

Introduction to the National Flood Insurance Program (NFIP)

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Summary

The National Flood Insurance Program (NFIP) was established by the National Flood Insurance Act of 1968 (NFIA, 42 U.S.C. §4001 et seq.), and was most recently reauthorized to May 31, 2019, through a series of short-term reauthorizations. The general purpose of the NFIP is both to offer primary flood insurance to properties with significant flood risk, and to reduce flood risk through the adoption of floodplain management standards. Communities volunteer to participate in the NFIP in order to have access to federal flood insurance, and in return are required to adopt minimum standards.

FEMA manages a process, called Risk MAP, to produce Flood Insurance Rate Maps (FIRMs). Depicted on FIRMs are Special Flood Hazard Areas (SFHAs), which is the area exposed to a 1% or greater risk of annual flooding. FIRMs vary in age across the country, and are updated on a prioritized basis. The Risk MAP process provides extensive outreach and appeal opportunities for communities. Updating a community's FIRMs can take three to five years or more. Participating communities must adopt a flood map and enact minimum floodplain standards to regulate development in the SFHA. FEMA encourages communities to enhance their floodplain standards by offering reduced premium rates through the Community Rating System (CRS). FEMA also manages a Flood Mitigation Assistance (FMA) grant program using NFIP revenues to further reduce comprehensive flood risk.

NFIP insurance uses one of three types of Standard Flood Insurance Policies (SFIPs). SFIPs have maximum coverage limits set by law. Any federal entity that makes, guarantees, or purchases mortgages must, by law, require property owners in the SFHA to purchase flood insurance, generally through the NFIP. In moderate risk areas, community members may purchase Preferred Risk Policies (PRPs) that offer less costly insurance. The day-to-day sale, servicing, and claims processing of NFIP policies are conducted by private industry partners. Most policies are serviced by companies that are reimbursed through the Write Your Own (WYO) Program.

The premium rate for most NFIP policies is intended to reflect the true flood risk. However, Congress has directed FEMA to subsidize flood insurance for properties built before the community's first FIRM (i.e., the pre-FIRM subsidy). In addition, FEMA "grandfathers" properties at their rate from past FIRMs to updated FIRMs through a cross-subsidy. Congress also directed the development of an Affordability Study, and a forthcoming Draft Affordability Framework, to evaluate methods for making flood insurance more affordable.

Participating communities that fail to adopt FIRMs or maintain minimum floodplain standards can be put on probation or suspended from the NFIP. In communities that do not participate in the NFIP, or have been suspended, individuals cannot purchase NFIP insurance. Individuals in these communities also face challenges receiving federal disaster assistance in flood hazard areas, and have difficulties receiving federally backed mortgages.

Congress has provided appropriations to the NFIP for some of the cost of Risk MAP. Congress also authorizes the use of premium revenues for other NFIP costs, including administration, salaries, and other expenses. NFIP premiums also include other charges, such as a Federal Policy Fee, a Reserve Fund assessment, and a surcharge to help fund the NFIP. In October 2017, Congress cancelled \$16 billion of NFIP debt, making it possible for the program to pay claims for Hurricanes Harvey, Irma, and Maria. The NFIP currently owes \$20.525 billion to the U.S. Treasury, leaving \$9.9 billion in borrowing authority from a \$30.425 billion limit in law. This debt is serviced by the NFIP and interest is paid through premium revenues.

After May 31, 2019, key authorities of the NFIP, such as the authority to issue new insurance contracts, will expire if they are not reauthorized by Congress.

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Introduction

The National Flood Insurance Program (NFIP) was created by the National Flood Insurance Act of 1968 (NFIA, Title XIII of P.L. 90-448, as amended, 42 U.S.C. §4001 et seq.). The NFIP received a short-term reauthorization through December 8, 2017,¹ a second short-term reauthorization through December 22, 2017,² and a third short-term reauthorization through January 19, 2018.³ The NFIP lapsed between January 20 and January 22, 2018, and received a fourth short-term reauthorization until February 8, 2018.⁴ The NFIP lapsed for approximately eight hours during a brief government shutdown in the early morning of February 9, 2018, and was then reauthorized until March 23, 2018.⁵ The NFIP received a sixth reauthorization until July 31, 2018,⁶ a seventh reauthorization until November 30, 2018,⁷ an eighth reauthorization until December 7, 2018,⁸ a ninth reauthorization until December 21, 2018,⁹ and a tenth reauthorization until May 31, 2019.¹⁰

Prior to that, the NFIP was reauthorized by the Biggert-Waters Flood Insurance Reform Act of 2012 (Title II of P.L. 112-141, hereinafter BW-12) from July 6, 2012, to September 30, 2017. Congress amended elements of BW-12, but did not extend the NFIP's authorization further, in the Homeowner Flood Insurance Affordability Act of 2014 (P.L. 113-89, hereinafter HFIAA). The NFIP is managed by the Federal Emergency Management Agency (FEMA), through its subcomponent the Federal Insurance and Mitigation Administration (FIMA). As of October 2018, the NFIP had more than 5.1 million flood insurance policies providing over \$1.3 trillion in coverage. The program collects about \$3.6 billion in annual premium revenue.¹¹ Nationally, as of January 2019, about 22,355 communities in 56 states and jurisdictions participated in the NFIP.¹² According to FEMA, the program saves the nation an estimated \$1.87 billion annually in flood losses avoided because of the NFIP's building and floodplain management regulations.¹³

This report provides introductory information on key components of the NFIP, ranging from floodplain mapping to the standard flood insurance forms. This report will be updated as significant revisions are made to the NFIP through legislation or administrative action. However, this report does not provide detail on current or future legislative issues for Congress, which are

⁷ P.L. 115-225.

13 Ibid.

¹ P.L. 115-56, Division D, §130.

² P.L. 115-90.

³ P.L. 115-96.

⁴ P.L. 115-120.

⁵ P.L. 115-123.

⁶ P.L. 115-141, Division M, Title III.

⁸ P.L. 115-281.

⁹ P.L. 115-298.

¹⁰ P.L. 115-396.

¹¹ Statistics on the NFIP policy and claims are available from FEMA's website at https://www.fema.gov/policy-claim-statistics-flood-insurance.

