structure is residential, non-residential, or development (not walled and roofed).

The structure shown in Figure 16 is not an accessory structure as defined in this bulletin.

Figure 16: Elevated Accessory Residential Structure, with Enclosure

When an accessory dwelling is proposed, it must be regulated as a residential structure, and enclosures below the elevated dwelling must comply with the use limitations and construction requirements for enclosures. Figure 17 shows an example of development that is not walled and roofed.

Figure 17: Accessory Development; Gazebo with Roof but No Walls

2.6. Differences and Similarities Between Agricultural Structures and Accessory Structures

An agricultural structure may be an accessory structure, and an accessory structure may be an agricultural structure. The differences and similarities between agricultural structures and accessory structures are illustrated in Figure 18. Other than use, the most significant difference is that agricultural structures are not required to be located on the same parcel of land as a principal structure. Some agricultural structures may be the principal structure or only structure on the parcel. If a proposed project meets the definitions and use requirements of both agricultural structures and accessory structures, local officials may choose whether to regulate the structure as an agricultural structure or an accessory structure.

For floodplain management purposes, agricultural structures and accessory structures have separate definitions (see Section 2.1.9 and Section 2.4), but they are not mutually exclusive. A structure could be agricultural, accessory, or both.

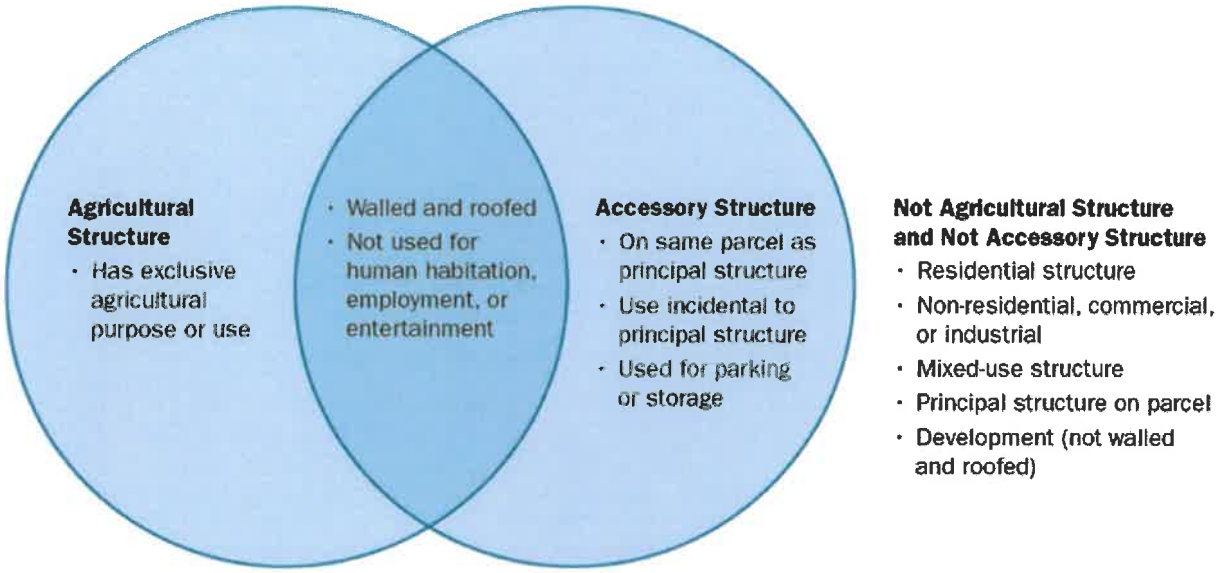


Figure 18: Differences and Similarities Between Agricultural Structures and Accessory Structures

3. Floodplain Management Requirements for Agricultural Structures and Accessory Structures

Communities that participate in the NFIP agree to regulate development in SFHAs and require permits for that development. Those communities have adopted floodplain management regulations that meet or exceed the minimum requirements outlined in NFIP regulations (44 C.F.R. § 60.3). Specific requirements for structures depend on the flood zone and whether structures are residential or non-residential. Agricultural structures and accessory structures are regulated as non-residential structures.

Some states exempt agricultural structures or structures on farms from state and local building and zoning codes. This exemption does not exempt agricultural structures from floodplain management regulations administered by communities that participate in the NFIP.

FEMA recognizes that the types of construction and materials used to build many agricultural structures and accessory structures mean some of those structures inherently have low damage potential (described in Section 2.1). This differentiates these structures from other non-residential structures, such as factories, churches, retail and office buildings, and schools. Notably, post-flood recovery for most agricultural structures and accessory structures typically requires only cleaning, minor repairs, and repairs to put mechanical and electric equipment back in service.

State or local requirements that are more restrictive or stringent than the minimum requirements of the NFIP take precedence. This bulletin and other FEMA publications provide guidance on the minimum NFIP requirements and describe best practices.

Design professionals, builders, and property owners should contact local officials to determine whether more restrictive requirements apply to buildings or sites in question. All other applicable requirements of state or local building codes must also be met for buildings in SFHAs.

This chapter describes the requirements that apply to structures and development in SFHAs based on the minimum NFIP regulations and the Policy. Specifically:

- Section 3.1 summarizes the basic NFIP design and construction requirements for buildings and structures, based on flood zone, including elevation and dry floodproofing.
- Section 3.2 describes the construction requirements for wet floodproofing.
- Section 3.3 describes combining elevation with wet or dry floodproofing.
- Section 3.4 summarizes requirements for development other than buildings.

3.1. Basic Design and Construction Requirements Based on Flood Zone

FIRMs produced by FEMA depict SFHAs and insurance risk premium zones. Figure 19 and Figure 20 show examples of FIRMs with flood zone terminology:

- Areas identified as Zones A, AE, A1 30, AH, AO, A99, and AR are collectively are called Zone A or A zones.
- Areas identified as Zones V, VE, V1 30, and VO are coastal high-hazard areas that collectively are called Zone V or V zones.
- Areas identified as Zone X (shaded and unshaded, formerly identified as Zones B and C) are outside of SFHAs and not subject to floodplain management regulations.
- A Flood Insurance Study (FIS) or Flood Elevation Study (FES) is an examination, evaluation, and determination of flood hazards and, if appropriate, corresponding water surface elevations.

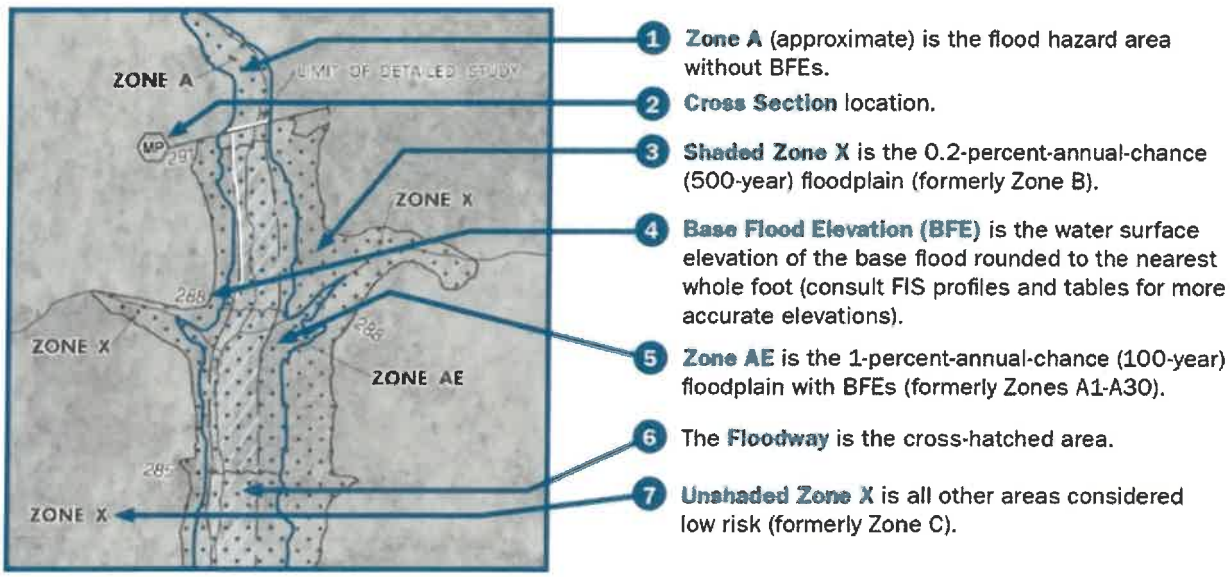


Figure 19: Example FIRM Showing Riverine Flood Zone Terminology

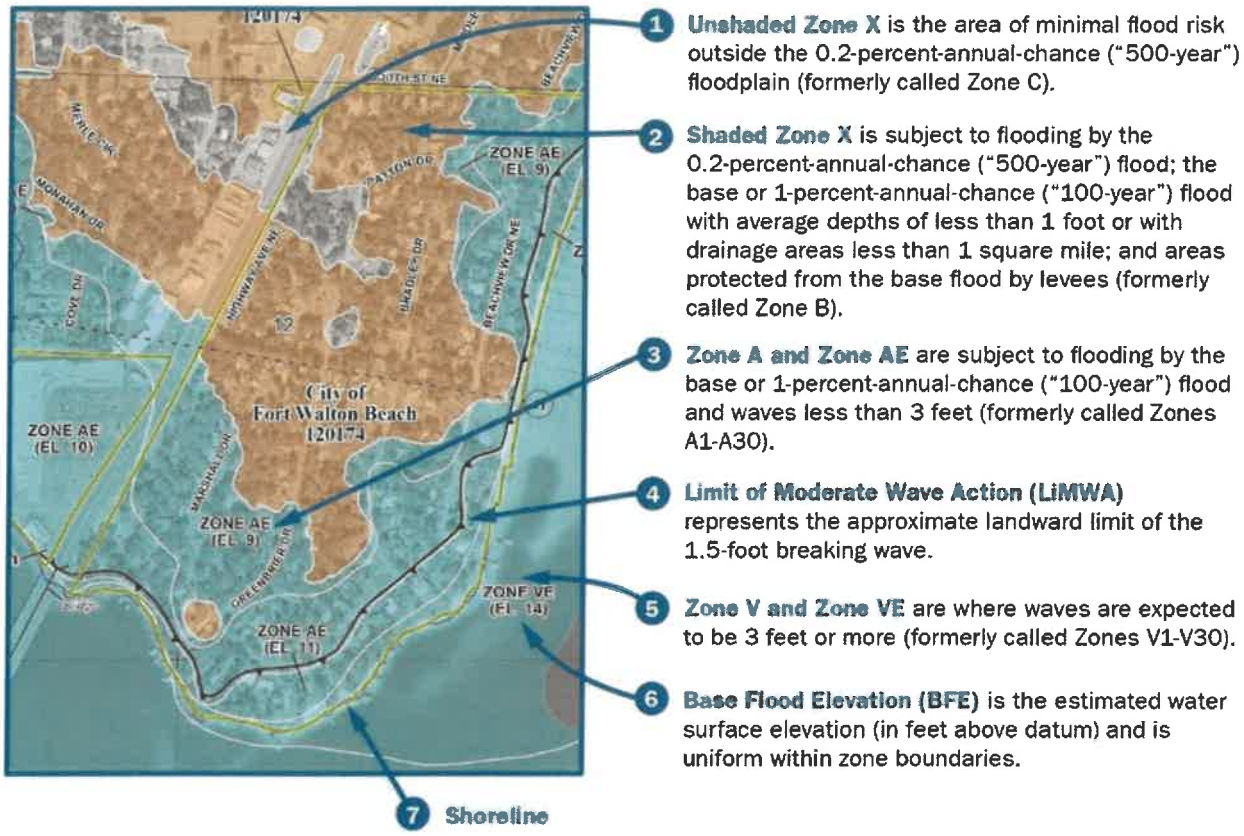


Figure 20: Example FIRM Showing Coastal Flood Zone Terminology

- **Substantial damage** is damage of any origin 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.
- **Substantial improvement** is any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the start of construction of the improvement.

Substantially damaged and substantially improved structures must be brought into compliance with the requirements for new construction.

The basic requirements for new construction in SFHAs for substantially improved structures and when structures incur substantial damage by any cause include:

- Foundations must resist flood forces.
- Flood-damage-resistant materials must be used below the BFE.
- Equipment and machinery, including electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities, must be elevated, dry floodproofed, or

specifically designed to prevent water from entering or accumulating within the components during flooding.

- Lowest floors must be elevated to or above the BFE or flood depth in all A zones (A, AE, A1-30, AH, AO, A99, and AR) (see Figure 21 and Figure 22). In all V zones (V, VE, V1 30, and VO), the bottom of lowest horizontal structural members of lowest floors must be elevated to or above the BFE.

- In all A zones, non-residential structures may be designed to be watertight (dry floodproofed) if properly designed and certified by registered professional engineers or architects. FEMA P-936, Floodproofing Non-Residential Buildings, provides guidance and design specifications for dry floodproofing.

Two standards produced by the American Society of Civil Engineers and referenced by building codes are useful:

- ASCE 24, Flood Resistant Design and Construction, a standard of practice accepted by FEMA
- ASCE 7, Minimum Design Loads and Associated Criteria for Buildings and Other Structures, the standard of practice for determining loads, including flood loads

- In all V zones, foundation design and elevation requirements are more stringent because of the added forces of wave action, and designs must be certified by registered professional engineers or architects.

- Enclosures below elevated structures must be used only for parking, storage, and building access and must have flood openings (in all A zones) or breakaway walls (in all V zones).

- If located in floodways, documentation must be provided to show the floodway encroachment provisions of the NFIP and local floodplain management regulations are satisfied.

The **floodway** is the channel of a river or other watercourse and the adjacent land areas that must be reserved to discharge the base flood without cumulatively increasing the water surface elevation of the base flood by more than a designated height.

In general, floodwater is deeper and flows faster in floodways than in adjacent floodway fringe areas. When feasible, development and structures should be located outside of floodways.

Figure 21: Three-Car Garage Elevated on Fill

Figure 22: Hog Farm Houses Elevated on Fill (*Source: Waterkeeper Alliance*)

3.1.1. SILOS AND GRAIN ELEVATORS

For floodplain management purposes, silos and grain elevators are agricultural structures with rigid walls and roofs. Several factors should be considered when determining how best to protect silos and grain elevators, and their contents, from flood damage:

- Silos that are designed to contain silage without leaking may also be watertight under flood conditions. Communities should require applications for dry floodproofed silos to include documentation prepared by registered professional engineers or architects certifying the silos will be watertight during conditions of flooding.

- Silos and grain elevators for storing grain typically are not designed to be watertight. To protect both the towers and contents, the structures must either be elevated or modified to be watertight (dry floodproofed), or a combination of those methods.

- Another option, sometimes called "component protection," is to install silos and grain elevators inside areas designed to be substantially impermeable to flooding. This technique is described in FEMA P-348, Protecting Building Utility Systems from Flood Damage, where it is suggested as a method to protect equipment or groups of equipment that serve non-residential buildings.

- Silos and grain elevators that are not watertight may be wet floodproofed to minimize structure damage (see Section 3.2). In general, this option is not viable because of the nature and value of the stored materials.

- Controls for electrified equipment should be elevated and electric service should be supplied by branch circuits that have ground fault circuit interrupter (GFCI) protection or are otherwise protected from flooding.

3.1.2. FUEL, GAS, AND LIQUID STORAGE TANKS

Figure 23 illustrates options for installing tanks in SFHAs, which vary by flood zone. Where allowed above ground, tanks can be installed on grade or elevated on platforms or fill. Underground tanks must be installed and anchored to account for saturation of surrounding soils and scour and erosion during flooding. Tanks that are above ground but not fully elevated are allowed only in A zones (A, AE, A1-30, AH, AO, A99, and AR), in which case they must be anchored to resist flood forces. Another option allowed only in A zones, sometimes called "component protection," is to install tanks inside enclosures or vaults that are designed to be substantially impermeable to flooding. This technique is described in FEMA P-348, Protecting Building Utility Systems from Flood Damage, where it is suggested as a method to protect equipment or groups of equipment that serve non-residential buildings.

Protecting other elements of tanks must also be considered:

- Fill openings, outlets, vents, and cleanouts must either be elevated above the BFE or designed to prevent the entry of floodwater and the loss of contents during flooding.

- Controls for electrified equipment should be elevated above the BFE and electric service must be supplied by branch circuits that have GFCI protection.

Tank design and options for tanks associated with non-residential uses are described in more detail in FEMA P-348, Protecting Building Utilities from Flood Damage.

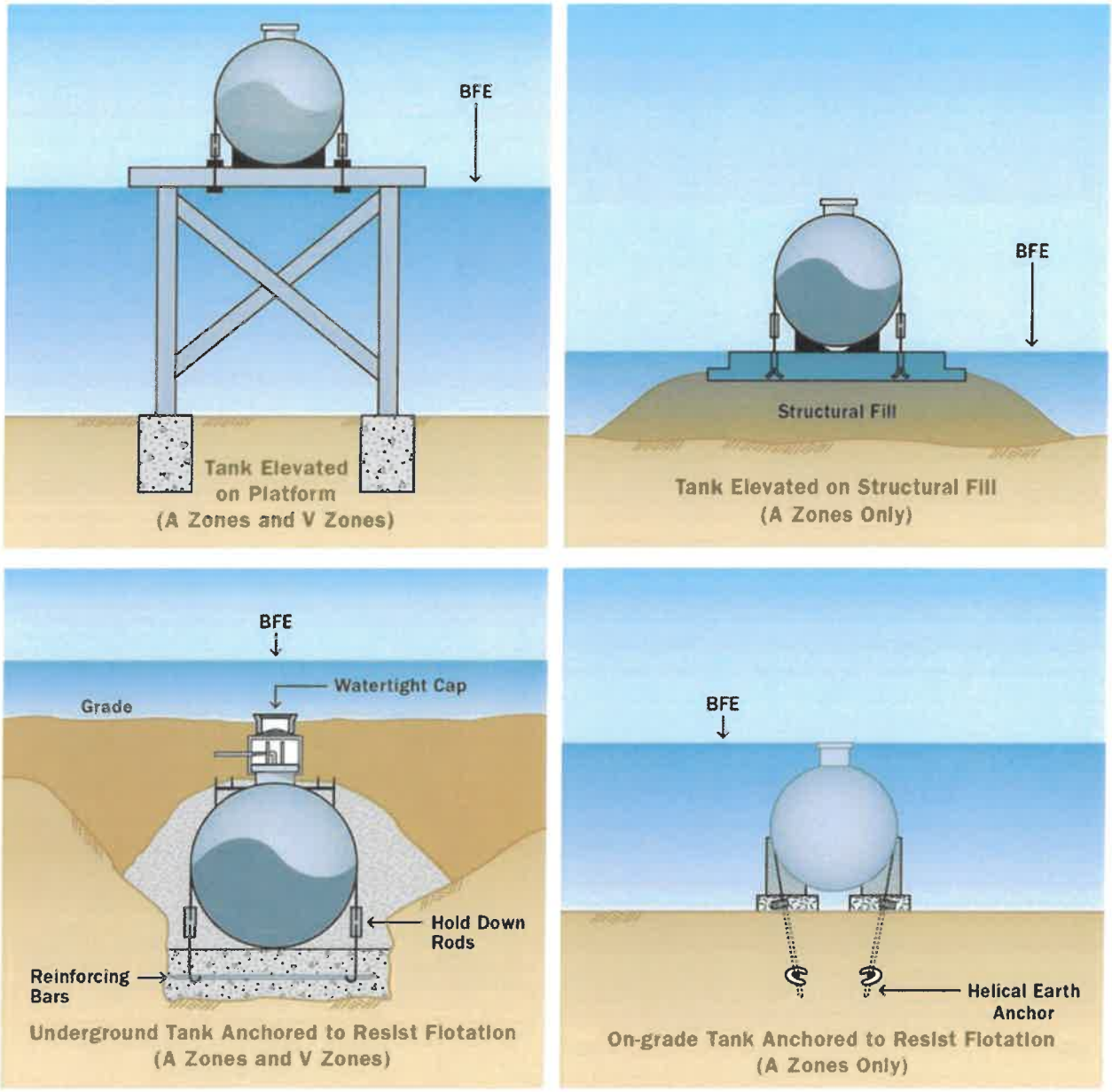


Figure 23: Options to Install Tanks Above and Below Grade

3.2. Construction Requirements for Wet Floodproofing

Wet floodproofing involves use of materials and construction techniques that allow structures or portions of structures to intentionally flood. The same wet floodproofing requirements apply to enclosures below elevated structures where the use of the enclosures is limited solely to vehicle parking, storage, and building access. Allowing floodwater to enter these areas counteracts hydrostatic pressure on walls and buoyancy from hydrostatic uplift forces. Although enclosure interiors and contents get wet, the risk of structural damage is reduced.