¹² Based on FEMA's map inventory, 98.8% of the U.S. population is mapped with an existing flood map. Over 88% of the population lives in a community that has received a modernized product. Email correspondence from FEMA Congressional Affairs staff, April 20, 2017. Detailed information about which communities participate and where is available from the Community Status Book, found on FEMA's website at https://www.fema.gov/national-flood-insurance-program-community-status-book.

covered in a separate report.¹⁴ CRS also has a separate report on flood insurance and other federal disaster assistance programs.¹⁵

Purpose of the NFIP

In the original NFIP statute, Congress stipulated that "a program of flood insurance can promote the public interest by providing appropriate protection against the perils of flood losses and encouraging sound land use by minimizing exposure of property to flood losses."¹⁶ Congress had found that postdisaster flood losses, and the subsequent federal disaster relief assistance to help communities recover from those flood losses, had "placed an increasing burden on the Nation's resources" and that as a matter of national policy "a reasonable method of sharing the risk of flood losses is through a program of flood insurance which can complement and encourage preventive and protective measures."¹⁷ At the time of establishment of the NFIP, as is generally still the case today, it was found that "many factors have made it uneconomic for the private insurance industry alone to make flood insurance available to those in need of such protection on reasonable terms and conditions."¹⁸

Thus, the NFIP essentially has two interrelated policy purposes that can be summarized as

- 1. to provide access to primary flood insurance, thereby allowing for the transfer of some of the financial risk of property owners to the federal government, and
- 2. to mitigate and reduce the nation's *comprehensive* flood risk¹⁹ through the development and implementation of floodplain management standards.

A core design feature of the NFIP is that communities²⁰ are not required to participate in the program by any law or other regulation. Rather, communities in the United States voluntarily participate in the NFIP generally as a means of securing access to the primary flood insurance offered by the NFIP. Essentially, the NFIP is structured so that the availability of primary flood insurance through the NFIP (purpose #1 from above) is tied to the adoption and enforcement of floodplain management standards by participating communities (purpose #2). FEMA is only allowed to provide flood insurance to "those States or areas (or subdivisions thereof)" where "adequate land use and control measures" have been adopted that "are consistent with the

²⁰ 44 C.F.R. 59.1 defines community as

¹⁴ For more information on current legislation and issues for Congress, see CRS Report R45099, *National Flood Insurance Program: Selected Issues and Legislation in the 115th Congress*, by Diane P. Horn.

¹⁵ CRS Report R44808, Federal Disaster Assistance: The National Flood Insurance Program and Other Federal

Disaster Assistance Programs Available to Individuals and Households After a Flood, by Diane P. Horn, Federal Disaster Assistance: The National Flood Insurance Program and Other Federal Disaster Assistance Programs Available to Individuals and Households After a Flood, by Diane P. Horn.

¹⁶ See 82 Stat. 573 for text in original statute (Section 1302(c) of P.L. 90-448). This language remains in statute (see 42 U.S.C. §4001(c)).

¹⁷ See 82 Stat. 573 for text in original statute (Section 1302(a) of P.L. 90-448). This language remains in statute (see 42 U.S.C. §4001(a)).

¹⁸ See 82 Stat. 573 for text in original statute (Section 1302(b)(1) of P.L. 90-448). This language remains in statute (see 42 U.S.C. §4001(b)(1)).

¹⁹ In the context of this report, *comprehensive* flood risk means that the risk includes both financial risk (i.e., physical damage to property), but also the risk to human life.

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 flood plain management regulations for the areas within its jurisdiction.

comprehensive criteria for land management and use developed" by the NFIP.²¹ Thus, communities that participate in the NFIP, and therefore whose residents may access the NFIP's primary flood insurance, also adopt through local or state laws minimum floodplain management standards that are described in FEMA regulations.

Reduction of Comprehensive Flood Risk

The NFIP accomplishes the goal of reducing comprehensive flood risk primarily by requiring participating communities to

- Collaborate with FEMA to develop and adopt flood maps called Flood Insurance Rate Maps (FIRMs).
- Enact minimum floodplain standards based on those flood maps.

In addition, premiums collected from the sale of insurance in the NFIP finance a Flood Mitigation Assistance (FMA) grant program that reduces overall flood risk. This section of the report briefly discusses each of these means of reducing comprehensive flood risk.

Risk Mapping, Assessment, and Planning (Risk MAP) and Flood Insurance Rate Maps (FIRMs)

FEMA is responsible for undertaking Flood Insurance Studies (FISs) nationwide to identify areas within the United States having special flood, mudslide, and flood-related erosion hazards; assess the flood risk; and designate insurance zones.²² FEMA develops, in coordination with participating communities, flood maps called Flood Insurance Rate Maps (FIRMs) using these FISs that depict the community's flood risk and floodplain. In BW-12, Congress revised the authorities of FEMA as it relates to flood hazard mapping to formally establish what FEMA has called the Risk Mapping, Assessment and Planning (Risk MAP) process.²³ Though formally authorized in BW-12, FEMA started the Risk MAP process at the request of Congress in 2009.²⁴ While FEMA is largely responsible for the creation of the FIRM, the community itself must pass the map into its local or state law in order for the map to be effective.

Flood Zones

An area of specific focus on the FIRM is the Special Flood Hazard Area (SFHA). The SFHA is intended to distinguish the flood risk zones that have a chance of flooding during a "1 in 100 year flood" or greater frequency. This means that properties have a risk of 1% *or greater* risk of flooding every year if in the SFHA. **Table 1** shows flood-risk zones that are depicted on the FIRMs. Zones A (A1-30), AE, AH, AO, V, VE, VO, and V1-30 constitute the designated SFHA on the community's FIRM. V zones are distinguished from A zones in that V zones are subject to tidal wave action (i.e., coastal flooding). Two other designations for classifying zones in the SFHA are the Zone AR, which is an area where a levee or similar structure is determined not to

²¹ 42 U.S.C §4012(c)(2).

²² See 42 U.S.C. §4101 and 44 C.F.R. Part 65.

²³ §100216 of P.L. 112-141, 126 Stat. 927, as codified at 42 U.S.C. §4101b.

²⁴ Congress called for the creation of new a five year National Flood Map Maintenance Plan for FY2010-FY2014 in the Explanatory Statement which accompanied the Department of Homeland Security Appropriations Act, 2009 (P.L. 110-329). For the initial Risk MAP plan, see FEMA, *Risk Mapping, Assessment, and Planning (Risk MAP) Multi-Year Plan: Fiscal Years 2010-2014*, March 16, 2009, at http://www.fema.gov/media-library-data/20130726-1650-20490-4732/fema_risk_map_plan.pdf.

provide sufficient flood protection, but is undergoing restoration; and the Zone A99, an area where a federal flood protection structure is under construction to provide the necessary flood protection standard.

Zone Symbol	Description
А	Area of special flood hazard without water surface elevations determined.
AI-30, AE	Area of special flood hazard with water surface elevations determined.
AO	Area of special flood hazards having shallow water depths and/or unpredictable flow paths between 1 and 3 ft.
A99	Area of special flood hazard where enough progress has been made on a protective system, such as dikes, dams, and levees, to consider it complete for insurance rating purposes.
AH	Areas of special flood hazards having shallow water depths and/or unpredictable flow paths between I and 3 feet, and with water surface elevations determined.
AR	Area of special flood hazard that results from the decertification of a previously accredited flood protection system that is determined to be in the process of being restored to provide base flood protection.
V	Area of special flood hazards without water surface elevations determined, and with velocity, that is inundated by tidal floods (coastal high hazard area).
VI-30, VE	Area of special flood hazards, with water surface elevations determined and with velocity, that is inundated by tidal floods (coastal high hazard area).
VO	Area of special flood hazards having shallow water depths and/or unpredictable flow paths between I and 3 ft. and with velocity.
В, Х	Areas of moderate flood hazards or areas of future-conditions flood hazard.
C, X	Area of minimal hazards.
D	Area of undetermined, but possible, flood hazards.
М	Area of special mudslide (i.e., mudflow) hazards.
N	Area of moderate mudslide (i.e., mudflow) hazards.
Р	Area of undetermined, but possible, mudslide hazards.
E	Area of special flood-related erosion hazards.