The NFIP minimum requirements for wet floodproofing structures are similar to the NFIP requirements for enclosures below elevated buildings:

- Wet floodproofed structures must be anchored to resist flotation, collapse, and lateral movement. During flooding, structures can be dislodged and cause damage to other buildings or block downstream culverts and bridges.

- Portions of structures below the BFE must be constructed of flood-damage-resistant materials. FEMA Technical Bulletin 2, Flood Damage Resistant Materials, includes guidance and tables that classify typical construction materials as acceptable or unacceptable for use below the BFE.

Flood-damage-resistant materials are any construction materials capable of withstanding direct and prolonged contact with floodwater without sustaining damage that requires more than cosmetic repair. Cosmetic repair includes cleaning, sanitizing, and resurfacing of the material.

- Enclosed areas must have measures that equalize hydrostatic forces on exterior walls by allowing the automatic entry and exit of floodwaters. This is accomplished by installing at least two flood openings in the walls of each enclosed area. FEMA Technical Bulletin 1, Requirements for Flood Openings in Foundation Walls and Walls of Enclosures, includes detailed guidance, examples and illustrations of flood opening installations, non-engineered openings, engineered openings, and measures that are not acceptable as flood openings.

Installing doors, panels, or covers that must be opened before the onset of flooding does not satisfy the automatic entry and exit of floodwaters criterion because human intervention is necessary.

- Basements, which are areas below grade on all sides, are not permitted. To avoid being basements, the interior floor of wet floodproofed enclosed areas must be at or above the exterior grade across an entire side and there must be positive surface drainage away from the structure.

- Mechanical and utility equipment, including electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities, must be elevated (example shown in Figure 24), dry floodproofed, or specifically designed to prevent water from entering or accumulating within the components during flooding. For additional guidance, see FEMA P-348, Protecting Building Utilities from Flood Damage.

Communities should consider implementing two best practices when approving wet floodproofing of agricultural structures and accessory structures in accordance with this bulletin:

- **Limit what is stored** in wet floodproofed areas and structures. Because contents will get wet during flooding, contents should be low-value items. Some communities specify the types of

contents that can be stored, and some prohibit the storage of hazardous materials or pollutants.

- **Require nonconversion agreements** as part of approving wet floodproofed areas and structures. These agreements, signed by applicants and property owners, affirm that owners agree not to convert or modify in any manner that is inconsistent with the approved permit (and variance conditions, when applicable). Specifically, owners agree not to convert the space to uses other than approved uses. Communities typically require nonconversion agreements to be recorded on property deeds to notify future owners.

Many communities apply these practices to enclosures below elevated buildings, which are allowed if used solely for parking, storage, and building access and if constructed in accordance with specific requirements (outlined in Section 3.1).

Figure 24: Elevated Electric Service and Equipment

3.3. Combining Elevation with Wet or Dry Floodproofing

Local floodplain management regulations for considering variances include a specific provision that variances must only be issued after the community's variance review board determines a variance is the minimum necessary to afford relief, considering the flood hazard (44 C.F.R. § 60.6(a)(4)). For example, requests to vary the elevation requirements to allow wet floodproofing should be examined to determine whether a combination of measures is feasible (sometimes called "mixed mitigation"). Elevating a structure to the maximum extent feasible and then wet floodproofing or dry floodproofing up to the BFE would provide some degree of protection while minimizing the negative impacts of the variance. Figure 25 illustrates some examples of using partial elevation achieved by combining elevation with wet or dry floodproofing, which protects structures and contents during frequent, low-level flood events.

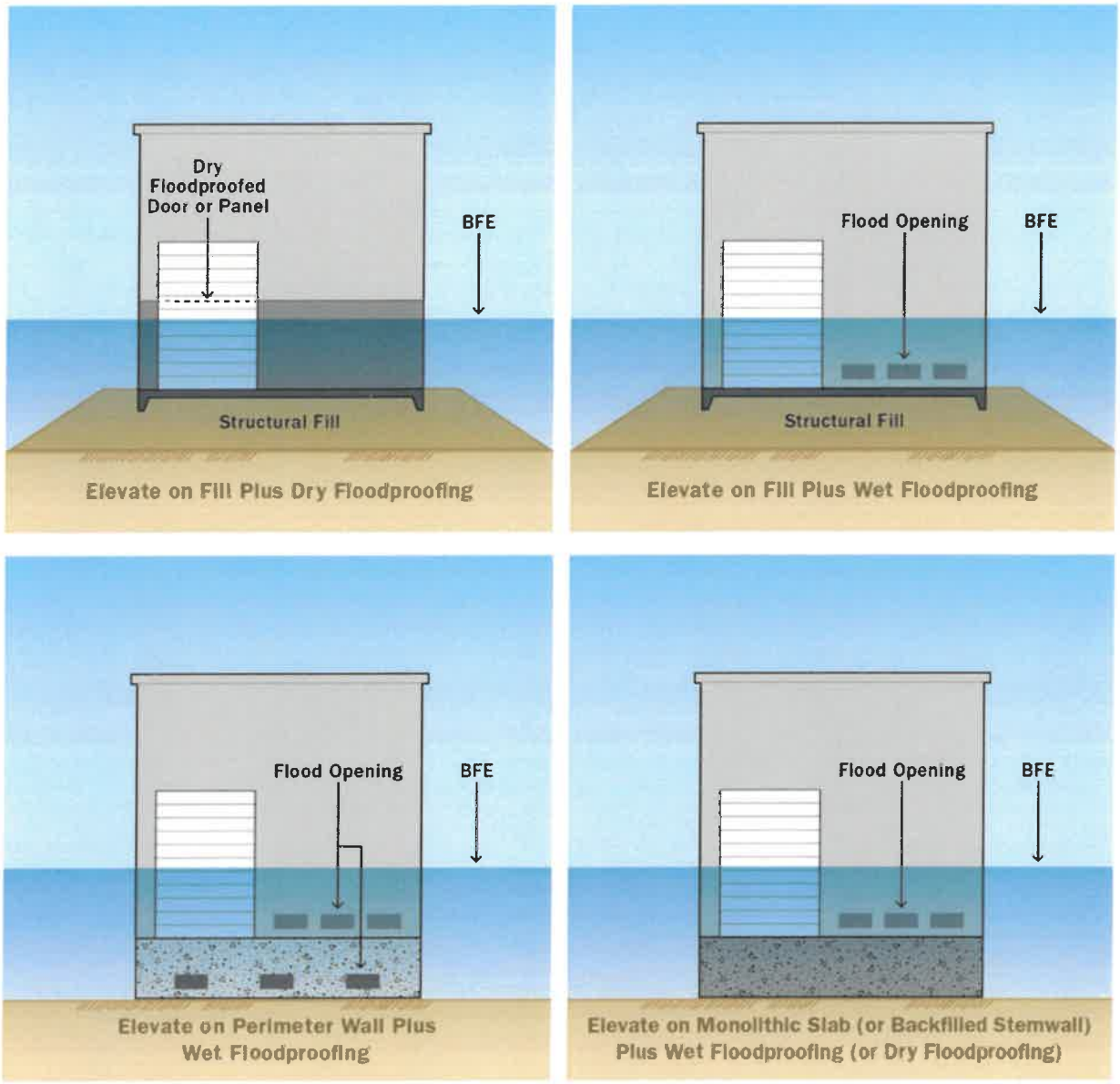


Figure 25: Combining Elevation with Wet Or Dry Floodproofing (Access Ramps Not Shown)

3.4. Requirements for Development Other than Structures

Communities must evaluate development in SFHAs in accordance with their floodplain management regulations. The general requirements that apply to development other than buildings include:

- Meet encroachment limitations if located in regulated floodways
- Be anchored to prevent flotation, collapse, or lateral movement resulting from hydrostatic loads, including the effects of buoyancy, during conditions of flooding
- Be constructed of flood-damage-resistant materials

- Have mechanical, plumbing, and electrical systems elevated or designed to prevent water from entering or accumulating within the components during flooding.

Development activities that change the land in ways that may increase flood risk include mining, dredging, filling, grading, paving, excavation, drilling operations, storage of equipment and materials, and roads. Agricultural practices such as tilling, discing, planting, spraying, fertilizing, and harvesting are not considered development for floodplain management purposes. However, installing irrigation ditches and wells, fences and berms, pond embankments, and other activities that alter the land or could obstruct flood flows are regulated as development.

Another important consideration when evaluating development proposals is whether the activity will encroach into floodways. Communities must require engineering analyses to examine the effect of floodway encroachments to determine whether flood depths would be increased if the development is allowed. In riverine floodplains where no floodway has been designated, communities must consider the cumulative effect of the proposed development, combined with all other existing and anticipated development, to ensure flood levels will not increase more than a foot at any point in the community. If a community determines it is in the public interest to allow development that increases flood heights more than the allowable amount, the community or applicant must apply to FEMA for conditional approval of such action and FEMA must issue a conditional approval before a permit can be issued. Then, after the project is completed, documentation must be submitted to FEMA so the flood maps can be updated to reflect the change in flood hazard.

Communities may determine that some projects in floodways are too small to warrant engineering analyses. For example, barbed wire and electrified wire fences do not block the flow of water, but board, woven wire, and other more solid fencing can obstruct flow and cause water to back up and rise higher than if the fences were not present.

4. Options to Authorize Wet Floodproofing of Agricultural Structures and Accessory Structures

Communities should consider the acceptable options described in this chapter for authorizing wet floodproofing of agricultural structures and accessory structures, as those structures are defined in the bulletin (see Table 2). Each community should determine which option works best, given community-specific needs. In all cases when those structures are not elevated or dry floodproofed, they must be wet floodproofed in compliance with the requirements described in Section 3.2. Model ordinance language for most options is included in Appendix C.

Table 2: Local Regulation Changes

Action Taken	Update Ordinance Language?
PERMITS for small accessory structures, wet floodproofed	SHOULD
VARIANCES for agricultural structures and accessory structures, wet floodproofed	SHOULD
COMMUNITY-WIDE exception for agricultural and accessory structures (only with FEMA approval)	MUST
PERMITS for repair or restoration of certain flood-damaged agricultural structures to pre-damage condition	MUST

For wet floodproofed **accessory structures**, communities must choose from the following options for administration of the requirements:

- Issue **permits** for small accessory structures (described in Section 4.2). FEMA considers accessory structures to be small if less than or equal to a one story two car garage (all A zones) and less than or equal to 100 square feet (all V zones).
- Grant **variances** on a case-by-case basis for accessory structures that are larger than the sizes allowed to be approved permit (described in Section 4.3).
- Issue **permits** for accessory structures, but only after obtaining FEMA approval of a community-wide exception (described in Section 0).

For wet floodproofed **agricultural structures**, communities must choose from one of the following options for administration of the requirements:

- Grant **variances** on a case-by-case basis (described in Section 4.3).
- Issue **permits** for agricultural structures, but only after obtaining FEMA approval of a community wide exception (described in Section 0).

- Issue **permits** for repair and restoration of certain previously flooded agricultural structures, but only after adopting regulations approved by FEMA (described in Section 4.5).

4.1. Ensuring Compliance and Maintaining Records

While FEMA regional offices, state, tribal, and territorial NFIP coordinators, and communities all have roles in ensuring local floodplain management regulations are properly administered and enforced, the ultimate responsibility for maintaining NFIP compliance lies with communities. Communities must maintain adequate records of permits issued and variances granted, including the supporting documentation and justification for variances.

Refer to FEMA Floodplain Management Bulletin P-993, Variances and the National Insurance Program, for guidance on variances and record keeping.

Communities must enforce the requirements of local floodplain management regulations and the conditions of permits and variances. FEMA regional offices and state, tribal, and territorial NFIP coordinators monitor and evaluate community compliance and provide technical assistance to help communities remain in good standing with the NFIP.

Communities that follow FEMA's policy and guidance for granting variances will not jeopardize their standing with the NFIP. And, specific to agricultural structures and accessory structures, communities that follow the guidance in this bulletin will remain in good standing. If FEMA determines that a community is granting variances and permitting exceptions inconsistent with policies and guidance, the community will be expected to correct all violations and deficiencies to the maximum extent practicable or risk probation or suspension from the NFIP.

Communities that participate in the NFIP must have adequate procedures for reviewing applications, processing requests for variances, inspecting structures and development approved by permits or variances, and maintaining records. Communities that are approved by FEMA for community-wide exceptions for agricultural structures and accessory structures (see Section 0) must be especially careful to maintain detailed records, including copies of notices given to owners stating the increased risks to life and property and the potential for increased flood insurance rates. FEMA recommends that the findings, conditions, and authorizations for variances be recorded in deed records to permanently notify prospective buyers and future owners of the terms of the variances.

The NFIP regulations for variances provide that FEMA may review a community's findings that justify granting variances and may place a community on probation if the review indicates a pattern inconsistent with the objectives of sound floodplain management (44 CFR § 60.6(a)).

Variances issued in accordance with and this bulletin are consistent with the objectives of sound floodplain management.

4.2. Issuing Permits for Certain Accessory Structures

Communities must follow standard procedures to review applications and issue permits for accessory structures that will be elevated or dry floodproofed in accordance with the NFIP requirements in local floodplain management regulations. Section 3.1 briefly summarizes those requirements.

Communities must follow standard procedures to review applications and issue permits for wet floodproofed accessory structures that are smaller than the size limits suggested by FEMA. Communities should adopt explicit provisions in local regulations (see model ordinance language in Appendix C, Section C.2). Before adopting changes to local regulations, proposed changes should be reviewed by state NFIP coordinators or FEMA regional offices.

Documentation of lowest-floor elevations and dry floodproofing designs must be submitted by applicants and permit holders when structures are elevated or dry floodproofed. Communities should document compliance with wet floodproofing requirements when agricultural structures and accessory structures are approved to be wet floodproofed.

Before issuing permits for small accessory structures, communities must verify:

- Use is limited to parking of vehicles or storage
- Size is less than or equal to the suggested limits based on flood zone (for example, one-story two-car garage in A zones, 100 square feet in V zones, or other size limit approved by FEMA)
- The structures have low damage potential
- The structures comply with the wet floodproofing requirements outlined in Section 3.2.

4.3. Considering Variances and Granting Variances

Every community that participates in the NFIP adopts regulations that include the general requirements for consideration of variance requests in the NFIP regulations at 44 C.F.R. § 60.6(a). When a request is received, floodplain management staff should review the request against the regulations, determine completeness of the submitted documentation, and make recommendations for consideration by the community's variance review board. Documenting the staff review in a staff report is a good practice and provides a record of the community's action.

The NFIP regulations define **variance** as a grant of relief by a community from the terms of a floodplain management regulation.

In addition to the typical standard provisions for variances (summarized in Appendix C, Section C.3), when communities receive requests to allow agricultural structures or accessory structures to be constructed in ways that vary from the strict floodplain management requirements for elevation and

dry floodproofing, additional factors must be considered. Communities should adopt explicit provisions in local regulations (see model ordinance language in Appendix C, Section C.4).

Key steps for evaluating requests for variances for agricultural structures are illustrated in Figure 26. Similar steps apply to requests for variances for accessory structures.

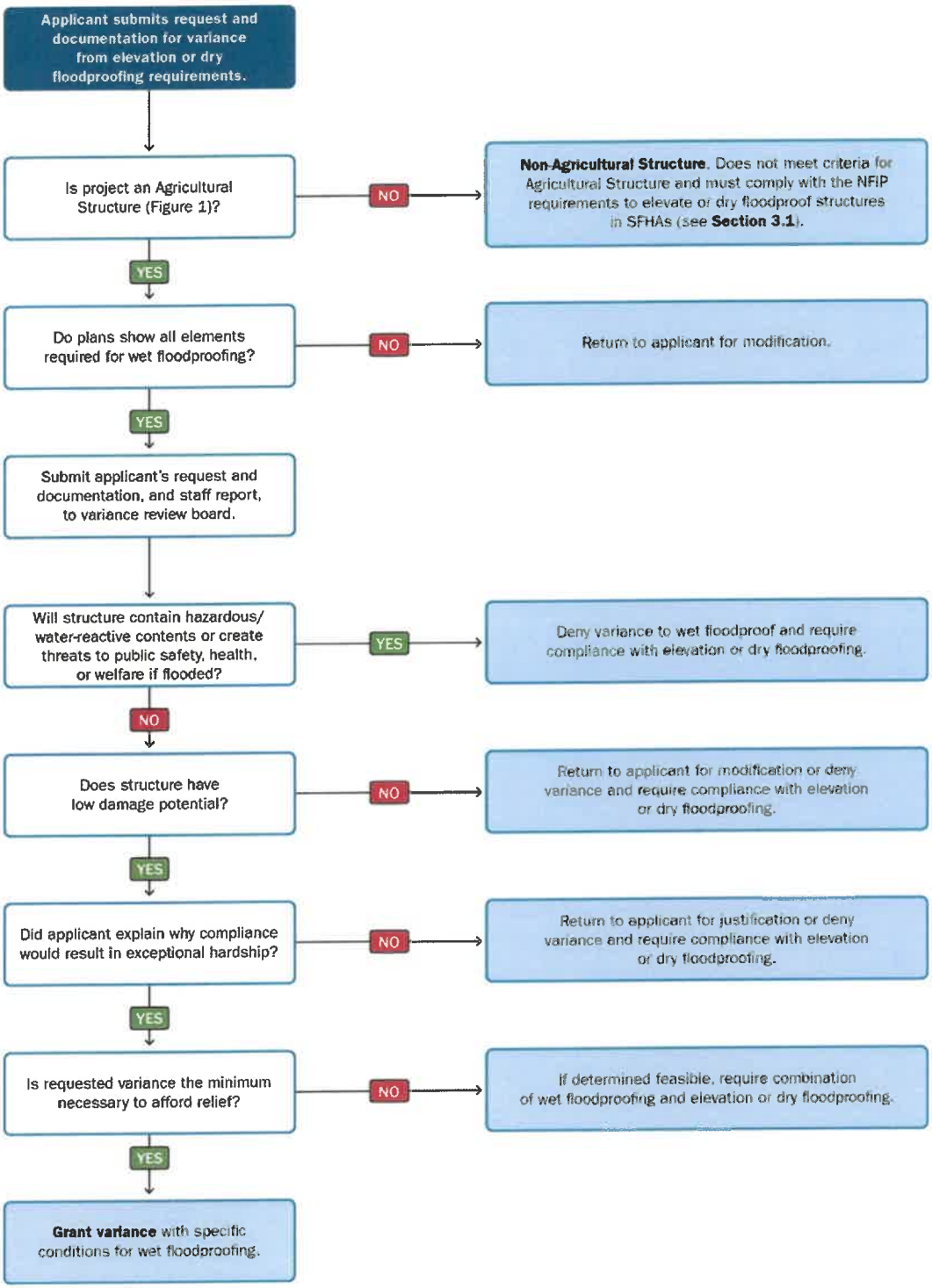


Figure 26: Key Steps for Evaluating Variance Requests for Wet Floodproofed Agricultural Structures

Additional factors to consider and determine include:

- Variances must be for individual agricultural structures or accessory structures.

- Justification must be on a case-by-case basis.
- The communities must:
  - Document the floodway encroachment provisions in local floodplain management regulations are satisfied when structures are proposed to be located in floodways.
  - Confirm that proposed:
    - Accessory structures are small, represent minimal investment, and have low damage potential
    - Agricultural structures have low damage potential, meet the exclusive use requirement, and will be restricted to such exclusive uses.
  - Verify the proposed structures will meet the following wet floodproofing design and construction requirements (see Section 3.2), including:
    - Anchored to resist flotation, collapse, and lateral movement
    - Flood-damage-resistant materials below the BFE
    - Mechanical and utility equipment elevated or dry floodproofed to or above the BFE
    - Measures to protect structures from hydrostatic pressure in accordance with the NFIP standards for flood openings to allow the automatic entry and exit of floodwaters without manual operation or the presence of a person or persons.
  - Verify that applicants include descriptions of the exceptional hardships they would experience if variances are denied.
  - Document that variances provide the minimum relief necessary, and if feasible, require consideration of combining elevation with wet floodproofing or dry floodproofing (see Section 3.3).
- Increased risks to the public. FEMA does not recommend variances for wet floodproofing instead of elevation or dry floodproofing when:
  - Agricultural structures would be located in V zones (V, VE, V1 30, and VO)
  - Agricultural structures and accessory structures that, if flooded, would create threats to public health, safety, and welfare, including but not limited to release of concentrated animal waste or highly volatile, toxic, and water-reactive materials (described in Section 4.3.2).
- Communities that participate in the NFIP Community Rating System and receive credits for freeboard (elevation or protection to a higher level than the minimum NFIP requirement)

should be aware that granting variances that allow lowest floors to be below the BFE may result in reduction of credits for freeboard.

- Floodplain management regulations adopted by many communities give variance review boards the authority to attach additional conditions to variances when deemed necessary to further safeguard public health, safety, and general welfare and to minimize public and private losses caused by flooding.

4.3.1. ADMINISTRATIVE RESPONSIBILITIES FOR VARIANCES

As part of fulfilling their responsibilities to the NFIP, communities must have mechanisms to ensure compliance with their floodplain management regulations. Permits are required for agricultural structures and accessory structures, even those authorized by variance. Communities that anticipate a large number of variance requests should include the additional factors listed above in their floodplain management regulations. Typical model ordinance language is included in Appendix C, C.4. Before adopting changes to local regulations, proposed changes should be reviewed by state NFIP coordinators or FEMA regional offices.

FEMA recommends that communities develop written procedures for evaluating requests for variances to satisfy all general requirements and the specific additional factors listed in the introduction to Section 4.3. Having written procedures also leads to uniform treatment of all variance requests. Communities that grant variances for agricultural structures and accessory structures will preserve their standing with the NFIP by following written procedures that are consistent with 44 C.F.R. § 60.6(a) and FEMA Floodplain Management Bulletin P-993, Variances and the National Flood Insurance Program, and this bulletin. Communities can request additional guidance for variance procedures from state, tribal, and territorial NFIP coordinators and FEMA regional offices.

FEMA also recommends that communities develop a formal variance application or checklist to help applicants understand the variance process, provide the necessary technical justifications, and demonstrate that they meet the requirements for variances.

Modification of local regulations to add specific requirements is **required** when:

- FEMA approves requests for community-wide exceptions, described in Section 4.4
- Communities intend to issue permits for repair and restoration to pre-damaged condition when agricultural structures are substantially damaged by flood or are designated by the NFIP as repetitive loss structures, described in Section 4.5

4.3.2. AGRICULTURAL STRUCTURES THAT POSE A DANGER TO PUBLIC HEALTH, SAFETY, AND WELFARE

Communities should carefully examine requests for variances to determine whether granting the requests would increase risks and pose a danger to public health, safety, and welfare. Variances to allow wet floodproofing should not be granted when flooding of an agricultural structure and its

contents would increase those risks. Structures that could increase risks and dangers during flooding include those used for manure storage, livestock confinement operations, liquefied natural gas terminals, and production and storage of highly volatile, toxic, or water-reactive materials. Where feasible, such structures and uses should be located outside of SFHAs. If they must be located in SFHAs, these structures should be elevated or dry floodproofed to minimize risks and dangers during flooding.

4.4. Community-Wide Exceptions

All communities that participate in the NFIP are required to adopt and enforce floodplain management regulations that meet or exceed minimum NFIP regulations. FEMA recognizes that in some instances, due to extraordinary circumstances or local conditions, applying the NFIP requirements for elevation or dry floodproofing to agricultural structures or accessory structures could cause hardship or inequity. In these cases, and in accordance with 44 C.F.R. § 60.6(b) and the Policy, FEMA may approve requests submitted by communities for an exception to specific requirements. The "community-wide exception" mechanism described in this section only applies to agricultural structures or accessory structures, as both terms are defined in this bulletin (see Chapter 2) and in the Policy. If approved, community-wide exceptions allow communities to deviate from minimum standards under specific conditions without having to process individual variance requests.

As part of considering whether to seek FEMA approval for community-wide exceptions for accessory structures, communities should evaluate whether the size limits described in Section 4.2 are reasonable, in which case permits may be issued without variances. Requests for larger accessory structures and for agricultural structures can be handled as individual variance requests, described in Section 4.3.

It is very important for communities with approved community wide exceptions to realize the same care and attention given to requests for variances must be directed to the review of applications for agricultural structures and accessory structures in accordance with the FEMA approval. FEMA recommends that communities develop written procedures for evaluating requests to ensure all general requirements and specific requirements are satisfied. When FEMA approves a community's request for a community-wide exception, FEMA regional offices will monitor the community's compliance with the specific provisions of the approval.

Communities must submit requests for community-wide exceptions in writing to the appropriate FEMA regional office. Consistent with the Policy, requests must include the following:

1. **A description of the nature, extent of, and reasons for the exception request.** The "nature" of the exception request refers to the specific minimum NFIP requirement(s) from which an exception is requested and the community's proposed alternative to the minimum requirements. The "extent" of the exception describes any limitations or specific characteristics that will be used to apply and administer the exception. Descriptions of the "reasons" must state the reasons the

community is requesting the exception. Communities must specify which types of structures are within the scope of the request and must detail criteria proposed for evaluating requests.

When communities include accessory structures in requests for community-wide exceptions, they must determine the appropriate size limits that are consistent with the Policy and this bulletin and specify the size limits in their requests.

2. **A description of the extraordinary circumstances and local conditions that would cause hardship or inequity if the minimum elevation and dry floodproofing requirements are enforced.** Descriptions should address factors that contribute to hardship or inequity if the minimum elevation and dry floodproofing requirements are enforced. The goal of floodplain management regulations is to reduce future damage, which may not be achieved when agricultural structures or accessory structures are allowed without requiring full compliance.

3. **Supporting justification.** Justifications should include factors relevant to the community, including community-wide economic impacts; environmental, topographic, and hydrologic and hydraulic conditions and data; other scientific and technical data; and information demonstrating the impact on public health, safety, and welfare and the environment. Communities could propose limitations based on flood conditions, for example, when base flood depths are greater than five feet and velocities are higher than five feet per second. The objective is to demonstrate that a community-wide exception to allow wet floodproofing of certain agricultural structures or accessory structures will not have adverse impacts.

4. **Supporting information regarding other planning considerations and factors that justify wet floodproofing as an appropriate alternative mitigation design.** The request should include supporting information to demonstrate that communities have considered other planning and engineering factors in determining that the requested exception to allow wet floodproofing is a practicable alternative that provides the minimum relief necessary. Factors might include proximity to land outside of mapped SFHAs; available warning time before the onset of flooding; frequency of flooding; depth of water, velocity and duration under base flood conditions; safety and access; emergency operations plans; protection of contents and equipment; and any other conditions, requirements, or restrictions proposed by the community.

5. **Proposed ordinance language to allow certain agricultural structures or accessory structures to be wet floodproofed and to effectively administer and enforce the conditions of the community-wide exception.** Communities should consult with their FEMA regional office to develop proposed ordinance language that is consistent with the Policy and this bulletin. The ordinance language must outline the specific criteria and requirements for determining whether to issue permits for wet floodproofed agricultural structures or accessory structures. Communities should provide evidence that their existing variance provisions are consistent with the minimum NFIP variance requirements and conditions and evidence that implementing a community-wide exception does not conflict with other state, tribal, or territorial laws and regulations. The proposed ordinance language must, at a minimum, include the additional factors to consider and determine that are listed in Section 4.3.

Communities requesting community-wide exceptions **must not** modify floodplain management regulations or make regulations effective until **after** FEMA approves the requests.

4.4.1. FEMA REVIEW OF COMMUNITY-WIDE EXCEPTION REQUESTS

FEMA considers and approves requests for community-wide exceptions on a community-by-community basis. The general process for FEMA's review and approval of requests for community-wide exceptions is outlined below:

- The community submits an exception request, including all supporting documents and technical data, to the appropriate FEMA regional office.
- The FEMA regional office will complete an initial review and evaluation of the request and work with the community to ensure sufficient documentation and justification is included. The regional office will confirm with the state, tribal, or territorial NFIP coordinator that the community's proposed ordinance language is consistent with applicable laws and regulations. After confirming the request has sufficient documentation and justification, the regional office will forward the request to FEMA Headquarters for final review and action.
- FEMA Headquarters will review the request package and prepare a special environmental clearance to determine whether the proposed community-wide exception will have a significant impact on the human environment. The decision to prepare an environmental impact statement or other environmental documentation will be made in accordance with the NFIP regulations (44 C.F.R. § 60.6(b)(2)) and FEMA Directive 108-1 and Instruction 108-1-1. This will be part of FEMA's assessment of how applicable environmental and historic preservation laws, regulations, Executive Orders, and agency policy apply to proposed Federal actions.
- Upon completion of the final review by FEMA Headquarters and completion of the environmental impact evaluation, the regional office will notify the community of the outcome. If the request is denied, an explanation for the denial will be provided. If the request is approved, the regional office will provide technical assistance, if necessary, to ensure the community's proposed ordinance language is sufficient and consistent with the requirements of the approved community-wide exception.

4.5. Repair and Restoration of Substantially Flood Damaged and Repetitive Loss Agricultural Structures

Communities that participate in the NFIP must adopt and enforce regulations that apply when structures in SFHAs incur substantial damage by any cause and when owners propose to substantially improve structures in SFHAs. When structures are substantially damaged or will be substantially improved, communities must require that the structures be brought into compliance with all requirements for new construction.

Because the NFIP **repetitive loss structure** designation is based on insurance claims paid over a 10-year period, the list of designated structures changes over time. When communities adopt the necessary regulations to allow repair and restoration of repetitive loss agricultural structures to pre-damage condition, after each flood event, local officials should contact the FEMA regional office to determine whether specific flood-damaged agricultural structures have been designated.

The NFIP statute provides that communities may adopt regulations to allow agricultural structures that are substantially damaged by flooding, and agricultural structures that are designated by the NFIP as repetitive loss structures, to be repaired or restored to pre damaged conditions [42 U.S.C. § 4022(a)(2), enacted by NFIA Section 1315(a)(2)]. The statute also establishes that agricultural structures repaired or restored in accordance with this provision:

- Will not be eligible for disaster relief under any program administered by FEMA or any other Federal agency
- Will have NFIP flood insurance premiums rated based on a structure's risk, although the NFIP is not required to provide flood insurance coverage unless repairs include wet floodproofing measures.

- **Repetitive loss structure** is a structure covered by an NFIP flood insurance policy that has incurred flood-related damage on two occasions during a 10-year period ending on the date of the event for which the second claim is made, in which the cost of repair, on average, equaled or exceeded 25 percent of the value of the structure at the time of each flood event.
- **Substantial damage** is damage of any origin 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. Structures that incur substantial damage must be brought into compliance with the requirements for new construction.
- **Substantial improvement** is any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the start of construction of the improvement. Structures that are substantially improved must be brought into compliance with the requirements for new construction.

When communities adopt the appropriate regulations, permits may be issued to authorize repair and restoration of agricultural structures substantially damaged by flooding, and those that are repetitive loss structures, without requiring the structures to be brought into full compliance with the elevation or dry floodproofing requirements that would otherwise apply (see Section 3.1). Changes to local floodplain management regulations must be adopted to implement this approach, and the draft changes **must be reviewed and approved** by FEMA before adoption.

Communities considering this option should review the model ordinance language in Appendix C, Section C.5. Because FEMA must review and approve proposed ordinance language, communities should request assistance from FEMA regional offices to finalize the draft changes well in advance of scheduling adoption.

Local floodplain management regulations to allow certain flood-damaged agricultural structures to be repaired or restored to pre-damage condition must specify:

- Only the cost to repair damage caused by flooding to pre-damage condition must be used to make the substantial damage determination for the purpose of deciding whether an agricultural structure can be repaired or restored without being brought into full compliance.
    - If damage was caused by a combination of flooding and another cause, then the cost to repair damage by that other cause must not be used to make the substantial damage determination.
    - If the flood damage alone is determined to not be substantial damage, but if damage by all causes is determined substantial damage, then the agricultural structure must be brought into compliance with the requirements for new construction. However, owners may request variances to allow wet floodproofing instead of elevation or dry floodproofing, which communities must consider in accordance with variance provisions described in Section 4.3.
- The work authorized by permits must be limited to only the work necessary to repair and restore agricultural structures to pre-damaged conditions. If any additional work or improvements are proposed at the same time, the combined repair and improvements constitute substantial improvement and communities must require the structures to be brought into compliance. However, owners may request variances to allow wet floodproofing instead of elevation or dry floodproofing, which communities must consider in accordance with variance provisions described in Section 4.3.

Owners seeking relief to allow certain flood-damaged agricultural structures to be repaired or restored to pre-damaged condition should be aware of these restrictions set forth in the NFIP statute:

- The structures will not qualify for Federal disaster assistance
- The structures may be denied NFIP flood insurance policies unless repairs include wet floodproofing measures.

FEMA recommends that communities considering adopting regulations to implement this option for flood-damaged agricultural structures also consider requiring the structures to be retrofitted with wet floodproofing measures as part of repair and restoration. Wet floodproofing measures, described in Section 3.2, reduce the potential for future flood damage. In addition, the NFIP may deny NFIP flood insurance policies unless wet floodproofing measures are included. When communities decide to

require retrofitted wet floodproofing, the costs of those measures should not be counted in the initial determination as to whether the damage by flooding is substantial damage.

5. NFIP Flood Insurance Considerations

Property owners and farm operators should carefully consider the economic consequences of implementing wet floodproofing in accordance with this bulletin. Although wet floodproofing measures will reduce physical damage to structures, contents are exposed to flooding. Also, owners and operators should consult with their insurance agents to learn how NFIP flood insurance premiums differ when agricultural structures and accessory structures are wet floodproofed rather than elevated or dry floodproofed.

The NFIP takes into consideration several factors when determining premiums for buildings and contents covered by NFIP flood insurance policies:

- When buildings are **elevated**, the elevation of the lowest floor compared to the BFE or flood depth is a significant factor (provided that enclosures, if any, are compliant).

Elevating or protecting buildings to one foot or higher above the BFE reduces the exposure of buildings and contents to future flooding and results in lower NFIP flood insurance premiums.

- When non-residential buildings are **dry floodproofed**, the height of the dry floodproofing measures compared to the BFE or flood depth is a significant factor in how insurance policies are rated. Dry floodproofing must extend at least one foot above the BFE to be rated equivalent to a building elevated to the BFE. The measures must be designed and certified by registered professional engineers or architects and approved by FEMA as part of writing insurance coverage.

- When agricultural structures and accessory structures are approved to be **wet floodproofed**, whether by permit, variance, or if the community has a FEMA-approved community-wide exception, that approval does not influence how the NFIP determines insurance premiums. Structures with lowest floors below the BFE will be more costly to insure than those that are elevated or dry floodproofed.

Property owners and farm operators should consult with their insurance agents to discuss possible impacts of using wet floodproofing measures instead of elevation or dry floodproofing.

- The NFIP only insures **contents** that are located in buildings that are eligible for building coverage. Some self-propelled vehicles and machines not licensed for use on public roads are insurable, as are contents in silos and grain storage buildings.

The NFIP uses a definition of **building or structure for flood insurance purposes** that is distinct from the definition used for floodplain management purposes. Property owners and farm operators should be aware that structures that meet the definition for floodplain management purposes may not fit the insurance definition and vice versa.

For insurance purposes, the NFIP considers a building as:

- A structure with two or more outside rigid walls and a fully secured roof, that is affixed to a permanent site; or
- A manufactured home ("a manufactured home," also known as a mobile home, is a structure built on a permanent chassis, transported to its site in one or more sections, and affixed to a permanent foundation); or
- A travel trailer without wheels, built on a chassis and affixed to a permanent foundation, that is regulated under the community's floodplain management and building ordinances or laws.

"Building" does not mean a gas or liquid storage tank or a recreational vehicle, park trailer, or other similar vehicle.