Table 1. Flood Zones as Depicted on Flood Insurance Rate Maps (FIRMs)

Source: Adapted from 44 C.F.R. §60.3 by CRS.

Updating Flood Maps

Flood maps adopted across the country vary considerably in age and in quality. While some FIRMs may have last been developed and adopted by a community in the 1980s, especially in rural areas of the country, most communities will have maps adopted within the past 15 to 20 years.²⁵ All official FIRMs can be accessed, and are searchable by address and location, on a

²⁵ By law, FEMA is required to "assess the need to revise and update all floodplain areas and flood risk zones" every five years, but not necessarily update the maps. See 42 U.S.C. §4101(e).

FEMA website called the Map Service Center,²⁶ and modern FIRMs can be digitally viewed via the Geographic Information System in the National Flood Hazard Layer.²⁷

There is no consistent, definitive timetable for when a particular community will have their maps revised and updated. FEMA uses a process called the Coordinated Needs Management Strategy to prioritize, identify, and track the lifecycle of mapping needs of Risk MAP.²⁸ Generally, flood maps may require updating when there have been significant new building developments in or near the flood zone, changes to flood protection systems (e.g., levees and sand dunes), and environmental changes in the community. Because of the variability in how and when a FIRM is updated, for example, one community may be undergoing the process of updating its map while a neighboring community is not, and one community may have had its map last updated in 2016 while a neighboring community had its last revised in 2005, etc.

There are statutory guidelines for how FEMA is allowed to develop new FIRMs for a community. These guidelines require, for example, FEMA to conduct extensive communication and outreach efforts with the community during the mapping process and include various minimum waiting periods after intermediary steps are taken in the process.²⁹ In addition, during this process, communities are asked to submit pertinent data concerning their flood hazards, flooding experience, mitigation plans to avoid potential flood hazards, and estimates of historical and prospective economic impacts flooding has had on the community.³⁰ Generally, FEMA seeks to make the Risk Map a collaborative process with local communities to encourage a joint sense of "ownership" of the maps. There are also legal requirements allowing communities and individuals to appeal during the process of updating FIRMs.³¹ This appeal process now includes the option, first authorized in BW-12, for communities to appeal to a Scientific Resolution Panel regarding a proposed FIRM.³²

In BW-12, Congress reestablished and reauthorized a council called the Technical Mapping Advisory Council (TMAC).³³ The TMAC is broadly authorized to review and recommend improvements to how FEMA produces and disseminates flood hazard, flood risk, and flood map information.³⁴ In particular, the TMAC is authorized to recommend to FEMA "mapping standards and guidelines for—(A) flood insurance rate maps [FIRMs]; and (B) data accuracy, data quality, data currency, and data eligibility."³⁵ Currently, TMAC estimates that the production of a new or

²⁶ See the Map Service Center website at https://msc.fema.gov/portal. In addition, one can review the last revision date of a community's FIRM in the Community Status Book found at https://www.fema.gov/national-flood-insurance-program-community-status-book.

²⁷ For more on the NFHL, and directions for accessing it, see FEMA's website at https://www.fema.gov/national-flood-hazard-layer-nfhl.

²⁸ For more, see FEMA, *Coordinated Needs Management Strategy Fact Sheet*, April 2015, at https://www.fema.gov/media-library/assets/documents/21436.

²⁹ See, for example, 42 U.S.C. §4101b(d)(1) and 42 U.S.C. §4104.

³⁰ See, for example, 44 C.F.R. §66.1.

³¹ Primarily, see 42 U.S.C. §4104(c)-(g).

³² §100218(a) of P.L. 112-141, 126 Stat. 930, as codified at 42 U.S.C. §4104-1. For more on the Scientific Resolution Panel, see the Panel's website at http://www.floodsrp.org/.

³³ Section 100215, Title II of P.L. 112-141, 126 Stat. 924, as codified at 42 U.S.C. §4101a. Congress originally authorized the creation of the TMAC in 1994 (see Section 576 of P.L. 103-325, 108 Stat. 2280). However, in that originating statute, the TMAC was required to terminate "5 years after the date on which all members of the Council have been appointed." BW-12 did not include a termination clause for TMAC, thus making it permanent. BW-12 describes the conditions for membership, pay, and other matters relating to the operations and structure of the TMAC.

³⁴ For a list of duties, see 42 U.S.C. §4101a(c).

^{35 42} U.S.C. §4101a(c)(2).

revised FIRM is designed to take three to five years under the Risk MAP program, but can often take as long as six and a half years or longer.³⁶ The TMAC has suggested that the ideal Risk MAP project timeline is 25 months.³⁷

Map Corrections

After a map is finalized and adopted by a community, it can still be revised to correct for errors in map accuracy. To correct these inaccuracies, FEMA allows individuals and communities to request letters amending or revising the flood map. In general, there are two primary circumstances that may result in changes to the flood map. First, the natural elevation of property may be incorrectly accounted for on a FIRM, and that natural elevation is such that the property should not be considered as part of the SFHA. Generally, in this circumstance, an individual or community may request a Letter of Map Amendment (LOMA).³⁸ Second, a community may feel that a physical development in the community has resulted in a reduction of the flood risk for areas previously mapped in the floodplain. Generally, in this circumstance, the community may request a Letter of Map Revision (LOMR).³⁹ In either a LOMA or LOMR, the decision to correct a map must be based on scientific information validating the inaccuracy of the current map. In most circumstances, the cost of requesting the map correction is borne by the community or individual.⁴⁰

State and Local Land Use Controls

As authorized in law, FEMA has developed a set of minimum floodplain management standards that are intended to

(1) constrict the development of land which is exposed to flood damage where appropriate,
 (2) guide the development of proposed construction away from locations which are threatened by flood hazards,
 (3) assist in reducing damage caused by floods, and
 (4) otherwise improve the long-range land management and use of flood-prone areas.⁴¹

Communities are required to adopt these minimum floodplain management standards in order to participate in the NFIP.⁴² FEMA has set forth the minimum standards it requires for participation in the NFIP in federal regulations.⁴³ Though the standards appear in federal regulations, the standards only have the force of law because they are adopted and enforced by a state or local government. Key conditions of the NFIP minimum standards include, among many other conditions, that communities

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³⁶ For further details on the remapping process, see Section 4.4.2 in Technical Mapping Advisory Council, *Annual Report, 2015*, December 2015, pp. 4-55, and the section on Process, in Technical Mapping Advisory Council, *National Flood Mapping Program Review*, June 2016, pp. 13-17, both at http://www.fema.gov/media-library/assets/documents/ 111853.