Property owners and farm operators should consider the following implications for NFIP flood insurance when planning and constructing agricultural structures and accessory structures in SFHAs:

- The NFIP is authorized to deny individual property owners flood insurance coverage if structures and development in SFHAs are in violation of local floodplain management regulations and the owners refuse to bring the structures into compliance (NFIA Section 1316).
- Insurance agents may be required to use the NFIP's specific rating guidelines when a structure's lowest floor is below the BFE. In some cases, agents may submit documentation to the NFIP specifically to rate individual structures, including documentation of variances granted to allow the structures below the BFE.
- The contents of some agricultural structures may be more valuable than the structures. When agricultural structures are insurable, owners may consider contents-only flood insurance policies, although coverage is limited (consult with insurance agents to learn which contents are insurable). Lenders may still require flood insurance coverage for structures.
- Lenders making or servicing federally backed loans will usually require owners to purchase flood insurance coverage for insurable structures, regardless of the structure's value, nature or value of contents, and how the buildings are constructed.
- When detached garages are located on the same lots as single-family and two- to four-family dwellings that are covered by NFIP flood insurance policies, the garages are included in the policies, but coverage is limited to no more than 10 percent of the limit of liability on the dwellings. Accessory structures used for storage are not included in the coverage, but may be insured by separate policies.
- Accessory structures on the same lots as non-residential structures and residential structures other than single-family and two- to four-family dwellings may be insured by separate policies.

Section 4.5 describes an option for communities to adopt regulations to allow agricultural structures that are substantially damaged by flooding, and those that are designated by the NFIP as repetitive

loss structures, to be repaired or restored to pre-damaged conditions. The NFIP is authorized to rate flood insurance policies on those agricultural structures based on the lowest floor elevation. However, the NFIP is not required to provide flood insurance policies unless repaired or restored agricultural structures are wet floodproofed (NFIA Section 1315(a)(2)).

Learn more about NFIP flood insurance online at https://www.FloodSmart.gov/ or by calling 1-888-379-9531.

Appendix A: FEMA Policy #104-008-03: Floodplain Management Requirements for Agricultural Structures and Accessory Structures

The Floodplain Management policy (FEMA Policy #104-008-03, effective February 2020), *Floodplain Management Requirements for Agriculture Structures and Accessory Structures*, can be found on FEMA.gov at the following link: https://www.fema.gov/sites/default/files/2020-08/fema_floodplain-management_agriculture-accessory-structures_2020.pdf

You can also access the document through the main Glossary or NFIP Terminology Index by searching for "Accessory Structures" or "Agricultural Structures."

Appendix B: FEMA Guidance, Statute, and NFIP Regulations Clarified and Refined by this Bulletin

This table briefly describes some of the FEMA guidance documents cited in this bulletin, the statute, and pertinent NFIP regulations as they relate to agricultural structures and accessory structures. Readers should be aware that some guidance documents predate FEMA Policy #104-008-03.

The table describes clarifications and refinements embodied in the Policy and this bulletin. This reference will assist those who want to compare previous guidance to the guidance in this bulletin. Appendix D lists full titles and links to download referenced publications.

Table 3: Clarifications and Refinements in the Policy and this Bulletin

Guidance, Regulation, Statute	Brief Description	How the Policy and this Bulletin Clarify and Refine Guidance, Regulations, and Statute
NFIP Technical Bulletin 1 (2008 and 2020 editions)	Provides guidance for meeting the NFIP requirements for flood openings in foundation walls and walls of enclosures. Detached garages and detached accessory structures used only for parking and storage may be permitted in Zone A without requiring them to be elevated when the structures comply with measures described as wet floodproofing, including flood openings. Technical Bulletin 1 does not explicitly address agricultural structures.	▪ Explain when it is appropriate to allow accessory structures in A Zones to be wet floodproofed. Indicates the size FEMA considers to be "small" accessory structures in Zone A (e.g., one-story two-car garage) for approval by permit (larger sizes may be authorized by variance). ▪ Establish parameters by which communities may seek FEMA approval for community-wide exceptions to allow issuance of permits for agricultural structures and accessory structures, rather than by granting variances on a case-by-case basis.
NFIP Technical Bulletin 5 (2008 and 2020 editions)	Provides guidance for meeting the NFIP free of obstruction requirements for development in Zone V. Accessory storage structures in Zone V should be limited to low-cost and small structures that are "disposable." Small means less than or equal to 100 square feet in size. Detached garages are "too large" to allow below the BFE. The 2008 edition states that "low cost" means $1,000 or less, while the 2020 edition does not identify a dollar amount. Technical Bulletin 5 does not explicitly address agricultural structures.	▪ Explain when it is appropriate to allow accessory structures in A Zones to be wet floodproofed. Indicates the size FEMA considers to be "small" accessory structures in Zone V (100 square feet) for approval by permit (larger sizes may be authorized by variance). Does not recommend variances for wet floodproofing of agricultural structures in V Zones because of increased risks to public safety.

Guidance, Regulation, Statute	Brief Description	How the Policy and this Bulletin Clarify and Refine Guidance, Regulations, and Statute
NFIP Technical Bulletin 7 (1993 edition)	Provides guidance for planning and engineering (construction) considerations for the use of wet floodproofing measures, including: ▪ Accessory structures used for parking (two-car detached garage or smaller) or storage (small, low-cost sheds) may be approved by variance. ▪ Certain agricultural structures (farm storage structures, grain bins, corn cribs, and general-purpose barns) located in "wide, expansive floodplains" and used "exclusively in connection with the production, harvesting, storage, drying, or raising of agricultural commodities, including the raising of livestock" may be approved by variance.	▪ Refine and expand definitions for "agricultural structure" and "accessory structure" for floodplain management purposes. ▪ Explain the requirements for wet floodproofing and establish limits for when agricultural structures can be wet floodproofed (low damage potential) and when accessory structures can be wet floodproofed. ▪ Establish specific criteria for authorizing certain agricultural structures and accessory structures by variance. ▪ Establish parameters by which communities may seek FEMA approval for community-wide exceptions to allow issuance of issue permits for agricultural structures and accessory structures, rather than by granting variances on a case-by-case basis.
FEMA Floodplain Management Bulletin P-993: Variances and the National Flood Insurance Program	Provides guidance on variance procedures in accordance with the NFIP regulations at 44 C.F.R. § 60.6. Describes conditions that may be placed on accessory structures and detached garages authorized by variance. A limit on size of accessory structures in Zone A is not specified. Accessory structures in Zone V should be prohibited or allowed only if "very low value, 'disposable' storage sheds." FEMA P-993 does not explicitly address agricultural structures.	▪ Describe conditions that allow communities to approve: ○ Accessory structures by permit if "low damage potential" and small, rather than requiring all accessory structures to be handled by variance. Communities must use variances to approve accessory structures that are larger than approved size limits. ○ Agricultural structures by variance, if "low damage potential." ○ Agricultural structures and accessory structures by permit, when FEMA has approved "community-wide exceptions" in those communities that

Guidance, Regulation, Statute	Brief Description	How the Policy and this Bulletin Clarify and Refine Guidance, Regulations, and Statute
		submit requests and documentation for such exceptions.
NFIA Section 1315(a)(2) (42 U.S.C. § 4022(a)(2))	Provides that communities may adopt regulations to allow the repair and restoration to pre-damage condition of agricultural structures that are "repetitive loss structures" (defined in statute) or are substantially damaged by flood related damage. Specifies flood insurance provided for such structures must be based on "chargeable premium rates" and that the NFIP is not required to provide insurance coverage unless such structures are "wet floodproofed through permanent or contingent measures applied to the structure or its contents that prevent or provide resistance to damage from flooding by allowing flood waters to pass through the structure." Specifies that such structures are not eligible for disaster relief assistance under any program administered by FEMA or any other Federal agency.	▪ Describe requirements communities may adopt, with FEMA concurrence, to allow repair and restoration to pre-damage condition when agricultural structures are substantially damaged by flooding and when agricultural structures are designated by the NFIP as "repetitive loss structures." ▪ Encourages communities considering allowing repair and restoration of those agricultural structures to consider requiring owners to incorporate wet floodproofing as part of repairs, to reduce future flood damage and maintain eligibility for NFIP flood insurance coverage.
44 C.F.R. § 60.6(a) – Variances and Exceptions	Sets forth procedures for granting variances and factors that communities must consider. Communities must grant variances only upon specific findings (listed in the regulation), and only if they determine variances are the minimum necessary to afford relief. Provides that FEMA may review a community's findings justifying granting variances and may take action to place a community on probation if the review indicates a pattern inconsistent with the objectives of sound floodplain management.	▪ Explain specifically how the variance process can be used by communities to approve wet floodproofing of agricultural structures and accessory structures.

Guidance, Regulation, Statute	Brief Description	How the Policy and this Bulletin Clarify and Refine Guidance, Regulations, and Statute
44 C.F.R. § 60.6(b) – Variances and Exceptions	Acknowledges that "certain exceptions" from the minimum floodplain management standards in 44 C.F.R. § 60.3 may be permitted by FEMA	▪ Explain how community wide exceptions, if approved by FEMA, can be used by communities to approve wet floodproofing to mitigate agricultural structures and accessory structures.

Appendix C: Model Ordinance Language to Allow Wet Floodproofed Agricultural Structures and Accessory Structures

This appendix offers model ordinance language that can be used by NFIP communities, with guidance and assistance from state, tribal, and territorial NFIP coordinators and FEMA regional offices.

The model ordinance language addresses wet floodproofing of agricultural structures and accessory structures in conformance with the Policy and this bulletin.

> Before making changes to the model language in this appendix, other than to adjust to fit within local floodplain management regulations, check with the FEMA regional office or the state, tribal, or territorial NFIP coordinator.
>
> Unless approved, changes to this model language could make the provisions no longer consistent with the Policy and the bulletin.

This appendix includes the following sections:

- Section C.1 includes definitions for accessory structure, agricultural structure, and repetitive loss agricultural structure.
- Section C.2 includes sample ordinance language to allow communities to issue permits (instead of granting variances) for small accessory structures based on specific size limits and if compliant with specific construction requirements. Refer to Section 4.2 of this bulletin.
- Section C.3 includes an example of typical standard variance provisions that include the NFIP minimum procedures, including specific determinations and actions that must be taken by communities and community variance boards when considering requests for variances (see 44 C.F.R. § 60.6(a)). Similar provisions are adopted by every community that participates in the NFIP.
- Section C.4 includes sample ordinance language that can be incorporated into standard variance provisions to specifically outline criteria that communities must evaluate when considering and granting variances with specific conditions to allow agricultural structures and accessory structures to be wet floodproofed. These criteria are in addition to the standard variance provisions shown in Section C.3. Refer to Section 4.3 of this bulletin.
- Section C.5 includes sample ordinance language that can be incorporated into local floodplain management regulations to allow certain flood-damaged agricultural structures to be repaired or restored to pre-damage condition without bringing the structures into compliance. FEMA must review and approve a community's proposed draft regulations before adoption. Refer to Section 4.5 of this bulletin.

General instructions for amending local regulations

- The model ordinance language shown in this appendix is consistent with the Policy and this bulletin.
- Communities may be more restrictive than the model provisions shown in in this appendix.
- Communities must ensure the model ordinance language is formatted to be compatible with existing regulations and numbered to fit into the appropriate sections. Where italicized notes appear [*in brackets*], each community must insert the appropriate cross-referenced section number where the referenced provisions are specified in that community's existing regulations.
- Before adoption, proposed changes to local regulations should be reviewed by state, tribal, and territorial NFIP coordinators or FEMA regional offices.

C.1 Model Definitions

Communities should select the appropriate definition(s) to pair with the provision(s) they will adopt. For example, if a community decides to amend local regulations to only address accessory structures, there would be no need to adopt definitions for agricultural structure and repetitive loss agricultural structure. Communities should include the definition for repetitive loss agricultural structure only when they adopt specific provisions applicable to those structures (see Section 4.5 and Section C.5). Communities in states that define agricultural structures or farm structures should contact the state NFIP coordinators for guidance before amending the definition for agricultural structure shown below.

The definitions shown below are consistent with the Policy.

Model definitions

- **Accessory Structure** – a structure on the same parcel of property as a principal structure and the use of which is incidental to the use of the principal structure. For floodplain management purposes, the term includes only accessory structures used for parking and storage.
- **Agricultural Structure** – for floodplain management purposes, a walled and roofed structure used exclusively for agricultural purposes or uses in connection with the production, harvesting, storage, raising, or drying of agricultural commodities and livestock, including aquatic organisms. Structures that house tools or equipment used in connection with these purposes or uses are also considered to have agricultural purposes or uses.
- **Repetitive Loss Agricultural Structure** – an agricultural structure covered by a National Flood Insurance Program contract for flood insurance that has incurred flood-related damage on two (2) separate occasions in which the cost of repair, on the average, equaled or exceeded 25 percent of the value of the structure at the time of each such flood event. The floodplain administrator should contact the FEMA regional office

to determine whether specific flood-damaged agricultural structures have been designated repetitive loss structures.

C.2 Model Ordinance Language for Small Accessory Structures by Permit (Instead of by Variance)

The following model ordinance language establishes clear limits and requirements for communities to issue permits for certain small accessory structures to allow wet floodproofing instead of requiring compliance with the minimum elevation or dry floodproofing requirements for non-residential buildings. To qualify for approval by permit instead of by variance, wet floodproofed accessory structures must be small, represent minimal investment, and have low damage potential (refer to Section 4.2 of this bulletin). Larger accessory structures may be wet floodproofed, but must be considered under the variance provisions. Communities may decide to require variances for all accessory structures, regardless of size (see Section C.3).

Model ordinance language for detached accessory structures

SECTION [*community-specific number*] DETACHED ACCESSORY STRUCTURES.

Detached accessory structures used only for parking of vehicles and storage are permitted at grade if:

(1) In special flood hazard areas other than coastal high hazard areas (Zones A, AE, AH, AO, and A1-30), not larger than a one-story two-car garage and walls have flood openings in compliance with the requirements of *[insert section number where flood opening requirements are specified*].

(2) In coastal high hazard areas (Zones V, VE, V1 30, and VO), not larger than 100 sq. ft. in area.

(3) Anchored to resist flotation, collapse, and lateral movement.

(4) Flood damage-resistant materials used below the base flood elevation comply with the requirements of [*insert section number where flood damage-resistant material requirements are specified*].

(5) Mechanical, electrical, and utility equipment comply with the requirements of [*insert section number where requirements for equipment and utilities are specified*].

C.3 Typical Standard Variance Provisions

The NFIP regulations for variances state that FEMA does not set forth absolute criteria for communities to use when considering granting variances from the minimum requirements for development in SFHAs (44 C.F.R. § 60.6). However, the regulations do establish minimum procedures that require communities to make specific determinations and take specific actions. Communities must approve or deny requests for variances, after examining documentation submitted by applicants.

The example of typical standard variance provisions shown below is included because review and evaluation of requests for variances for agricultural structures and accessory structures must be processed in the context of these standard provisions. Most communities adopt local regulations based on model ordinances developed by each state and territory. Having minor differences between provisions in existing local regulations and the sample provisions shown here does not mean communities must modify their regulations to match. Communities should contact the FEMA regional office or the state, tribal, or territorial NFIP coordinator for guidance on the standard variance provisions and how best to incorporate desired changes to be able to consider variances for agricultural structures and accessory structures.

Model ordinance language for standard variance provisions

SECTION [*community-specific number*] VARIANCES.

A. **General.** The [*community-specific entity designated as the community's variance review board*] shall hear and decide requests for variances. The [*variance review board*] has the right to attach such conditions to variances as it deems necessary to further the purposes and objectives of these regulations. The [*variance review board*] shall base its determinations on:

(1) Technical justifications submitted by the applicant.

(2) The staff report, comments, and recommendations submitted by the floodplain administrator.

(3) The limitations, considerations, and conditions set forth in this section.

B. **Records.** The floodplain administrator shall maintain a permanent record of all variance actions, including justification for issuance.

C. **Historic structures.** A variance is authorized to be issued for the repair or rehabilitation of a historic structure upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure, and the variance is the minimum necessary to preserve the historic character and design of the structure.

Exception: Within flood hazard areas, historic structures that are not:

(1) Listed or preliminarily determined to be eligible for listing in the National Register of Historic Places; or

(2) Determined by the Secretary of the U.S. Department of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined to qualify as an historic district; or

(3) Designated as historic under a state or local historic preservation program that is approved by the Department of the Interior.

D. **Functionally dependent uses.** A variance is authorized to be issued for the construction or substantial improvement of a functionally dependent use provided the variance is the minimum necessary to allow the construction or substantial improvement, and that all due

consideration has been given to methods and materials that minimize flood damage during the base flood and create no additional threats to public safety.

E. **Restrictions in floodways.** A variance shall not be issued for any proposed development in a floodway if any increase in flood levels would result during the base flood discharge.

F. **Considerations for review.** In reviewing applications for variances, all technical evaluations, all relevant factors, all other portions of these regulations, and the following shall be considered:

(1) The danger that materials and debris may be swept onto other lands resulting in further injury or damage.

(2) The danger to life and property due to flooding or erosion damage.

(3) The susceptibility of the proposed development, including contents, to flood damage and the effect of such damage on current and future owners.

(4) The importance of the services provided by the proposed development to the community.

(5) The availability of alternate locations for the proposed development that are not subject to flooding or erosion.

(6) The compatibility of the proposed development with existing and anticipated development.

(7) The relationship of the proposed development to the comprehensive plan and floodplain management program for that area.

(8) The safety of access to the property in times of flood for ordinary and emergency vehicles.

(9) The expected heights, velocity, duration, rate of rise and debris and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site.

(10) The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, streets, and bridges.

G. **Conditions for issuance.** Variances shall only be issued upon:

(1) A showing of good and sufficient cause that the unique characteristics of the size, configuration, or topography of the site renders the elevation standards inappropriate.

(2) A determination that failure to grant the variance would result in exceptional hardship by rendering the lot undevelopable.

(3) A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, nor create nuisances, cause fraud on or victimization of the public or conflict with existing local laws or ordinances.

(4) A determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

(5) Notification to the applicant in writing over the signature of the floodplain administrator that the issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance up to amounts as high as $25 for $100 of insurance coverage, and that such construction below the base flood level increases risks to life and property.

C.4 Model Ordinance Language for Variances for Individual Agricultural Structures and Accessory Structures

The following model ordinance language establishes clear limits and requirements that must be considered before granting variances with specific conditions for individual agricultural structures and accessory structures to allow wet floodproofing instead of requiring compliance with the minimum elevation or dry floodproofing requirements for non-residential buildings (see Section 4.3 of this bulletin).

INSTRUCTIONS FOR TAILORING MODEL ORDINANCE LANGUAGE FOR INDIVIDUAL COMMUNITIES.

- Where italicized notes appear [*in brackets*], insert the appropriate cross-referenced section number where the described provisions are specified in the community's existing regulations.
- The model ordinance language may be modified to include only accessory structures or only agricultural structures
- Communities may decide to require all wet floodproofed accessory structures to be approved under the variance provisions, rather than distinguish based on size. In this case, remove the size limit in paragraph H(1) b.

Model ordinance language for standard variance provisions

H. **Accessory structures and agricultural structures.** A variance is authorized to be issued for the construction or substantial improvement of accessory structures and agricultural structures provided the requirements of this section and the following are satisfied:

(1) **Accessory structures.** A determination that the proposed accessory structure:

a. Represents minimal investment and has low damage potential (amount of physical damage, contents damage, and loss of function).

b. Is larger than the size limits specified in [*insert section number where requirements for accessory structures, including size limits, are specified*].

c. Complies with the wet floodproofing construction requirements of paragraph H(3) below.