³⁷ Ibid. See Figure 4-10.

³⁸ For more on LOMAs, see 44 C.F.R. Part 70, or FEMA's website at http://www.fema.gov/letter-map-amendment-loma.

³⁹ For more on LOMRs, see 44 C.F.R. Part 72, or FEMA's website at http://www.fema.gov/letter-map-revision.

⁴⁰ For detailed information on the process of revising and amending NFIP maps, please see FEMA, *Appeals, Revisions, and Amendments to National Flood Insurance Program Maps: A Guide for Community Officials*, December 2009, at https://www.fema.gov/media-library/assets/documents/17930.

⁴¹ 42 U.S.C. §4102(c).

⁴² 42 U.S.C. §4022(a)(1).

⁴³ See 44 C.F.R. Part 60, particularly 44 C.F.R. 60.3.

- require permits for development in the SFHA;
- require elevation of the lowest floor of all new residential buildings in the SFHA to or above the Base Flood Elevation (BFE);
- restrict development in the regulatory floodway to prevent increasing the risk of flooding; and
- require certain construction materials and methods that minimize future flood damage.⁴⁴

Legal enforcement of the floodplain management standards is the responsibility of the participating NFIP community. However, FEMA, often in cooperation with state governments, will conduct community assistance visits (CAVs) to monitor how and if a community is adequately enforcing its floodplain ordinances.⁴⁵ Two previous reviews commissioned by FEMA on community enforcement of minimum floodplain standards have estimated that the nationwide rate of community compliance with the standards is 70% to 85%,⁴⁶ and that between 58% and 70% of buildings are built in full compliance with the standards.⁴⁷ A community that has been found failing to enforce the floodplain management standards may be placed on probation and ultimately suspended from the NFIP (as discussed later in this report).⁴⁸ As these standards are just *minimum* requirements, states and communities can elect to adopt higher standards as a means of mitigating flood risk. In addition, FEMA operates a program, called the Community

13_Higher_Standards_in_Floodplain_Management2.pdf.

⁴⁵ For more information on CAVs, see FEMA, *Guidance for Conducting Community Assistance Contacts and Community Assistance Visits*, F-776, April 2011, at https://www.fema.gov/media-library-data/20130726-1812-25045-9789/fema_f776_cacs_cavs_web_final_apr2011.pdf.

⁴⁶ A community was estimated to be compliant with the floodplain management standards if it

had no program deficiencies or violations or if it addressed them satisfactorily within two years [following a community assistance visit]. As another way of gauging overall community compliance, FEMA and state personnel were asked in interviews to give estimates of the proportion of compliant communities in their 'territories.' Their responses ranged from 0 percent compliant for some areas to 100 percent for others, but averaged to 78 percent compliant, the median of the range calculated from existing records.

See Jacquelyn L. Monday, Kristen Y. Grill, and Paul Esformes, et al., *An Evaluation of Compliance with the National Flood Insurance Program Part A: Achieving Community Compliance*, American Institutes of Research, Prepared as part of the 2001-2006 Evaluation of the National Flood Insurance Program, November 2006, p. x, at https://www.fema.gov/media-library-data/20130726-1602-20490-1461/nfip_eval_community_compliance_a.pdf.

⁴⁷ Margaret L. Mathis and Suzanne Nicholson, *An Evaluation of Compliance with the National Flood Insurance Program Part B: Are Minimum Building Requirements Being Met?*, Dewberry, Prepared as part of the 2001-2006 Evaluation of the National Flood Insurance Program, October 2006, p. viii, at https://www.fema.gov/media-librarydata/20130726-1602-20490-2430/nfip_eval_community_compliance_b.pdf.

⁴⁴ For more on the NFIP minimum floodplain standards, see, for example

FEMA, NFIP Floodplain Management Requirements: A Study Guide and Desk Reference, at https://www.fema.gov/floodplain-management-requirements.

Christopher P. Jones, William L. Coulbourne, and Jamie Marshall, et al., Evaluation of the National Flood Insurance Program's Building Standards: Prepared as part of the 2001-2006 Evaluation of the National Flood Insurance Program, American Institutes of Research, October 2006, at https://www.fema.gov/media-library-data/20130726-1602-20490-5110/nfip_eval_building_standards.pdf.

Association of State Floodplain Managers, A Guide for Higher Standards in Floodplain Management, March 2013, at https://www.floods.org/ace-files/documentlibrary/committees/3-

⁴⁸ See the "Nonparticipating Communities and Community Suspension" section of this report.

Rating System, to incentivize NFIP communities to adopt more rigorous floodplain management standards (as discussed later in this report).⁴⁹

Flood Mitigation Assistance Grants

To reduce comprehensive flood risk, FEMA also operates a Flood Mitigation Assistance (FMA) Grant Program that is funded through revenue collected by the NFIP.⁵⁰ The FMA Program⁵¹ awards grants for a number of purposes, including state and local mitigation planning; the elevation, relocation, demolition, or flood proofing of structures; the acquisition of properties; and other activities.⁵² In FY2014, the FMA Program was authorized to use \$100 million of NFIP revenue. In FY2015 it was authorized to use \$150 million; in FY2016, \$175 million; in FY2017, \$175.1 million; and in FY2018, \$160 million.⁵³ The funding is available until it is expended, so in certain years the amount awarded may exceed the amount authorized by Congress in an appropriation act for a specific fiscal year.⁵⁴ A database of approved FMA grants that is available from FEMA indicates that over \$905 million in projects was approved between July 1997 and November 2017.⁵⁵

Primary Flood Insurance through the NFIP

Standard Flood Insurance Policies (SFIPs)

FEMA has considerable discretion under the law to craft the details of the flood insurance policies it sells through the NFIP.⁵⁶ Currently, there are three policies that the NFIP uses to sell primary flood insurance—the Dwelling, the General Property, and the Residential Condominium Building Association policy forms. Collectively, these Standard Flood Insurance Policies (SFIPs) appear in regulations, and coverage qualifications are generally equivalent.⁵⁷ **Table 2** displays the maximum available coverage limits for SFIPs by occupancy type. These coverage amounts are set by law.⁵⁸ Policyholders are able to elect coverage for both their building property and separate coverage for contents. Renters may obtain contents-only coverage.

⁴⁹ See the "Community Rating System" section of this report.

^{50 42} U.S.C. §4104c.

⁵¹ In BW-12, Congress mandated that the grant assistance previously delivered by the Repetitive Flood Claims (RFC) and the Severe Repetitive Loss (SLR) grant programs should be unified into a single program, FMA, by rescinding the authorization for the SLR program and the RFC program. See Sections 100225(b)-(c) of P.L. 112-141, respectively.

⁵² For additional information on the FMA Program, see 44 C.F.R. Part 78, FEMA's website at https://www.fema.gov/flood-mitigation-assistance-grant-program, and FEMA, *FY 2018 Flood Mitigation Assistance (FMA) Grant Program Fact Sheet*, August 14, 2018, at https://www.fema.gov/media-library/assets/documents/168194.

⁵³ See, respectively, P.L. 113-76, 128 Stat. 265; P.L. 114-4, 129 Stat. 58; P.L. 114-113, 129 Stat. 2508, P.L. 115-31, 131 Stat. 417, and P.L. 115-141.

⁵⁴ For additional information on how the FMA program is financed, see the "Appropriations and Offsetting Receipts" section of this report.

⁵⁵ This figure represents the total amount of federal assistance, without subtracting the cost share, for the three flood mitigation programs that existed during this time: SRL, RFC, and FMA. To access the database, see FEMA's website at https://www.fema.gov/media-library/assets/documents/103339.

^{56 42} U.S.C. §4013(a).

 ⁵⁷ See 44 C.F.R. Part 61, Appendix A. Copies of the policy forms are also available on FEMA's website at https://www.fema.gov/national-flood-insurance-program/standard-flood-insurance-policy-forms.
 ⁵⁸ 42 U.S.C. §4013(b).

Policy Coverage Type	Occupancy Type			
	I-4 Family	Other Residential	Nonresidential Business, other Nonresidential	
Combined Building/Contents	\$250,000/\$100,000	\$500,000/\$100,000	\$500,000/\$500,000	
Contents Only	\$100,000	\$100,000	\$500,000	

Table 2. Maximum Available Coverage Limits for SFIPs by Occupancy Type

Source: FEMA, Flood Insurance Manual, 3. How to Write, revised October 2018, p. 3-32, at https://www.fema.gov/media-library/assets/documents/171681.

Because SFIP coverage limits are often less than the value of a structure or the value of the property's contents, policyholders can obtain excess flood insurance to cover losses beyond the coverage limit. However, such excess coverage is not sold by the NFIP, and can only be purchased through the private insurance market.

Within the SFIPs sold by the NFIP, there are numerous policy exclusions that are often not understood by policyholders. For example, SFIPs do *not* provide coverage for alternative living expenses (e.g., the cost of staying in a hotel while a house is being repaired) or business interruption expenses, and SFIPs have limited coverage of basements or crawlspaces.⁵⁹ In addition, the SFIP does not cover damage caused by earth movement, including landslides.⁶⁰

Mandatory Mortgage Purchase Requirement

In a community that participates or has participated in the NFIP, owners of properties in the mapped SFHA⁶¹ are required to purchase flood insurance as a condition of receiving a federally backed mortgage. By law and regulation, federal agencies, federally regulated lending institutions, and government-sponsored enterprises must require these property owners to purchase flood insurance as a condition of any mortgage that these entities make, guarantee, or purchase.⁶² Examples of the types of lenders that are mandated to issue regulations requiring the purchase of flood insurance related to mortgages include

- federal agency lenders, such as the Department of Veterans Affairs, or
- the government-sponsored enterprises (GSEs), Federal National Mortgage Association (Fannie Mae) and Federal Home Loan Mortgage Corporation (Freddie Mac), or

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⁵⁹ For a basic guide to coverage under the SFIP, see FEMA, *Summary of Coverage*, FEMA F-679, November 2012, at http://www.fema.gov/media-library-data/20130726-1620-20490-4648/f_679_summaryofcoverage_11_2012.pdf.

⁶⁰ The exclusion for earth movement was particularly contentious in the aftermath of Hurricane Sandy. For a basic discussion, see Lloyd Dixon, Noreen Clancy, and Bruce Bender, et al., *Flood Insurance in New York City Following Hurricane Sandy*, RAND Corporation, October 2013, at http://www.rand.org/pubs/research_reports/RR328.html.

⁶¹ For additional information on the SFHA, see the "Risk Mapping, Assessment, and Planning (Risk MAP) and Flood Insurance Rate Maps (FIRMs)" section of this report.

^{62 42} U.S.C. §4012a.

• federally regulated lending institutions, such as banks covered by the Federal Deposit Insurance Corporation (FDIC) or the Office of the Comptroller of the Currency (OCC).⁶³

Property owners falling under this mandate may purchase flood insurance through the NFIP, or through a private company, so long as the private flood insurance "provides flood insurance coverage which is at least as broad as the coverage" of the NFIP, among other conditions.⁶⁴

Not all mortgages in the SFHA are affected by this mandatory purchase requirement. For example, a personal mortgage loan between two private parties (such as between family members), or a mortgage issued by a private mortgage company that is *not* then sold on the secondary market to a bank or entity like Fannie Mae, *may* not require flood insurance. Even if they are not technically required to mandate flood insurance by federal law, the issuing party may still require it as a means of financially securing the property. While the exact percentage of total mortgages requiring flood insurance is unknown, one study suggested at least 77% of all mortgages in SFHAs in 2003 would be subject to the requirement.⁶⁵

Despite the mandatory purchase requirement, not all covered mortgages carry the insurance as dictated. Though there are no official statistics available from the federal mortgage regulators responsible for implementation of the mandate, a 2006 study commissioned by FEMA found that compliance with this mandatory purchase requirement may be as low as 43% in some areas of the country (the Midwest), and as high as 88% in others (the West).⁶⁶ In a 2013 analysis done following Hurricane Sandy, one study found that approximately 65% of properties in New York City required to have insurance through their mortgage had such insurance.⁶⁷ A 2017 study of flood insurance in New York City by the same authors reassessed the 2013 data and suggested that the estimate in their earlier study may have slightly overstated the actual take-up rate, which the 2017 study estimated at 61%. The later study found that compliance with the mandatory purchase requirement by properties in the SFHA with mortgages increased from 61% in 2012 to 73% in 2016. The later study also argued that findings for properties without mortgages indicate the effectiveness of the mandatory purchase requirement, as the 37% take-up rate for properties without mortgages in the SFHA was similar to take-up rates outside the SFHA (37% for properties with mortgages and 32% for properties without mortgages).⁶⁸

nfip_eval_mandatory_purchase_requirement.pdf.

⁶³ 42 U.S.C §4012a(b)(1)-(3). For examples of regulations and policies implementing this provision, see 12 C.F.R. Parts 12 and 339 for regulations for the OCC and FDIC, respectively, or Federal National Mortgage Association (Fannie Mae), *Servicing Guide, Part B-3: Flood Insurance Requirements*, 2015, available at https://www.fanniemae.com/content/guide/servicing/b/index.html.