(2) **Agricultural structures.** A determination that the proposed agricultural structure:

a. Is used exclusively in connection with the production, harvesting, storage, raising, or drying of agricultural commodities and livestock, or storage of tools or equipment used in connection with these purposes or uses, and will be restricted to such exclusive uses.

b. Has low damage potential (amount of physical damage, contents damage, and loss of function).

c. Does not increase risks and pose a danger to public health, safety, and welfare if flooded and contents are released, including but not limited to the effects of flooding on manure storage, livestock confinement operations, liquified natural gas terminals, and production and storage of highly volatile, toxic, or water-reactive materials.

d. Is an aquaculture structure that is dependent on proximity to water if located in a coastal high-hazard area (Zones V, VE, V1 30, and VO).

e. Complies with the wet floodproofing construction requirements of paragraph H(3) below.

(3) **Wet floodproofing construction requirements.** Wet floodproofed structures shall:

a. Be anchored to resist flotation, collapse, and lateral movement.

b. Have flood damage-resistant materials below the base flood elevation in compliance with the requirements of [*insert section number where flood damage-resistant material requirements are specified*].

c. Have mechanical, electrical, and utility equipment in compliance with the requirements of [*insert section number where requirements for equipment and utilities are specified*].

d. In special flood hazard areas other than coastal high hazard areas, have flood openings in compliance with the requirements of [*insert section number where flood opening requirements are specified*].

C.5 Model Ordinance Language for Permits for Certain Flood-Damaged Agricultural Structures

The following model ordinance language establishes clear limits and requirements for communities to consider before issuing permits to allow certain flood-damaged agricultural structures to be repaired or restored to pre-damage condition without bringing the structures into compliance. To be eligible, the agricultural structures must be determined to have been substantially damaged by flooding only (even if damage was caused by flooding and another cause), or have been designated repetitive loss agricultural structures by the NFIP (refer to Section 4.4 of this bulletin).

INSTRUCTIONS FOR TAILORING MODEL ORDINANCE LANGUAGE FOR INDIVIDUAL COMMUNITIES.

Where italicized notes appear [*in brackets*], insert the appropriate new section number and the cross-referenced section number where the described provisions are specified in the community's existing regulations.

Model ordinance language to a new section where requirements for buildings are included

SECTION [*community-specific number*] AGRICULTURAL STRUCTURES DAMAGED BY FLOODING.

Agricultural structures that are substantially damaged by flooding and agricultural structures that are repetitive loss structures are permitted to be repaired or restored to pre-damage condition, provided the following are satisfied:

(1) If substantially damaged, the substantial damage determination is based only on the cost to repair damage caused by flooding to pre-damage conditions.

(2) The proposed repair or restoration does not change the size of the structure and does not significantly alter the nature of the building. With the exception of costs associated with wet floodproofing in accordance with paragraph (5) below, proposals that include work beyond or in addition to that necessary to repair or restore the structure to pre-damage condition must be regulated as substantial improvements.

(3) The repaired or restored structure will continue to be an agricultural structure, as defined in these regulations.

(4) Owners are notified, in writing, that agricultural structures approved under this section:

a. Will not be eligible for disaster relief under any program administered by the Federal Emergency Management Agency or any other Federal agency.

b. Will have National Flood Insurance Program flood insurance policies rated based on the structure's risk.

c. May be denied National Flood Insurance Program flood insurance policies if repairs do not include the wet floodproofing construction requirements of paragraph (5) below.

(5) Wet floodproofing construction requirements. When owners elect to wet floodproof flood-damaged agricultural structures as part of repair or restoration to pre-damage condition, the structure shall:

a. Be anchored to resist flotation, collapse, and lateral movement.

b. Have flood damage-resistant materials below the base flood elevation in compliance with the requirements of [*insert section number where flood damage-resistant material requirements are specified*].

c. Have mechanical, electrical, and utility equipment in compliance with the requirements of [*insert section number where requirements for equipment and utilities are specified*].

d. In special flood hazard areas other than coastal high hazard areas, have flood openings in compliance with the requirements of [*insert section number where flood opening requirements are specified*].

Appendix D: References and Photograph Sources

References

- 42 U.S.C. Chapter 50 National Flood Insurance [National Flood Insurance Act, as amended), §§ 4001 et seq. Available at https://uscode.house.gov/browse/prelim@title42/chapter50&edition=prelim.
- 44 C.F.R. Part 59 General Provisions and Part 60 Criteria for Land Management and Use). Available at https://www.govinfo.gov/app/details/CFR-2011-title44-vol1/CFR-2011-title44-vol1-part59 and https://www.govinfo.gov/app/details/CFR-2011-title44-vol1/CFR-2011-title44-vol1-part60.
    - 44 C.F.R. § 59.1 Definitions
    - 44 C.F.R. § 60.3 Flood Plain Management Criteria for Flood Prone Areas
    - 44 C.F.R. § 60.6 Variances and Exceptions
- ASCE. 2017. ASCE 7-16, Minimum Design Loads and Associated Criteria for Buildings and Other Structures. Available for purchase from ASCE at https://www.asce.org/.
- ASCE. 2015. ASCE 24-14, Flood Resistant Design and Construction. Available for purchase from ASCE at https://www.asce.org/.
- FEMA. Various dates. NFIP Technical Bulletins. Current editions available at https://www.fema.gov/nfip-technical-bulletins:
    - Technical Bulletin 0, User's Guide to Technical Bulletins
    - Technical Bulletin 1, Requirements for Flood Openings in Foundation Walls and Walls of Enclosures
    - Technical Bulletin 2, Flood-Damage-Resistant Materials Requirements
    - Technical Bulletin 3, Non-Residential Floodproofing – Requirements and Certification
    - Technical Bulletin 4, Elevator Installation
    - Technical Bulletin 5, Free-of-Obstruction Requirements for Buildings Located in Coastal High-Hazard Areas
    - Technical Bulletin 6, Below-Grade Parking Requirements
    - Technical Bulletin 7, Wet Floodproofing Requirements

- Technical Bulletin 8, Corrosion Protection for Metal Connectors and Fasteners in Coastal Areas
- Technical Bulletin 9, Design and Construction Guidance for Breakaway Walls Below Elevated Buildings Located in Coastal High Hazard Areas
- Technical Bulletin 10, Ensuring that Structures Built on Fill in or near Special Flood Hazard Areas Are Reasonably Safe from Flooding
- Technical Bulletin 11, Crawlspace Construction for Buildings Located in Special Flood Hazard Areas (Interim Guidance)

- FEMA. 2010. FEMA P-758. Substantial Damage/Substantial Improvement Desk Reference. Available at https://www.fema.gov/media-library/assets/documents/18562
- FEMA. 2013. FEMA P-936. Floodproofing Non-Residential Buildings. Available at http://www.fema.gov/media-library/assets/documents/34270.
- FEMA. 2014. FEMA P-993. Floodplain Management Bulletin: Variances and the National Flood Insurance Program. Available at https://www.fema.gov/media-library/assets/documents/99703.
- FEMA. 2016. FEMA Environmental Planning and Historic Preservation Responsibilities and Requirements (FEMA Directive 108-1 and Instruction 108-1-1). Available at https://www.fema.gov/media-library/assets/documents/118323.
- FEMA. 2017. FEMA P-348, Protecting Building Utility Systems from Flood Damage. Available at https://www.fema.gov/media-library/assets/documents/3729.

Appendix E: Acronym List

ARS	Agricultural Research Service
ASCE	American Society of Civil Engineers
BFE	Base Flood Elevation
C.F.R.	Code of Federal Regulations
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FIS	Flood Insurance Study
GFCI	Ground Fault Circuit Interrupter
LiMWA	Limit of Moderate Wave Action
NFIA	National Flood Insurance Act
NFIP	National Flood Insurance Program
SFHA	Special Flood Hazard Area
U.S.C.	United States Code
USDA	United States Department of Agriculture

FEMA

FEMA POLICY: Floodplain Management Requirements for Agricultural Structures and Accessory Structures

FEMA Policy #104-008-03
Date Issued: February 2020

BACKGROUND

This policy is intended to provide clarification and technical assistance to National Flood Insurance Program (NFIP) State/Tribe/Territory Coordinators and local floodplain administrators regarding implementation of the NFIP design and performance standards for agricultural structures and accessory structures. This policy establishes standards for these structures, as defined in this policy, which are located within the Special Flood Hazard Areas (SFHAs) designated in FEMA's Flood Insurance Studies and effective Flood Insurance Rate Maps. This policy clarifies the requirements for granting variances and exceptions to the NFIP design and performance standards for agricultural and accessory structures in accordance with current FEMA regulations.

This policy supersedes portions of existing FEMA guidance related to agricultural structures and accessory structures found in NFIP Technical Bulletin 1 "Openings in Foundation Walls and Walls of Enclosures," NFIP Technical Bulletin 5 "Free-of Obstruction Requirements," and NFIP Technical Bulletin 7 "Wet Floodproofing Requirements." This policy also supersedes all specific communications and guidance on this subject from FEMA Regional Offices. In the event of a conflict between this policy and prior FEMA policies, bulletins, or guidance, this policy shall take precedence.

PURPOSE

The purpose of this policy is to acknowledge the unique characteristics and uses of agricultural structures and accessory structures within the SFHA to ensure sound development and promote public health, safety, and welfare. This policy clarifies the definition of agricultural structures and accessory structures and establishes a clear, consistent process for ensuring compliance with NFIP design and performance standards for those structures located within the SFHA.

Agricultural structures and accessory structures are non-residential structures, and the NFIP requires new construction and substantial improvements of non-residential structures in SFHAs to be elevated or dry floodproofed to or above the Base Flood Elevation (BFE). Dry floodproofing is not permissible in V Zones (V, VE, V1-V-30), which are defined on the effective Flood Insurance Rate Map. However, in accordance with the NFIP design and performance standards for floodplain management, wet floodproofing,

as applied to buildings constructed at-grade, below the required elevation, or elevated on fill, may be an allowable alternative mitigation technique for certain agricultural structures and accessory structures.

This policy does not provide clarification on eligibility or application of federal flood insurance for agricultural structures or accessory structures. Agricultural and accessory structures are generally eligible for federal flood insurance coverage under the NFIP. See FEMA's Flood Insurance Manual for information on the rules governing NFIP building coverage and/or contents coverage, including agricultural and accessory structures (as amended).

PRINCIPLES

This policy explains the minimum requirements for agricultural structures and accessory structures in general and the criteria for when and how wet floodproofing instead of elevating or dry floodproofing may be used in specific situations in accordance with current FEMA regulation and consistent with the principles outlined below.

A. Promote smart development and mitigation strategies for agricultural and accessory structures.
B. Provide clarity on how to meet the floodplain management and design and performance standards for construction of agricultural and accessory structures, especially in wide and deep floodplains.
C. Reduce the financial burden of meeting design and performance standards for certain low damage potential agricultural and accessory structures.

REQUIREMENTS

This section provides the NFIP floodplain management development requirements and design and performance standards for agricultural structures and accessory structures located within the SFHA and the requirements for granting exceptions to the minimum standards.

A. DEFINITIONS OF AGRICULTURAL STRUCTURE AND ACCESSORY STRUCTURE

Outcome: FEMA provides a clear NFIP definition of agricultural structures and accessory structures for floodplain management purposes, consistent with the National Flood Insurance Act of 1968 (NFIA) and the NFIP regulations.

1. An *agricultural structure* means a structure, as defined in 44 C.F.R. § 59.1, that is used exclusively in connection with the production, harvesting, storage, raising, or drying of agricultural commodities and livestock; an agricultural structure specifically excludes any structure used for human habitation.
    a. Agricultural structures are considered "walled and roofed" when the structure includes at least two outside rigid walls and a fully secured roof.
    b. The NFIP recognizes aquaculture to be farming that is conducted in water. As such, the NFIP considers an aquaculture structure to be included within the

NFIP definition of agricultural structure for floodplain management purposes, provided that:

i. The aquaculture structure meets the NFIP definition of a structure as defined in 44 C.F.R. § 59.1, for floodplain management purposes (walled and roofed), where walled and roofed shall be interpreted as having at least two outside rigid walls and a fully secured roof; and

ii. The aquaculture structure is used exclusively for the production, harvesting, storage, raising, or drying of aquatic animals or plants.

c. The following may be related to agricultural purposes or uses but are generally not considered to be agricultural structures by the NFIP:

i. Structures that do not meet the exclusive use requirement of the NFIP definition of agricultural structure, such as:

1. Structures used for human habitation, whether as a permanent residence or as temporary or seasonal living quarters;
2. Structures used by the public, such as a place of employment or entertainment; and
3. Structures with multiple, or mixed, uses where one or more use does not meet the definition of agricultural structure.

ii. Development that does not meet the NFIP definition of a structure for floodplain management purposes. Examples include, but are not necessarily limited to, a pole barn (roofed but not walled) or a holding pen or aquaculture tank/pool (walled but not roofed).

2. An *accessory structure* means a structure, as defined in 44 C.F.R. § 59.1, that is on the same parcel of property as a principal structure and the use of which is incidental to the use of the principal structure; an accessory structure specifically excludes structures used for human habitation.

a. Accessory structures are considered walled and roofed where the structure includes at least two outside rigid walls and a fully secured roof.

b. Examples of accessory structures include but are not necessarily limited to two-car detached garages (or smaller), carports, storage and tool sheds, and small boathouses.

c. The following may have uses that are incidental or accessory to the principal structure on a parcel but are generally not considered to be accessory structures by the NFIP:

i. Structures in which any portion is used for human habitation, whether as a permanent residence or as temporary or seasonal living quarters, such as a detached garage or carriage house that includes an apartment or guest quarters, or a detached guest house on the same parcel as a principal residence;

ii. Structures used by the public, such as a place of employment or entertainment; and

iii. Development that does not meet the NFIP definition of a structure for floodplain management purposes. Examples includes, but are not necessarily limited to, a gazebo, pavilion, picnic shelter, or carport that is open on all sides (roofed but not walled).

B. NFIP MINIMUM FLOODPLAIN MANAGEMENT REQUIREMENTS FOR AGRICULTURAL STRUCTURES AND ACCESSORY STRUCTURES

Outcome: FEMA specifies clear construction requirements for agricultural structures and accessory structures located in the SFHA. Agricultural and accessory structures are not exempt from NFIP floodplain management requirements.

In addition to enforcing all other design and performance standards identified in 44 C.F.R. § 60.3 applicable to non-residential structures, communities must:

1. Require that new construction and substantial improvements of non-residential structures in the SFHA be constructed with the lowest floor elevated to or above the BFE or, together with attendant utility and sanitary facilities, be dry floodproofed to or above the BFE.
2. Require that enclosed areas below the lowest floor of non-residential structures used solely for building access, parking, or limited storage must include, at a minimum, adequate flood opening designed to automatically equalize hydrostatic flood forces.
3. Require that areas below the lowest floor within V Zones (V, VE, V1-V-30) be free of obstruction or constructed with non-supporting breakaway walls, open wood lattice work, or insect screening intended to collapse under wind and water loads without causing collapse or structural damage to the elevated portion of the building or foundation system.
4. Obtain and maintain a record of the certified elevation of the lowest floor for all new construction and substantial improvements and, where applicable, the certified elevation to which the structure has been dry floodproofed.

C. EXCEPTIONS TO THE NFIP MINIMUM FLOODPLAIN MANAGEMENT REQUIREMENTS FOR AGRICULTURAL STRUCTURES AND ACCESSORY STRUCTURES

Outcome: FEMA articulates clear requirements for granting exceptions to the NFIP minimum design and performance standards for agricultural structures and accessory structures.

1. **Agricultural Structures Only**. Per Section 1315(a)(2)(A) of the NFIA, agricultural structures located in the SFHA that are designated as repetitive loss, as defined in the NFIA, or substantially damaged by flood may be repaired and restored to pre-damaged conditions under the following criteria:
    a. Damage must be from flooding alone and must meet the community's substantial damage threshold. If damage is caused by other hazards, or a mix of hazards, the agricultural structure must meet elevation or dry floodproofing requirements when repaired or restored or wet floodproofing if it qualifies per this policy.
    b. The language of the local jurisdiction's land use provision must be reviewed and approved by FEMA to confirm consistency with the NFIP design and performance standards, and it must be incorporated into the local floodplain management regulations.

c. The repair or restoration must be to pre-damaged condition only. Substantial improvements require the agricultural structure to meet elevation or dry floodproofing requirements or wet floodproofing if it qualifies per this policy.
d. Repair and restoration to pre-damaged condition requires issuance of a floodplain development permit for each occurrence.
e. In accordance with Section 1315(a)(2)(C) of the NFIA, disaster assistance under any program administered by the Administrator or any other federal agency is not available for agricultural structures repaired or restored to pre-damaged condition.
f. In accordance with Section 1315(a)(2)(B) of the NFIA, FEMA may deny federal flood insurance coverage unless the agricultural structure is wet floodproofed, consistent with the design and performance standards of 44 C.F.R. § 60.3(c)(5).

2. **Agricultural Structures and Accessory Structures.** The community may allow certain agricultural and/or accessory structures located in the SFHA to be wet floodproofed in lieu of the elevation or dry floodproofing requirement, via variance, under the following conditions:
   a. In accordance with the provisions of 44 C.F.R. § 60.6(a), the owner of an agricultural or accessory structure may request a variance from the appropriate local authority to allow certain agricultural or accessory structures located in the SFHA to be wet floodproofed in lieu of the elevation or dry floodproofing requirement of the NFIP. Communities must have a mechanism to ensure compliance with this policy and should include within their floodplain management regulations the criteria for an agricultural or accessory structure to receive a variance to wet floodproof in lieu of elevation or dry floodproofing.
      i. The variance must be for an individual agricultural or accessory structure as defined in this policy.
      ii. Justification for the variance must be on a case-by-case basis in accordance with the criteria established in 44 C.F.R. § 60.6(a), and the variance application and community documentation must address the following:
         1. The agricultural or accessory structure must meet the definition of *structure, for floodplain management purposes,* provided in 44 C.F.R. § 59.1, where walled and roofed shall be interpreted as having at least two outside rigid walls and a fully secured roof.
         2. An accessory structure is small and represents a minimal investment.
         3. An agricultural structure has a low damage potential and is located in an A Zone (A, AE, A1-A30, AR, A99).
         4. A description of the exceptional hardship that the applicant would incur if a variance were not granted must be included.
         5. The agricultural or accessory structure must meet the definition of agricultural or accessory structure, including the exclusive use requirements provided in this policy.