⁶⁴ 42 U.S.C §4012a(b). For additional information on private flood insurance, see CRS Insight IN10450, *Private Flood Insurance and the National Flood Insurance Program (NFIP)*, by Baird Webel and Diane P. Horn.

⁶⁵ The 77% figure was estimated using the overall percentage of mortgages held by parties subject to the mortgage requirement, and likely is subject to a degree of error. See Richard J. Tobin and Corinne Calfee, *The National Flood Insurance Program's Mandatory Purchase Requirement: Policies, Process, and Stakeholders*, American Institutes for Research, Prepared as part of the Evaluation of the National Flood Insurance Program, March 2005, p. 31, available at http://www.fema.gov/media-library-data/20130726-1602-20490-9257/

⁶⁶ Lloyd Dixon, Noreen Clancy, and Seth A. Seabury, et al., *The National Flood Insurance Program's Market Penetration Rate: Estimates and Policy Implications*, RAND Corporation, Prepared as part of the Evaluation of the National Flood Insurance Program, February 2006, p. 23, available at https://www.fema.gov/media-library-data/20130726-1602-20490-2804/nfip_eval_market_penetration_rate.pdf.

⁶⁷ Lloyd Dixon, Noreen Clancy, Bruce Bender, et al., *Flood Insurance in New York City Following Hurricane Sandy*, RAND Corporation, 2013, p. 15, available at http://www.rand.org/pubs/research_reports/RR328.html.

⁶⁸ Lloyd Dixon, Noreen Clancy, and Benjamin M. Miller, et al., The Cost and Affordability of Flood Insurance in New

The escrowing of insurance premiums may increase compliance with the mandatory purchase requirement. Federal mortgage regulators have required the escrowing of flood insurance premiums on certain mortgages in compliance with regulations issued after changes to the law made in 1994.⁶⁹ Expanding upon existing requirements, Section 100209 of BW-12,⁷⁰ as subsequently revised by Section 25 of HFIAA,⁷¹ has required that regulated lenders start escrowing flood insurance for all mortgages, except if the lending institution is under a regulated size or the loan is a subordinate to another loan. This broader implementation of the escrowing provision began in January 2016, per law and regulations.⁷²

Preferred Risk Policies (PRPs)

Flood insurance is optional for properties outside the SFHA regardless of whether they have a federally backed mortgage. However, as there is still a risk of flooding outside the SFHA, members of NFIP participating communities with property located in the B, C, or X Zones of a FIRM may voluntarily purchase a lower-cost Preferred Risk Policy. Unlike with properties in the SFHA, an individual may be denied a PRP if there is significant loss history for the property.⁷³ FEMA encourages the purchase of PRPs both to reduce the financial flood risk of a broader group of individuals, and to expand the policy base of the NFIP writ large, thus improving the fiscal soundness of the NFIP portfolio. A PRP uses the same basic policy forms as properties within the SFHA, but receives discounted rates in accordance with its lower risk profile.

Increased Cost of Compliance (ICC) Coverage

The NFIP requires most SFIP and PRP policyholders⁷⁴ to purchase what is in effect a separate insurance policy to offset the expense of complying with more rigorous building code standards when local ordinances require them to do so. This increased cost of compliance coverage is authorized in law, and rates for the coverage, as well as how much can be paid out for claims, are set by FEMA.⁷⁵ Congress has capped the amount that can be paid for ICC coverage at \$75.⁷⁶ The

76 Ibid.

York City: Economic Impacts of Rising Premiums and Policy Options for One- to Four-Family Homes, RAND Corporation, March 2017, pp. 15-18, https://www.rand.org/pubs/research_reports/RR1776.html.

⁶⁹ Section 523 of P.L. 103-325, 108 Stat. 2258.

⁷⁰ Section 100209 of P.L. 112-141, 126 Stat. 920.

⁷¹ Section 25 of P.L. 113-89, 128 Stat. 1030.

⁷² See 42 U.S.C 4012a(d)(1), and the final rule of Office of the Comptroller of the Currency, Treasury; Board of Governors of the Federal Reserve System; Federal Deposit Insurance Corporation; Farm Credit Administration; National Credit Union Administration, "Loans in Areas Having Special Flood Hazards," 80 *Federal Register* 43216, July 21, 2015. For a full explanation of how escrowing had previously worked prior to BW-12, and for how it is being required following BW-12 and HFIAA, see the notice of proposed rulemaking from the federal agency regulators at Office of the Comptroller of the Currency, Treasury; Board of Governors of the Federal Reserve System; Federal Deposit Insurance Corporation; Farm Credit Administration; National Credit Union Administration, "Loans in Areas Having Special Flood Hazards," 79 *Federal Register* 64518, October 29, 2014.

⁷³ For additional information on PRPs and restrictions, see FEMA, *Flood Insurance Manual, 3. How to Write*, pp. 3-32 to 3-37, revised October 2018, at https://www.fema.gov/media-library-data/1541619486310-878aa52bac8ac0a6baabe8ac90c92719/3_how_to_write_508_oct2018.pdf.

⁷⁴ For example, ICC coverage is not required on condominium units and content-only policies.

⁷⁵ 42 U.S.C. §4011(b).

ICC policy has a separate rate premium structure, and provides an amount up to \$30,000 in payments for certain eligible expenses.⁷⁷

For example, when a building is determined by a community to be substantially damaged⁷⁸ following a flood, floodplain management standards adopted by local communities can require the building to be rebuilt to current floodplain management requirements, even if the property previously did not need to do so. For instance, the new compliance standard may require the demolition and elevation of the rebuilt building to above the BFE. An ICC claim may then be submitted by the policyholder to offset the cost of complying with the elevation standard. FEMA also makes ICC coverage available if a building has been declared a repetitive loss⁷⁹ by a community's floodplain management regulations.⁸⁰ However, not all participating NFIP communities have or enforce a "repetitive loss provision" that records, declares, and mandates improvements to properties that have experienced repetitive loss. ⁸¹

FEMA has not implemented ICC coverage for two conditions that they are authorized to do so by law. These two conditions are for properties that have sustained flood damage on multiple occasions, if the Administrator determines that it is cost-effective and in the best interests of the NFIP, and for properties for which an offer of mitigation assistance is made under various federal assistance programs.⁸² FEMA's decision not to implement these provisions has provoked criticism from some stakeholders of the NFIP.⁸³

Servicing of Policies and Claims Management

While FEMA provides the overarching management and oversight of the NFIP, the bulk of the day-to-day operation of the NFIP, including the marketing, sale, writing, and claims management of policies, is handled by private companies. This arrangement between the NFIP and private industry is authorized by statute and guided by regulation.⁸⁴ There are two different arrangements that FEMA has established with private industry. The first is the Direct Servicing Agent, or DSA, which operates as a private contractor on behalf of FEMA for individuals seeking to purchase

⁷⁹ 42 U.S.C. §4121(a)(7) defines repetitive loss structure as

⁷⁷ For example, for ICC premiums, see FEMA, *Flood Insurance Manual, Appendix J: Rate Tables*, p. J-19, revised October 2018, at https://www.fema.gov/media-library-data/1538670910296-81423feb161c06426ac157a409123f3d/ app-j_rate_tables_508_oct2018.pdf.