6. The agricultural or accessory structure must be anchored to resist flotation, collapse, and lateral movement.
7. The portions of the agricultural or accessory structure located below the BFE must be constructed with flood-resistant materials.
8. Mechanical and utility equipment for the agricultural or accessory structure must be elevated or dry floodproofed to or above the BFE.
9. The agricultural or accessory structure must comply with the floodway encroachment provisions of the NFIP.
10. The agricultural or accessory structure must be wet floodproofed to protect the structure from hydrostatic pressure. The design must meet the NFIP design and performance standards for openings per 44 C.F.R. § 60.3(c)(5) and must allow for the automatic entry and exit of floodwaters without manual operation or the presence of a person (or persons).

iii. The variance must provide the minimum relief necessary.

iv. The variance must restrict use of the agricultural or accessory structure in accordance with the exclusive use requirement of the NFIP definition provided in this policy.

v. In accordance with FEMA regulation and guidance, owing to the increased risk to public safety, a variance for wet floodproofing in lieu of elevation or dry floodproofing is not recommended for:
   1. An agricultural structure located in a V Zone (V, VE, V1-V-30). Wet floodproofing and breakaway walls below a compliant elevated structure is permissible without a variance.
   2. An agricultural or accessory structure which, if flooded, would create a threat to public safety, health, and welfare. Such structures include but may not be limited to confinement operations; structures with liquefied natural gas terminals; and facilities producing and storing highly volatile, toxic, or water-reactive materials. Ideally, these structures should be located outside of the SFHA; however, when located within the SFHA, these structures must be elevated or dry floodproofed in accordance with NFIP design and performance standards.

b. In accordance with the provisions of 44 C.F.R. § 60.6(b), a community may request a community-wide exception from FEMA to allow certain agricultural or accessory structures located in the SFHA to be wet floodproofed in lieu of the elevation or dry floodproofing requirement of the NFIP.

   i. The community must submit a request, in writing, to its respective FEMA Regional Office, including:
      1. The nature, extent of, and reasons for the exception
      2. A description of the extraordinary circumstances and local conditions that cause a hardship or inequity for elevating or dry floodproofing agricultural or accessory structures

3. Sufficient supporting justification, which may include community-wide economic impacts; environmental, topographic, hydrologic, and hydraulic conditions and data; other scientific and technical data; and data demonstrating the impact on public safety and welfare and the environment
4. Sufficient supporting information regarding other planning considerations and factors that justify wet floodproofing as an appropriate alternative mitigation design, which may include flooding characteristics (frequency, duration, depth); flood warning time; safety and access; emergency operations plans; protection of contents and equipment; and any other conditions, requirements, or restrictions the community proposes to enforce for an agricultural and/or accessory structure to be eligible for the exception to wet floodproof
5. The proposed regulations language for allowing certain agricultural or accessory structures to be wet floodproofed, consistent with the minimum criteria outlined in Section C, Part 2(a) of this policy

ii. The FEMA Regional Office will complete an initial review and evaluation of the request and work with the community to ensure sufficient documentation and justification for the request has been received prior to submitting the request to FEMA Headquarters for final review and approval.

iii. FEMA will prepare a Special Environmental Clearance to determine whether the proposed community-wide exception will have a significant impact on the human environment. The decision to prepare an Environmental Impact Statement, or other environmental documentation, will be made in accordance with FEMA Directive 108-1 and FEMA Instruction 108-1-1. This will be part of FEMA's assessment of how applicable environmental and historic preservation laws, regulations, Executive Orders, and agency policy apply to proposed federal actions.

iv. After review and evaluation of the request, the FEMA Regional Office will notify the community whether the requested community-wide exception is approved.
   1. If the request is denied, the FEMA Regional Office will provide an explanation for the denial.
   2. If the request is approved, the FEMA Regional Office will provide technical assistance, as necessary, to ensure the regulations language is sufficient and consistent with the requirements of the approved community-wide exception.

3. **Accessory Structures Only.** The community may allow certain accessory structures located in the SFHA to be wet floodproofed in lieu of the elevation or dry floodproofing requirement, without a variance, under the following conditions:

a. Communities must have a mechanism to ensure compliance with this policy and should include within their FEMA-approved floodplain management regulations the criteria for an accessory structure to be wet floodproofed in lieu of elevation or dry floodproofing without a variance.
    i. The accessory structure must meet the definition of structure, for floodplain management purposes, provided in 44 C.F.R. § 59.1, where walled and roofed shall be interpreted as having two outside rigid walls and a fully secured roof.
    ii. The accessory structure should be small, as defined by the community and approved by FEMA, and represent a minimal investment. Accessory structures of any size may be considered for a variance; however, FEMA considers accessory structures that meet the following criteria to be small and therefore not necessarily in need of a variance, if the community chooses to allow it:
        1. Located in an A Zone (A, AE, A1-A30, AR, A99) and less than or equal to the size of a one-story, two-car garage.
        2. Located in a V Zone (V, VE, V1-V-30) and less than or equal to 100 square feet.
    iii. The accessory structure must be anchored to resist flotation, collapse, and lateral movement.
    iv. The portions of the accessory structure located below the BFE must be constructed with flood-resistant materials.
    v. Mechanical and utility equipment for the accessory structure must be elevated or dry floodproofed to or above the BFE.
    vi. The accessory structure must comply with the floodway encroachment provisions of the NFIP.
    vii. The accessory structure must be wet floodproofed to protect the structure from hydrostatic pressure. The design must meet the NFIP design and performance standards for openings per 44 C.F.R. § 60.3(c)(5) and must allow for the automatic entry and exit of floodwaters without manual operation or the presence of a person (or persons).

David Maurstad
FEMA Deputy Associate Administrator for the Federal Insurance and Mitigation Administration (FIMA)

02/12/20

FEMA

ADDITIONAL INFORMATION

REVIEW CYCLE

FEMA Policy #104-008-03: Floodplain Management Requirements for Agricultural Structures and Accessory Structures will be reviewed, reissued, revised, or rescinded within 4 years of the issue date.

AUTHORITIES

A. Homeland Security Act of 2002, Pub. L. No. 107-296
B. Executive Order 11988: Floodplain Management, 42 FR 26951, May 24, 1977
C. National Flood Insurance Act of 1968, as amended, 42 U.S.C. § 4001 *et seq.*

REFERENCES

A. 42 U.S.C. § 4022 and § 4102 State and Local Land Use Controls; Criteria for Land Management Use
B. 44 C.F.R. § 59.1 National Flood Insurance Program Regulations
C. 44 C.F.R. § 60.1 Purpose of Subpart A – Requirements for Flood Plain Management Regulations
D. 44 C.F.R. § 60.3 Flood Plain Management Criteria for Flood-Prone Areas
E. 44 C.F.R. § 60.6 Variances and Exceptions
F. American Society of Civil Engineers (ASCE) 24-14, Flood Resistant Design and Construction, January 2014
G. International Code Council, International Building Code, August 2017
H. FEMA 480, National Flood Insurance Program Floodplain Management Requirements, February 2005
I. FEMA Flood Insurance Manual, National Flood Insurance Program, Effective April 2019
J. FEMA P-936, Floodproofing Non-Residential Buildings, July 2013
K. [1]NFIP Technical Bulletin 1, Openings in Foundation Walls and Walls of Enclosures, August 2008
L. [1]NFIP Technical Bulletin 2, Flood Damage-Resistant Materials Requirements, August 2008
M. [1]NFIP Technical Bulletin 3, Non-Residential Floodproofing – Requirements and Certification, April 1993
N. [1]NFIP Technical Bulletin 5, Free-of-Obstruction Requirements, August 2008
O. [1]NFIP Technical Bulletin 7, Wet Floodproofing Requirements, December 1993
P. FEMA P-993, Floodplain Management Bulletin – Variances and the National Flood Insurance Program, July 2014
Q. FEMA Directive 108-1, Environmental Planning and Historic Preservation Responsibilities and Program Requirements, August 2016
R. FEMA Instruction 108-1-1, Instruction on Implementation of the Environmental Planning and Historic Preservation Responsibilities and Program Requirements, August 2016

[1] Reference items K - O are available at https://www.fema.gov/media-library/resources-documents/collections/4

FEMA

DEFINITIONS

A Zone – designated in FEMA's Flood Insurance Studies and Flood Insurance Rate Maps as zones labeled A, AE, A1-30, AH, AO, and AR/A99

Accessory Structure – a structure, as defined in 44 C.F.R. § 59.1, which is on the same parcel of property as a principal structure and the use of which is incidental to the use of the principal structure; specifically excludes structures used for human habitation

Agricultural Structure – a structure, as defined in 44 C.F.R. § 59.1, which is used exclusively in connection with the production, harvesting, storage, raising, or drying of agricultural commodities and livestock; specifically excludes any structures used for human habitation

Base Flood Elevation (BFE) – the height of the flood having a 1 percent chance of being equaled or exceeded in any given year

Community – any State or area or political subdivision thereof (such as county, city, township, village), or any Indian tribe or authorized tribal organization, or Alaska Native village or authorized native organization, which has authority to adopt and enforce floodplain management regulations for the areas within its jurisdiction

Development – any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials

Dry Floodproofing – a combination of measures that results in a structure, including the attendant utilities and equipment, being watertight with all elements substantially impermeable to the entrance of floodwater and with structural components having the capacity to resist flood loads

Exception – a waiver from the NFIP regulations for floodplain management requirements found in 44 C.F.R. § 60, granted by FEMA and directed to a community, which relieves the community from the requirements, regulation, order, or other determination made or issued pursuant to the NFIA, as amended

Floodplain/Floodprone Area – any land area susceptible to being inundated by water from any source

Floodplain Management – the operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans; flood control works; and such State, Tribal, territorial, or local regulations, ordinances, and building codes that provide standards for the purpose of flood damage prevention and reduction

Hardship – the inability to comply with an NFIP floodplain management regulation and make reasonable use of a property because of unusual physical and topographical conditions that are unique to the property, are not caused by the applicant, and pertain to the land and not any structures, its inhabitants, or the personal circumstances of the property owner

Local Floodplain Administrator – the local official or other person designated by a community as responsible for administering NFIP floodplain management regulations

Lowest Floor – the lowest floor of the lowest enclosed area of a structure, including a basement. Any NFIP-compliant unfinished or flood-resistant enclosure used solely for parking of vehicles, building access, or storage (in an area other than a basement) is not considered a structure's lowest floor.

National Flood Insurance Act of 1968 (NFIA) – created the Federal Insurance Administration and made federal flood insurance available for the first time

National Flood Insurance Program (NFIP) – a program enacted by Congress intended to reduce the impact of flooding on private and public structures by making federal flood insurance available within communities that adopt and enforce NFIP floodplain management regulations

New Construction – (for floodplain management purposes) structures for which the start of construction commences on or after the effective date of an NFIP floodplain management regulation adopted by a community and includes all subsequent improvements to the structures

Opening – open area or space within a wall that meets certain performance characteristics related to allowing the automatic entry and exit of floodwaters

Special Flood Hazard Area (SFHA) – the land in the floodplain within a community subject to a 1 percent or greater chance of flooding in any given year. The SFHA is inclusive of A Zones and V Zones.

State/Tribe/Territory Coordinator – the person, office, or agency of the State government designated by the Governor of the State/**Tribe/territory**, or by State/**Tribe/territory** statute, that assists in the implementation of the NFIP in that State/Tribe/territory

Structure – (for floodplain management purposes) a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home. Walled and roofed shall be interpreted as two outside rigid walls and a fully secured roof

Substantial Damage – 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

Substantial Improvement – any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure (or a smaller percentage if established by the community) before the start of construction of the improvement

Variance – a grant of relief by a community from the terms of an NFIP requirement for floodplain management regulations

V Zone – area of the SFHA that is inundated by tidal floods (coastal high hazard area) as designated in FEMA's Flood Insurance Studies and Flood Insurance Rate Maps; zones labeled V, VE, V1-30, and VO

Wet Floodproofing – use of flood damage-resistant materials and construction techniques to minimize flood damage to a structure by intentionally allowing floodwaters to enter and exit automatically (without human intervention)

MONITORING AND EVALUATION

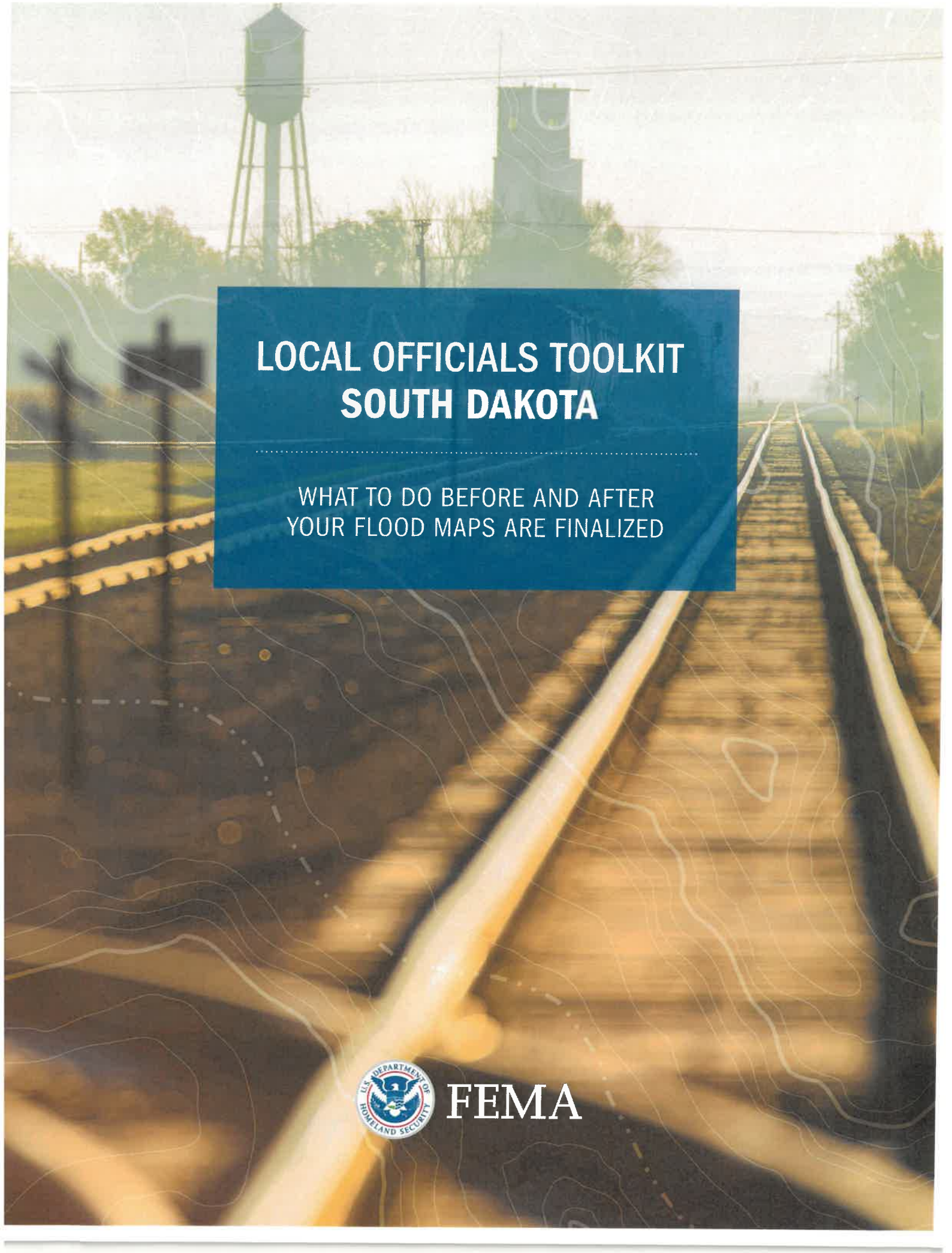
The efficacy of this policy shall be monitored as a joint effort of local floodplain administrators, NFIP State/Tribe/territory Coordinators, and FEMA through data and documentation available from regular inspections of structures, monitoring and recording of building performance, Community Assistance Visits and Contacts conducted by FEMA or State/Tribe/territory NFIP personnel, permit and variance records, federal flood insurance policy data, and the Community Information System (CIS).

FEMA Headquarters will utilize the data and documentation to evaluate of the effectiveness of this policy and inform policy review, reissuance, revision, or rescission.

QUESTIONS

Questions regarding implementation or clarification of this policy should be directed to a community's FEMA Regional Office.

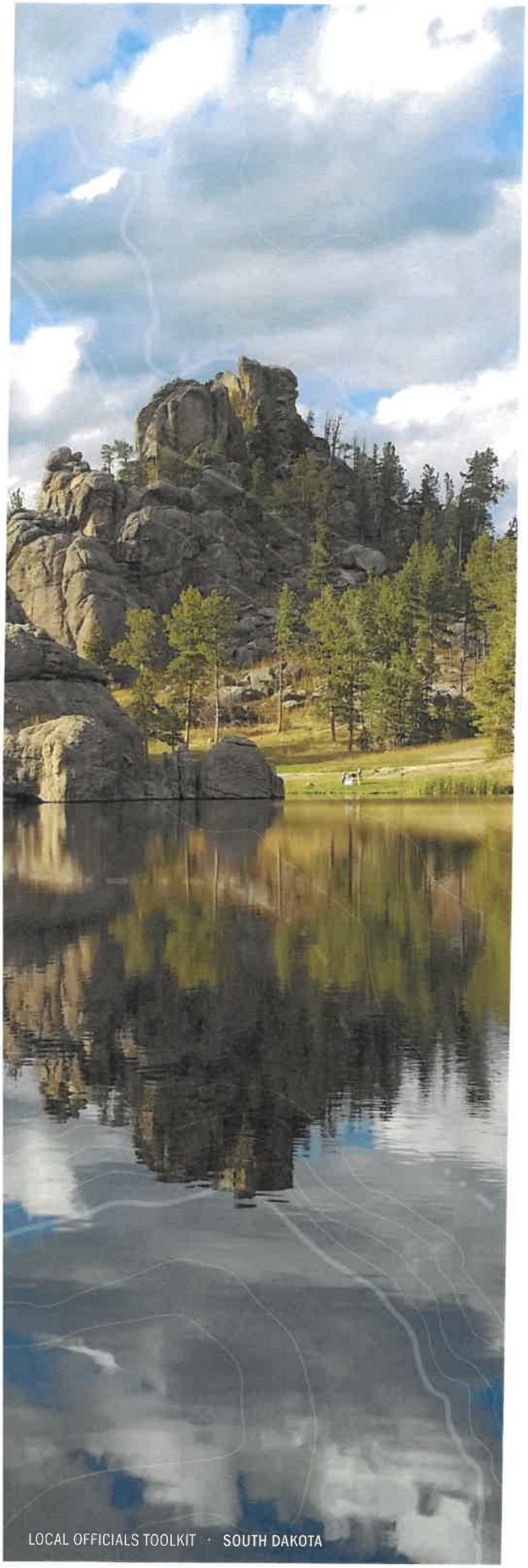
Regional offices seeking guidance, outreach, training, or clarification on this policy may direct questions to the FEMA Floodplain Management Division: *FEMA-Floodplain-Management-Division@fema.dhs.gov*.