⁷⁸ 44 C.F.R §59.1 defines "substantial damage" as damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50% of the market value of the structure before the damage occurred.

a structure covered by a contract for flood insurance that—

⁽A) has incurred flood-related damage on 2 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; and

⁽B) at the time of the second incidence of flood-related damage, the contract for flood insurance contains increased cost of compliance coverage.

⁸⁰ 42 U.S.C §4011(b)(1).

⁸¹ For additional information on repetitive loss and repetitive loss provisions, see FEMA, *Increased Cost of Compliance (ICC) Coverage: Guidance for State and Local Officials*, September 1, 2003, at http://www.fema.gov/media-library/assets/documents/1973.

⁸² See 42 U.S.C §4011(b)(3) and (4).

⁸³ See, for example, Association of State Floodplain Managers (ASFPM), A Vision for Implementing ICC as it Exists in Law Today, February 29, 2016, at http://www.floods.org/ace-images/ICC_Feb2016.pdf.

⁸⁴ See primarily 42 U.S.C. §4081 and §4018, and 44 C.F.R. Part 62.

flood insurance policies directly from the NFIP.⁸⁵ The second arrangement is called the Write-Your-Own (WYO) Program, where private insurance companies are paid to directly write and service the policies themselves. With either the DSA or WYO Program, the NFIP retains the actual financial risk of paying claims for the policy (i.e., underwrites the policy), and the policy terms and premiums are the same.

Currently, approximately 12% of the total NFIP policy portfolio is managed through the DSA, and 88% of NFIP policies are sold by the 59 companies participating in the WYO Program.⁸⁶ Over the years, the balance between the number of policies serviced by the WYO Program or the DSA has evolved, with the WYOs covering approximately 50% of policies in 1986, and approximately 97% of policies in 2008.⁸⁷ Because most purchasers of the NFIP policies never interface directly with a FEMA representative, and only deal with a WYO company or the DSA, they may not be aware that they are actually purchasing insurance from FEMA.

Companies participating in the WYO Program are compensated through a variety of methods, as summarized in **Table 3**. Especially following Hurricane Katrina and Hurricane Sandy, the Government Accountability Office (GAO) and Department of Homeland Security, Office of the Inspector General (DHS IG) have investigated how much the WYOs were compensated for the services they provided in support of the NFIP.⁸⁸ In BW-12, Congress required FEMA to develop and issue a rulemaking on a "methodology for determining the appropriate amounts that property and casualty insurance companies participating in the Write Your Own program should be reimbursed for selling, writing, and servicing flood insurance policies and adjusting flood insurance claims on behalf of the National Flood Insurance Program."⁸⁹ This rulemaking was required within a year of enactment of BW-12. As of January 2019, FEMA has yet to publish a rulemaking to revise the compensation structure of the WYOs.

Compensation Type	Description
Operating and Administrative Expenses	Reimbursement of marketing, operating, and administrative expenses.
Commission Allowance	Allowance to meet commissions or salaries of insurance agents.
Growth Bonus	Increase in compensation dependent on the extent to which the Company meets the NFIP marketing goals.

Table 3. Types of Compensation for WYO Companies

⁸⁵ The current Direct Servicing Agent is a company called Torrent Technologies, Inc., who were awarded the contract in September 2016. See https://www.fbo.gov/index?s=opportunity&mode=form&id=

⁵⁸bec8ac15f6944abe778f4ae49a0841&tab=core&_cview=1. The website for Torrent Technologies, Inc. is at http://torrentcorp.com/.

⁸⁶ Email correspondence from FEMA Congressional Affairs staff, February 3, 2017. A list of companies participating in the WYO Program is available at https://www.fema.gov/wyo_company.

⁸⁷ For additional background on the estimates and history of the WYO Program, see, respectively, U.S. Government Accountability Office, *Private Companies' Participation in the Write Your Own Program*, RCED-87-108, May 29, 1987, at http://www.gao.gov/products/RCED-87-108, and U.S. Government Accountability Office, *Opportunities Exist to Improve Oversight of the WYO Program*, GAO-09-455, August 2009, at http://www.gao.gov/products/GAO-09-455.

⁸⁸ For example, see U.S. Government Accountability Office, *Opportunities Exist to Improve Oversight of the WYO Program*, GAO-09-455, August 2009, at http://www.gao.gov/products/GAO-09-455 and DHS Office of Inspector General, *FEMA Does Not Provide Adequate Oversight of Its National Flood Insurance Write Your Own Program*, OIG-16-47, March 8, 2016, at https://www.oig.dhs.gov/assets/Mgmt/2016/OIG-16-47-Mar16.pdf.

⁸⁹ Section 100224 of P.L. 112-141, 126 Stat. 936.

Compensation Type	Description
Allocated Loss Adjustment Expenses (ALAE)	Standard amount of compensation for each individual claim.
Unallocated Loss Adjustment Expenses (ULAE)	General overhead (indirect expenses) for settling losses.
Special Allocated Loss Adjustment Expenses (SALAE)	Direct expenses that are above what is covered by ALAE.

Source: Table 1 of DHS Office of Inspector General, *FEMA* Does Not Provide Adequate Oversight of Its National Flood Insurance Write Your Own Program, OIG-16-47, March 8, 2016, p. 3, at https://www.oig.dhs.gov/assets/Mgmt/2016/OIG-16-47-Mar16.pdf. This replicated table is based on the OIG's analysis of the subsidy arrangement.

Following Hurricane Sandy, there were concerns raised regarding the possible systematic underpayment of claims for flood losses through the NFIP.⁹⁰ As a result of these issues, FEMA carried out a process by which Hurricane Sandy survivors could resubmit their NFIP claims to be reevaluated by FEMA. FEMA reviewed the resubmitted claims and provided additional claim payments to those deemed warranted in the review, and concluded the Sandy Claims Review Process on March 1, 2018.⁹¹ As of January 29, 2018, approximately 85% of policyholders who requested a review had received additional payments, resulting in approximately \$258.6 million in additional claims payments. The remaining 15% of reviewed files received no additional payment.⁹² In addition, FEMA settled and litigated lawsuits initiated by claimants following Hurricane Sandy, with 1,631 of the 1,633 court cases settled, resulting in approximately \$164 million in settlement payments.⁹³

Pricing and Premium Rate Structure

Except for certain subsidies, flood insurance rates in the NFIP are directed to be "based on consideration of the risk involved and accepted actuarial principles,"⁹⁴ meaning that the rate is reflective to the true flood risk to the property. Essentially, FEMA uses several basic characteristics to classify properties based on flood risks. Structures are evaluated by their specific risk zone on a FIRM, the elevation of the structure relative to the Base Flood Elevation (BFE) in each risk zone,⁹⁵ and occupancy type (e.g., single family, other residential, nonresidential, and mobile/manufactured homes), along with other specific determinants of risk. In addition, the premium structure includes estimates for the expenses of the NFIP, including servicing of policies. A detailed discussion of the premium rate structure of the NFIP, and how or

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⁹⁰ For an analysis of the claims issues following Hurricane Sandy, see U.S. Congress, Senate Committee on Banking, Housing, and Urban Affairs, *Assessing and Improving Flood Insurance Management and Accountability in the Wake of Superstorm Sandy*, prepared by Majority Staff Report, 114th Cong., 1st sess., June 22, 2015, at https://www.banking.senate.gov/download/majority-staff-shelby-flood-insurance-report-2015.