LOCAL OFFICIALS TOOLKIT
SOUTH DAKOTA

WHAT TO DO BEFORE AND AFTER
YOUR FLOOD MAPS ARE FINALIZED

FEMA



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OVERVIEW

Your role as a local official includes communicating with a wide range of audiences. This includes residents, business owners and other community officials. As a recent participant in FEMA's Risk Mapping, Assessment and Planning (Risk MAP) program, you know communicating risks from natural hazards like flooding can be hard. Some residents do not see how a disaster that has not yet happened will affect their neighborhood or business. Even if they know the risk, they may not take the right steps to prepare.

Your community has updated flood maps on the way. As such, FEMA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 29 tribal nations) has compiled this Local Officials Toolkit to explain each Risk MAP phase and share steps you can take to support your community in protecting the people and things it values most. The toolkit offers resources to talk about flood risk with other officials and the public during the flood mapping process.

Find your maps:

FEMA Map Service Center:
https://msc.fema.gov/portal/home

South Dakota Map Journal

You can use this toolkit to:

Learn what comes next in Risk MAP.
This toolkit will explain what your community should do during each phase. It will also share resources to support you.

Identify outreach tactics.
The toolkit has templates and examples to help teach community officials and local property owners how the flood map updates will affect them.

Encourage developers and property owners to take mitigation actions.
The toolkit describes projects that can reduce flood risk and loss of life and property. Projects include relocating floodprone structures and elevating utilities.

Collaborate with community leaders.
Explain the benefits of being prepared for a flood event.

The Risk MAP Process

FEMA's Risk Mapping, Assessment and Planning (Risk MAP) program gives communities flood hazard information and tools to help them protect lives and property. Flood Insurance Rate Maps (FIRMs) are one of the tools used to pinpoint areas in your community that are at risk of flooding. Flood maps also help guide your community's decisions on new developments, renovations, repairs and investments. For instance, local builders can use the maps to learn where further building requirements may apply (e.g., for structures within the higher risk areas shown as Special Flood Hazard Area or SFHA). Communities that participate in the National Flood Insurance Program (NFIP) have adopted flood damage prevention regulations to manage risk. Emergency managers can use FIRMs to find areas of high flood risk and choose mitigation projects that reduce flood risk.

The Risk MAP process usually includes these phases to create flood maps:

Pre-Discovery: FEMA learns about the community's current flood mapping needs and discusses flood risk with state, local and tribal officials. With the help of stakeholders like local officials, FEMA compiles new technical data. The agency also gathers information about the community's unique needs. FEMA Region 8 typically has a kickoff meeting to start the assessment of the project area.

Discovery: FEMA and project stakeholders meet to review the data collected in the Pre-Discovery stage. In this phase, FEMA will also talk with the community about historical flooding events, critical infrastructure, development, and areas of concern.

Data Development and Flood Risk Review: FEMA will use the data compiled during Discovery to develop a preliminary engineering model and flood risk database. This model will help FEMA assess and develop the flood hazard information. Once the areas that are most at risk have been identified, FEMA will hold a Flood Risk Review meeting with local officials. Attendees will review draft maps and discuss potential changes.

Preliminary Map Release: FEMA uses the data from the previous phase to create flood map products, including preliminary flood maps and a Flood Insurance Study (FIS). These maps follow FEMA's mapping guidance and standards. The preliminary FIRM database also includes a flood risk database that goes beyond the basic flood hazard information found in the official regulatory products. These products provide a more user-friendly analysis of flood risks within a Risk MAP project because they communicate flood risk visually and can help community officials in their outreach efforts. The FIS compiles flood information into an in-depth study that includes the maps and detailed flood elevation data. After the preliminary maps are released, communities can review the maps and the FIS.

FEMA first engages local officials in a **Consultation Coordination Officer (CCO) meeting** to discuss the new maps and potential changes. Community leaders may then work with FEMA to introduce the draft maps to the community at a **Public Open House**.

After the preliminary maps are issued, FEMA starts a **90-day public comment and appeal period.** This takes place before the maps become final.

The primary purpose of a Public Open House

To engage with the local community and share information about local risks and hazards. Public Open Houses provide an opportunity for community members to share their challenges, receive answers to questions and gain a clearer understanding of their risk. Community members also possess intimate knowledge about their neighborhoods, historical flood events, and local information that could be useful to the Risk MAP process. Public Open Houses are a platform for members of the community to share this knowledge.

Public Open Houses are an integral part of the Risk MAP process as they facilitate community engagement and information sharing. By involving the public, FEMA and communities can develop a more accurate understanding of risk and increase community buy-in.

Letter of Final Determination and Effective Maps: Once any comments or appeals are resolved, the maps are finalized, and the LFD is issued. The date that appears on the LFD is the start of the six-month "adoption and compliance period." This gives time for each participating community to amend its floodplain development regulations and adopt the new FIRM and FIS.

During this time, property owners in NFIP-participating communities can also buy flood insurance before the maps take effect and are encouraged to do so. Flood insurance will be a requirement if a property is shown in a high hazard area and the property owner has a federally backed mortgage or loan. Purchasing insurance prior to when the maps becomes effective may help property owners get a lower premium. When the final FIRMs go into effect, they become the official regulatory maps to use for floodplain management and flood insurance requirements.

Newly identified communities that do not have a map will have one year after they are identified as floodprone (the FIRM effective date) to join the program.

Participation in the NFIP is voluntary. To join, the community must:

- Complete an application.
- Adopt a resolution of intent to participate and cooperate with FEMA.
- Adopt and submit a floodplain management ordinance that meets or exceeds the minimum NFIP criteria. The floodplain management ordinance must also adopt any FIRM or Flood Hazard Boundary Map (FHBM) for the community.

The federal government makes flood insurance available throughout participating communities.

If they do not join, sanctions will apply, which may limit certain types of federal assistance. Communities that previously took part in the NFIP and were suspended or withdrew from the program may apply to the FEMA regional office for reinstatement. To do so, they must submit:

- A local legislative or executive measure that reaffirms the commitment to comply with the NFIP criteria.
- Evidence that all program deficiencies have been corrected.
- Evidence that any violations have been resolved to the maximum extent practicable.

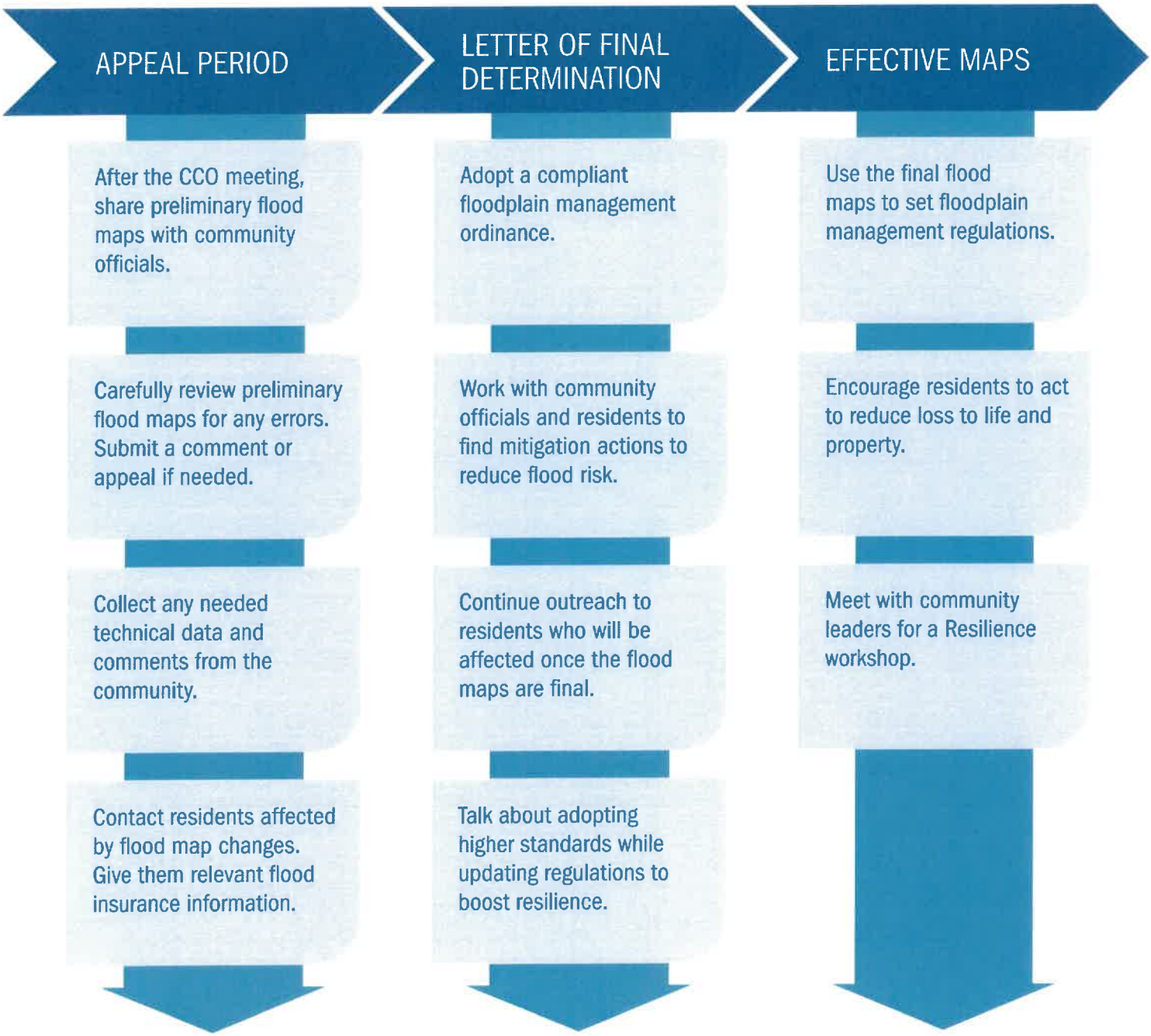
The Community Rating System (CRS) is a voluntary incentive program. It recognizes and encourages community floodplain management practices that exceed the minimum requirements of the NFIP. Over 1,500 communities take part across the nation. In CRS communities, flood insurance premium rates are discounted to reflect the reduced flood risk from the community's efforts to address the program's three goals:

1. Reduce and avoid flood damage to insurable property.
2. Strengthen and support the insurance aspects of the NFIP.
3. Foster comprehensive floodplain management.

Resilience: After the maps take effect, FEMA and the community may hold Resilience meetings. These focus on how the new data can guide mitigation actions to further reduce risk in the community.

For local officials, much of the communication to the public follows the CCO meeting with FEMA.

Communicating to the Public in the Risk MAP Process



This toolkit and its resources are meant to support your efforts as a local official to reduce flood risk. Residents must receive this information from you as they make decisions about flood risk, preparedness, and flood insurance that will affect their livelihood. With support from FEMA, the toolkit will give you the information you need to help your community make informed choices and mitigate flood risk.

Appeal Period

The appeal period is your community's opportunity to provide technical information or comments in response to the preliminary data you receive from FEMA. During the appeal period, the community official or floodplain administrator must collect all appeals and send them as one package to the FEMA Region 8 project officer. This must be done before the appeal period ends.

What's the difference between an appeal and a comment?

Appeal

A formal, written objection to changes to the flood hazard information shown on the preliminary FIRM. Appeals must be based on technical data that show the proposed flood hazard information is scientifically or technically wrong. Appeals usually involve changes to BFEs, base flood depths, SFHA boundaries or zone designations, and/or regulatory floodways.

- Must be supported by engineering data.
- Suggest changes to flood hazard data. These include Base Flood Elevations (BFEs) and Special Flood Hazard Areas (SFHAs).

Comment

A request for changes to information shown on the preliminary FIRM and in the FIS report that is not flood hazard data. Comments usually involve changes to items such as road locations, road names, corporate limits updates, or other base map features.

- Do not need support from engineering data.
- Suggest changes to non-flood hazard data. These include road name changes and corporate limit boundaries.

Consider the following actions just prior to and during the Appeal Period:

1. Share the preliminary maps with all local officials and key stakeholders. These include local floodplain administrators, building officials, elected officials, and zoning administrators.

2. Carefully review preliminary maps for errors. Take the following actions to address potential errors:
   a. Submit an appeal: Work with an engineer to submit an appeal supported by technical or scientific data to FEMA.
   b. Submit a comment: Send comments to your FEMA Region 8 Project Officer.

3. Reach out to business and property owners affected by the flood map changes:
   a. Plan an Open House where the public can ask questions and learn how the new maps affect their property.
   b. Set up information booths at local community events.
   c. Send mailings to properties affected by upcoming map changes.

4. Start planning to adopt a compliant floodplain management ordinance that will establish or maintain your community's standing in the NFIP. Formal adoption of the regulation will take place during the six month "adoption and compliance period" that starts after the date of the LFD.

FEMA is providing the following resources:

- Sample letters to property and business owners affected by upcoming flood map changes
- Sample letter to government officials
- Sample outreach materials — Postcard

Questions about local responsibilities? Your State NFIP coordinating office is a great resource during this process. Please visit https://dps.sd.gov/emergency-services/emergency-management/mitigation/national-flood-insurance or contact the State NFIP Coordinator at 605-773-2199.

SAMPLE LETTER: PROPERTIES MAPPED OUT OF THE FLOODPLAIN

Dear [Property Owner/Renter]:

Flooding is the most costly and common natural disaster; it takes place in all 50 states. As our community changes over time, so does our flood risk. This occurs for reasons such as urban development, population growth, erosion, and shifting weather patterns. Knowing your flood risk is the first step to reducing it.

A multi-year project to reexamine [community name]'s flood zones and create detailed digital flood hazard maps has been completed. The new maps reflect current flood risk based on where the water is going and how deep it will be, as well as the input of local experts who know the area best. As a result, you and other property owners throughout the [county/community] will have up-to-date, electronically available information about flood risk to your property.

How will the flood map changes affect you?
Based on the new maps, your property is no longer designated as a high-risk flood zone. This zone is also known as the Special Flood Hazard Area (SFHA). Structures outside of the SFHA are not required to buy flood insurance. That said, we strongly advise that you maintain flood insurance coverage. Your flood risk has only been reduced, not removed. Flooding in areas that are considered moderate to low risk is less common but can still cause major damage. Risk is increasingly dynamic. Given the consideration of future conditions, historic events are not the only determinant of future hazards.

[Include if appeal period has not yet occurred] How do I view the flood maps?
The new maps are still in the preliminary phase. This means the map provides an early look at a property's projected flood risk. As such, we can now review them together and share feedback. You can view the preliminary maps online through a map viewer provided by FEMA. [insert map viewer link]

In the coming months, a notice will appear in our local newspaper, the [insert name of newspaper]. This notice will indicate the start of a 90-day formal appeal period. If you have engineering or mathematical data that could lead to a large-scale change on the map, please reach out to [community official name] at [email address].

[Include if appeal period has ended] What is the map update timeline?
The preliminary maps show an early look at a property's potential flood risk. These maps were released to [county/community name] on [date]. After their release, FEMA and its partners held a meeting with [county/community name] to talk about how the maps will affect property owners. After that meeting, a 90-day appeal period started on [date] and ended on [date].

During that time, [county/community] residents and officials had the chance to submit comments and appeals, supported by engineering data, related to errors they found in the flood hazard data. Now that the appeal period has passed, FEMA and its partners will finalize the maps. FEMA will alert the community that the maps should be considered final through a Letter of Final Determination (LFD).

We encourage you to view the preliminary maps online through [insert map viewer link]. If you have questions about the flood map updates or insurance, you can reach out to your local floodplain administrator [floodplain administrator name and contact] or the FEMA Map Information eXchange (FMIX), toll free, at 1-877-FEMA-MAP (1-877-336-2627), or by email at FEMA-FMIX@fema.dhs.gov. You can find more details on flood insurance at www.floodsmart.gov.

SAMPLE LETTER: PROPERTIES MAPPED INTO THE FLOODPLAIN

Dear [Property Owner]:

Flooding is the most costly and common natural disaster; it takes place in all 50 states. As our community changes over time, so does our flood risk. This occurs for reasons such as urban development, population growth, erosion, and shifting weather patterns. Knowing your flood risk is the first step to reducing it.

A multi-year project to reexamine [community name]'s flood zones and create detailed digital flood hazard maps has been completed. The new maps reflect flood risk based on the latest data and more accurate knowledge of our area's topography. As a result, you and other property owners throughout the [county/community] will have up-to-date, electronically available information about flood risk to your property.

How will these changes affect you?
Based on the new maps, **your property has been designated to be in a higher-risk flood zone**. This zone is known as the Special Flood Hazard Area (SFHA). If you have a mortgage from a federally regulated lender and your property is in the SFHA, you are required by federal law to carry flood insurance when these maps take effect.

We recommend that you use this time to contact your insurance agent to get the best rate. You can also learn about options that the National Flood Insurance Program (NFIP) offers for properties mapped into higher-risk areas for the first time.

If you do not have a federally backed mortgage, we still **strongly recommend** that you buy flood insurance. Most homeowners insurance policies do not cover damage due to flooding. To learn more about flood insurance rates and what your options are, we recommend that you reach out to your insurance agent.

An extra resource for property owners, both with and without a mortgage, is www.floodsmart.gov. This resource gives you details about the NFIP and the costs of flood insurance.

[Include if appeal period has not yet occurred] How do I view the flood maps?
The new maps are still in the preliminary phase. This means they are an early look at a property's projected flood risk. As such, we can now review them together and share feedback with FEMA. You can view the preliminary maps online through a map viewer provided by FEMA. [insert map viewer link]

In the coming months, a notice will appear in our local newspaper, the [insert name of newspaper]. This notice will indicate the start of a 90-day formal appeal period. If you have engineering or mathematical data that could lead to a change on the map, please reach out to [community official name] at [email address].

[Include if appeal period has ended] What is the map finalization timeline?
The preliminary maps show an early look at a property's projected flood risk. These maps were released to the [county/community name] on [date]. After the release, FEMA and its partners held a meeting with [county/community name] to talk about how the preliminary maps will affect property owners. After that meeting, a 90-day appeal period started on [date] and ended on [date].

During this period, [county/community] had the chance to submit appeals, supported by engineering data, related to errors found in the flood hazard data. Now that the appeal period has passed, FEMA and its partners will finalize the maps. FEMA will alert the community that the maps should be considered final through a Letter of Final Determination (LFD).

We encourage you to view the preliminary maps online through [insert map viewer link]. If you have questions about the flood map updates or insurance, you can reach out to your local officials or the FEMA Map Information eXchange (FMIX), toll free, at 1-877-FEMA-MAP. You can find more details on flood insurance at www.floodsmart.gov.

SAMPLE LETTER TO GOVERNMENT OFFICIALS

Not all community officials may be able to take part in the CCO meeting. You might find you also need to brief others in your government on key takeaways or next steps related to the map update. Here is a sample of an email you can edit and send on the status of the flood mapping effort.

Dear [Name]:

Our community officials have been engaged in a years-long process with FEMA to obtain updated flood risk data to reduce risk in the community.

How will these changes affect our community?
Properties will likely be affected in different ways. Some properties will have a higher flood risk than in previous studies, and some properties will have a lower flood risk. For some properties, flood risk will stay the same. Once the data and maps that show changes to the floodplain are final, our community will use them to adopt a compliant floodplain management ordinance. We must be aware of changes to the flood maps for a few reasons:

- In the Special Flood Hazard Area (SFHA), there is at least a 1-in-4 chance of flooding during a 30-year mortgage. **If a property is no longer shown to be in the SFHA, federal flood insurance may no longer be required.** However, flooding in areas that are considered moderate to low risk is less common but can still cause major damage. Risk is increasingly dynamic. Given the consideration of future conditions, historic events are not the only determinant of future hazards.

  Still, you are strongly advised to maintain flood insurance; anywhere it rains, it can flood. In fact, 40% of NFIP claims made from 2017 to 2019 were for properties outside official flood hazard zones. If you live in an area of minimal flooding, you may qualify for a low-cost Preferred Risk Policy.

- **Properties in the SFHA with federally backed mortgages must have flood insurance.**

  When just 1 inch of water in a home can cost more than $25,000 in damage, **flood insurance can be the difference between recovery and financial ruin.** The NFIP provides flood insurance coverage; local insurance agents can work with property owners to confirm rates.

When do the flood risk maps go into effect?
The maps are still preliminary. A 90-day appeal period will start on [date] and end on [date]. During this period, members of the community will have the chance to submit engineering data with an appeal about their individual property or the overall accuracy of the preliminary flood maps. To talk about or submit a comment or appeal, please reach out to [name] at [email address].

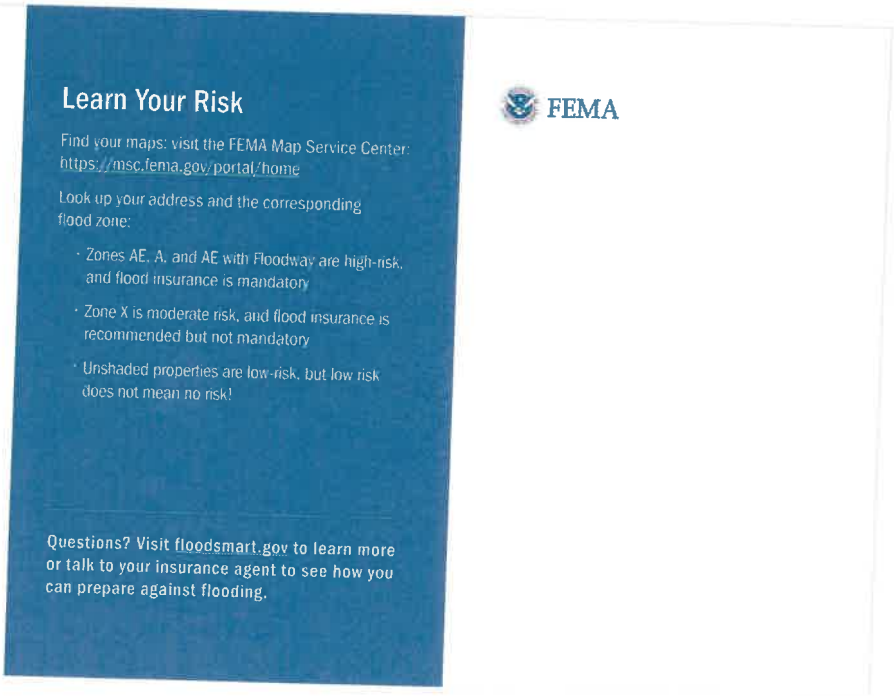
To learn more about the flood map updates, you can visit FEMA.gov, FEMA's Map Service Center, or FEMA's Flood Map Changes Viewer.

Please let me know if you have any questions about the new flood maps and the steps that we will take before these maps go into effect.

[Sign-off]

Find your Flood Map Postcard

You can share the below postcard (included at the end of this toolkit) with your community. It will help them learn their flood risk and encourage them to review the preliminary maps. While varying communication tactics work for different communities, print materials are versatile and can be impactful in reaching most audiences, including rural communities. We recommend using this postcard in a variety of ways to help enhance your reach. This includes mailings and community outreach events.



Letter of Final Determination (LFD)

Your community's preliminary flood map is now considered a final flood risk map. Over the next six months, lenders will refer to these maps to determine whether structures must have flood insurance. The map will become the official regulatory tool six months from the date FEMA issues a Letter of Final Determination (LFD)

Participating communities:
If you are a local official whose community participates in the National Flood Insurance Program (NFIP), you must adopt a compliant flood damage prevention ordinance within those six months before the maps become effective. Failure to adopt this ordinance will suspend your community from the NFIP. A nonparticipating community faces sanctions. This could include loss of federal assistance.

Participating communities should consider the following actions after receiving an LFD:

1. Adopt a compliant flood damage prevention ordinance. Regulations must meet or exceed the minimum NFIP requirements to be compliant.
2. Encourage local officials to work with local permitting offices to raise awareness for permitting requirements in the Special Flood Hazard Area (SFHA).
3. Adopting higher standards to make high flood hazard areas safer.
4. Identify mitigation projects to reduce flood risk in your community. Such projects work to reduce the loss of life and property. Examples include:
   a. Adopting and enforcing stricter building codes for new development.
   b. Acquiring, elevating or relocating structures that are in floodprone areas.
5. Encourage residents to take up mitigation projects for their properties. Examples of low-cost projects include:
   a. Elevating utilities and service equipment
   b. Sealing foundations and basement walls
   c. Prevent sewer backups by keeping sewer lines clear of tree roots and regularly replacing old pipes.
   d. Maintaining proper stormwater runoff and drainage
   e. Installing a rain barrel to capture rainwater for later use such as on lawns, gardens or indoor plants.
6. Find a community champion(s) to lead mitigation projects and encourage flood risk preparedness.
7. Continue to reach out to business and property owners whom the flood map changes affect.

FEMA is providing the following resources:
- Brochure: Why Do I Need Flood Insurance?
- Brochure: Preferred Risk Policy for Homeowners and Renters
- Brochure: Protect Your Home from Flooding – Low Cost Options You Can Do Yourself

Non-participating communities:
If you are a community that is newly determined to be floodprone and you do not have a map yet, you will have one year after the FIRM effective date to join the program. If you do not, sanctions will apply. To join the NFIP, a community must:

1. Adopt a resolution of intent to take part and cooperate with FEMA.
2. Adopt and submit a floodplain management ordinance that meets or exceeds the minimum NFIP criteria.

Communities that previously took part in the NFIP and were suspended or withdrew from the program may apply to the FEMA regional office for reinstatement. They must submit the following:

1 A local legislative or executive measure that reaffirms the commitment to comply with the NFIP criteria.

2 Evidence that all program deficiencies have been corrected.

3 Evidence that any violations have been resolved as much as possible.

FEMA is providing the following resources:
- Brochure: Why Do I Need Flood Insurance?
- Brochure: Protect Your Home from Flooding – Low Cost Options You Can Do Yourself
- NFIP Floodplain Management Requirements

Effective Maps

Six months have passed since your community received FEMA's Letter of Final Determination (LFD). Your community's new Flood Insurance Rate Map (FIRM) and Flood Insurance Study (FIS) report are now in effect.

As a local official, you will use these maps to continue to manage development in Special Flood Hazard Areas (SFHAs). Federally insured or regulated lenders will use the new maps to decide if loans must require flood insurance.

Work with community officials, residents, and business owners to continue the conversation and increase awareness of flood risk and flood insurance options. This can also help you pinpoint local mitigation strategies to reduce risk.

Insurance rating options can offer savings

Buildings newly mapped into the SFHA may be eligible for a lower premium during the first 12 months after a map change. Rates will then go up, no more than 18% each year, until they reach their full actuarial rate. Property owners can also speak to their insurance agents to learn how to save on their policies. If an owner sells their property, the policy can transfer to the buyers. This will let them keep the existing rate.

Take the following actions when your community's flood risk maps go into effect:

1. Use effective FIRMs to set floodplain management regulations and manage new development in SFHAs.

2. Encourage community leaders to take part in the local hazard mitigation planning process.
   a. A mitigation plan is a community-driven document. It notes the areas that are most vulnerable to or at risk of natural hazards. It also lays out a strategy to reduce those risks. FEMA's Hazard Mitigation Assistance program supports cost-effective projects to reduce risk.
   b. Encourage community leaders and property owners to take on mitigation projects as part of this planning process. Examples include:
      i. Acquiring and relocating or demolishing properties at risk of severe flooding.
      ii. Creating a buffer area by protecting natural resources. These include floodplains, wetlands, and sensitive riparian habitats.
      iii. Carrying out stormwater management and drainage improvements.
      iv. Elevating utilities.
      v. Encouraging the use of rain barrels used to capture rainwater for later use such as on lawns, gardens or indoor plants.

3. If you have not done so already, alert property owners and renters who are in high-risk flood areas that the new flood risk maps are in effect. Tell them about their insurance options.

4. If property owners believe that their property is wrongly mapped in the SFHA, they can submit a Letter of Map Change (LOMC) application.
   a. They can apply online or by mail. In most cases, FEMA requires a certified professional to evaluate the elevation of a structure. To learn more, visit www.fema.gov/letter-map-changes.

FEMA is providing the following resources:

- Brochure: Protect Your Home from Flooding – Low Cost Options You Can Do Yourself
- Local Hazard Mitigation Planning Fact Sheet

FREQUENTLY ASKED QUESTIONS

Q: What is a flood map? Why does our community need one?

A: Flood maps note areas in our community that are at high risk of flooding. Flood maps also guide our local community's decisions on developments, renovations and investments. For instance, local builders may use the maps to learn where extra building requirements may apply (e.g., for structures within the Special Flood Hazard Area [SFHA]).

Q: Why are the flood maps changing?

A: Flood risk changes over time. This occurs due to urban developments, population growth, better technology, and climate change. Maps are updated to better show our community's current flood risk. These data can be used to inform measures that can be taken to protect people and property.

Q: How are new flood maps created?

A: Flood maps are a joint effort among the community, state officials and FEMA. The maps are created with current and historic flood-related data. These data relate to infrastructure, land use, hydrology, hydraulics, and current flood risk maps.

Q: I've lived in my house for 30 years, and it has never flooded. Why am I in a SFHA now?

A: Anywhere it can rain, it can flood. As flood risks change over time, your property may now be in a high-risk flood zone. This could be due to nearby developments, climate change, or just better data. Of all U.S. counties, 98% have experienced a flood. Even if your property has not flooded before, you are still at risk for a potential flood event. Also, if you are in an SFHA, your home has a higher chance of flooding. In the SFHA, there is at least a 1-in-4 chance of flooding during a 30-year mortgage.

Q: Will I have to buy flood insurance?

A: Structures in the high-risk area, known as the SFHA, must have flood insurance if they have a federally backed loan. If a structure is in the SFHA and under a federally backed mortgage, banks will most likely require owners to carry flood insurance to protect their investment.

Q: If I'm not in the SFHA, do I need to buy flood insurance?

A: Lenders may require flood insurance if you are near the SFHA. Still, FEMA encourages everyone to buy flood insurance, even if they are not in the SFHA. Floods are the most common and costly natural disaster in the U.S. Flood insurance can help people recover more quickly after a flood. Disaster assistance will not make you whole, but insurance can if you have the proper coverage.

Q: Why do I even need flood insurance?

A: Most homeowners policies do not cover flood damage. Just 1 inch of water can cause $25,000 worth of damage. Flood insurance protects you and your property. It also helps you to recover more quickly after a flood.

RESOURCES

Below are more resources for you and your community:

COMMUNITY OFFICIALS

- South Dakota Risk MAP Map Journal: Details of Risk MAP Projects in South Dakota.
- Flood Maps: Know Your Risk Infographic: An infographic that lays out the Risk MAP process and explains how flood maps are created.
- What is Risk MAP Fact Sheet: A fact sheet on the Risk MAP program, its goals, and how it supports other measures.
- National Flood Hazard Layer (NFHL): A database with the current effective flood data.
- Floodplain Management Resources: More floodplain management resources for local community officials.
- Letter of Map Amendment (LOMA) Resources: Information on submitting a LOMA.
- Letter of Map Change (LOMC) Resources: Information on submitting a LOMC
- Community Rating System (CRS) Resources: Details about the CRS and current eligible communities.
- FEMA Flood Map Service Center: Another way to view maps in your state.
- Flood Safety Social Media Toolkit: A guide for using social media to raise flood safety awareness.
- Contact Us: FEMA Region 8: Reach out to Region 8 to learn more or to ask questions.
- Flood Risk Communication Video Series: An infographic that lays out the Risk MAP process and explains how flood maps are created.

PROPERTY OWNERS

- South Dakota Risk MAP Map Journal: Details of Risk MAP Projects in South Dakota.
- FloodSmart.gov: Learn more about the National Flood Insurance Program (NFIP) and how to enroll.
- Brochure: Protect Your Home From Flooding – Low Cost Options You Can Do Yourself: A brochure with low-cost mitigation ideas that could lower premiums and protect your home from flooding.
- Brochure: Why Do I Need Flood Insurance?: A brochure on the NFIP and how it helps property owners.
- National Flood Insurance Program (NFIP) Resources: More information on the NFIP from FEMA.gov
- Protect Your Property from Flooding: Details about mitigation ideas that can protect your home from flood damage.
- FEMA Flood Map Service Center: Another way to view maps in your state.
- Flood Risk Basics and Communities: A video about how communities have the ability to lower their flood risk
- Introduction to Risk MAP: A video about how communities can partner with FEMA with the Risk MAP program.

FEMA

Fact Sheet

Federal Insurance and Mitigation Administration

FEMA Disaster Assistance When a Community is Not Participating in the NFIP

A community's participation in the National Flood Insurance Program (NFIP) is voluntary. However, when a community has been identified by the Federal Emergency Management Agency (FEMA) as an area with special flood hazards, and the community is not participating in the NFIP, the community may be sanctioned and financial assistance for acquisition or construction purposes, including, in some cases, Federal disaster assistance, may not be available in those areas.

This fact sheet provides information to individuals and communities on the receipt of FEMA disaster assistance when a community is not participating in the NFIP.

Community Participation in the NFIP

The NFIP can provide flood insurance coverage only in those states and communities that adopt and enforce floodplain management measures that meet the minimum NFIP requirements set by regulation.[1] Participation in the NFIP is voluntary, and communities must apply to participate. FEMA identifies Special Flood Hazard Areas (SFHAs) - the land area in the floodplain subject to a 1 percent or greater chance of flooding in any given year - on Flood Insurance Rate Maps (FIRMs).

Newly identified communities that do not have a map will have one year after they are identified as floodprone (the FIRM effective date) to participate in the NFIP, or sanctions apply.[2] Sanctions also apply to communities participating in the NFIP that are suspended or withdraw from the program.[3] When a community is sanctioned, Federal officers and agencies are prohibited from approving any financial assistance for acquisition or construction purposes in an area of special flood hazard in the community.[4]

Financial assistance for acquisition or construction purposes includes:

- Financial assistance for the acquisition, construction, reconstruction, repair, or improvement of any publicly or privately owned building or mobile home, and for any machinery, equipment, fixtures, and furnishings contained or to be contained therein.
- The purchase or subsidization of mortgages or mortgage loans.
- Federal disaster assistance in connection with a flood under the Stafford Act.

To determine if a community participates in the NFIP, consult FEMA's Community Status Book at https://www.fema.gov/national-flood-insurance-program-community-status-book.

Federal Disaster Assistance Limitations

As stated, previously, when a community is sanctioned, Federal officers and agencies are prohibited from approving any financial assistance for acquisition or construction purposes in an area of special flood hazard in the community. This restriction does not apply to Federal disaster assistance under the Stafford Act, unless the assistance is in connection with a flood.[5]

Table 1 below lists the specific restrictions that apply to disaster assistance in SFHAs in non-participating communities, and it is followed by more detailed information about the restrictions.

	Always Eligible	Eligible in Disasters Other Than Flood
Public Assistance–Emergency Work	✓	
Public Assistance–Permanent Work		✓
Individual Assistance–Rental Assistance	✓	
Individual Assistance–Other Needs Assistance	✓	
Individual Assistance–Real and Personal Property		✓ (unless items are uninsurable)
Hazard Mitigation		✓

[1] 42 U.S.C. § 4012(c); 44 C.F.R. Part 60.
[2] Id. § 4105.
[3] 44 C.F.R. § 59.24.
[4] 42 U.S.C. § 4106.
[5] 42 U.S.C. § 4003.

Public Assistance (PA) Program

- **Eligible:** Emergency Work

  No restrictions apply. Eligible debris removal efforts and emergency protective measures under Sections 403, 407, and 502 of the Stafford Act (42 U.S.C. §§ 5170b, 5173, and 5192) are still eligible in communities that do not participate in the NFIP.

- **Not Eligible:** Permanent Work

  The permanent repair, restoration, or replacement of otherwise eligible facilities under Section 406 of the Stafford Act (42 U.S.C. §5172) are not eligible under PA for those facilities located in an identified SFHA, when that community is not participating in the NFIP and the damages were incurred by flood. (Consideration may be given for approved alternate projects when such projects are located outside of the SFHA.) PA will provide assistance for uninsurable facilities, i.e. bridges, roads, walkways, etc.

Individual Assistance (IA) Program

Housing Assistance

- **Eligible:** Rental assistance or lodging expenses, such as the reimbursement of hotel or motel expenses, or when rental properties are not available direct housing assistance may be provided.
- **Not-eligible:** Grants to permanently repair or replace insurable real and/or personal property, damaged by a flood.

Other Needs Assistance

- **Eligible:** Assistance for medical, dental, funeral costs, transportation and other expenses authorized under Section 408(e) of the Stafford Act (42 U.S.C. § 5174(e)). FEMA will consider referrals from the Small Business Administration (SBA) to meet these needs, when SBA denies a loan for such expenses and refers the application to FEMA.
- **Not-eligible:** Personal property losses that could have been insured by NFIP (such as appliances, clothing, and furniture).

In accordance with 44 C.F.R. § 206.110(k)(2), if a sanctioned community applies and joins the NFIP within six months of the federal disaster declaration, these limitations on federal disaster assistance will be lifted under the IA program.

Hazard Mitigation Grant Program (HMGP)

HMGP is one of three Hazard Mitigation Assistance (HMA) program grants that FEMA offers. HMGP mitigation sub-applications for projects sited within an SFHA are eligible only if the jurisdiction in which the project is located is participating in the NFIP. HMA grants cannot be given for acquisition or construction purposes if the site is located in a designated SFHA in a community that does not participate in the NFIP. Non-participating communities may submit projects to the HMGP only if the projects are located in an unmapped area or areas outside the SFHA. Refer to the current HMA Guidance for more information at http://www.fema.gov/hazard-mitigation-assistance.

For More Information

For further information on Federal disaster assistance from the SBA, the U.S. Department of Agriculture (USDA), and the Housing and Urban Development (HUD), visit the following:

- https://www.sba.gov/content/disaster-loan-program
- https://www.fsa.usda.gov/programs-and-services/disaster-assistance-program/index
- http://portal.hud.gov/hudportal/HUD?src=/info/disasterresources

If a community decides to participate in the NFIP, they may visit http://www.fema.gov/media-library/assets/documents/13610 to learn more about how to participate in the program, and the benefits of enrolling.