⁹¹ For figures regarding the Sandy claims review and legal settlements, see the Fact Sheet reports published by FEMA's NFIP Transformation Task Force published at https://www.fema.gov/media-library/assets/documents/107695. Since August 2016 these fact sheets have been called the Sandy Claims Review Decision Fact Sheet.

⁹² Sandy Claims Review Division Update, February 1, 2018, at https://www.fema.gov/media-library-data/ 1518101164216-73461746bb31f62a38ff95a90962093f/

 $[\]label{eq:limbulk} Updated_Feb1_Final_Fact_Sheet_Sandy_Claims_Review_Division.pdf.$

⁹³ Ibid.

⁹⁴ 42 U.S.C. §4014(a)(1).

⁹⁵ The Base Flood Elevation (BFE) is the water-surface elevation of the base flood, which is the 1%-annual-chance flood, commonly called the 100-year flood. The probability is 1% that rising water will reach BFE height in any given year. The depth of the base flood is calculated by subtracting the ground elevation from the BFE.

why it is and is not actuarially sound, is beyond the scope of this report. However, additional resources exist to assist Congress with this issue.⁹⁶

Pre-FIRM Subsidy

While most premium rates in the NFIP are intended to represent the full flood risk of a given structure, Congress has directed FEMA *not* to charge actuarial rates for properties that were constructed or substantially improved before December 31, 1974, or before the date upon which FEMA has published the first Flood Insurance Rate Map for the community, whichever was later.⁹⁷ Therefore, by statute, premium rates charged on structures built before they were first mapped into a flood zone that have not been substantially improved, known as pre-FIRM structures, are allowed to have lower premiums than what would be expected to cover predicted claims. The availability of this pre-FIRM subsidy was intended to allow preexisting floodplain properties to contribute in some measure to prefunding their recovery from a flood disaster instead of relying solely on federal disaster assistance. In essence, the flood insurance could distribute some of the financial burden among those protected by flood insurance and the public.

As of September 2016, 817,344 policies received a pre-FIRM subsidy, representing approximately 16.1% of all NFIP policies.⁹⁸ Historically, the total number of pre-FIRM policies is relatively stable, but the percentage of those policies by comparison to the total policy base has decreased.⁹⁹ The pricing subsidy for pre-FIRM policies is progressively being phased out of the NFIP, as was initially required under Section 100205 of BW-12, as revised by Sections 3 and 5 of HFIAA.¹⁰⁰ Under current law, all premiums for pre-FIRM properties will eventually reach actuarially sound rates (i.e., the rate equivalent structures pay without the subsidy, reflecting true flood risk), but at a different pace of phaseout depending on the property type. **Table 4** provides an adaptation of a table from GAO regarding the multifaceted phaseout of the pre-FIRM subsidy for most primary residences, but retained the pace of the phaseout of the subsidy from BW-12 for business properties and secondary homes. In addition, HFIAA created a minimum and maximum increase in the amount for the phaseout of pre-FIRM subsidies for all primary residences of 5%-15% annually. Unless otherwise noted, the percentage increases are based on the current premium (e.g., a 15% annual increase from the prior year premium), rather

⁹⁶ See, for example

Several reports from GAO, including U.S. Government Accountability Office, *Continued Progress Needed to Fully Address Prior Recommendations on Rate-Setting Methods*, GAO-16-59, March 2016, at http://www.gao.gov/assets/680/675855.pdf.

Carolyn Kousky and Leonard Shabman, *Pricing Flood Insurance: How and Why the NFIP Differs from a Private Insurance Company*, Resources for the Future, RFF DP 14-37, October 2014, at http://www.rff.org/files/sharepoint/WorkImages/Download/RFF-DP-14-37.pdf.

National Academies of Sciences, *Affordability of National Flood Insurance Program Premiums: Part 1*, 2015, Chapter 3, National Flood Insurance Pricing, Policies, and Premiums, at http://www.nap.edu/catalog/21709/affordability-of-national-flood-insurance-program-premiums-report-1.

Congressional Budget Office, *The National Flood Insurance Program: Factors Affecting Actuarial Soundness*, November 2009, at https://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/106xx/doc10620/11-04-floodinsurance.pdf.

⁹⁷ 42 U.S.C. §4015(c).

⁹⁸ Email correspondence from FEMA Congressional Affairs staff, March 3, 2017.

⁹⁹ For an historical prospective on the percentages of subsidized policies in the NFIP, see Figure 1 of U.S. Government Accountability Office, *Flood Insurance: More Information Needed on Subsidized Properties*, GAO-13-607, July 2013, p. 7, at http://www.gao.gov/assets/660/655734.pdf.

¹⁰⁰ P.L. 112-141, 126 Stat. 917; and P.L. 113-89, 128 Stat. 1021-1022; respectively.

than the percentage difference between the current premium and the actuarial rate (i.e., a rate increase of 25% does not mean the pre-FIRM subsidy is eliminated in four years).

	Annual Rate of Phaseout			
Property Type or Circumstance	After BW-12	After HFIAA (current)		
Primary residence				
and all other properties not included in other categories	Five-year phaseout starting after property is identified on new FIRMª	5-15% ^b		
purchased after July 6, 2012	Eliminated immediately	Reinstated, 5-15% ^b		
not insured by NFIP as of July 6, 2012	Eliminated immediately	Reinstated, 5-15% ^b		
Nonprimary residence	25%	25%		
Nonresidential properties other than business properties ^c	25%	5-15% ^b		
Business properties	25%	25%		
Property with severe repetitive loss ^d	25%	25%		
Property with substantial cumulative damage ^e	25%	25%		
Property with substantial damage or improvement after July 6, 2012 ^f	25%	25%		
Owner let NFIP policy lapse	Eliminated immediately ^g	Eliminated immediately ^h		
Prospective insured who refuses to accept offers for mitigation assistance ⁱ	Eliminated immediately	Eliminated immediately		

Table 4. Phaseout of NFIP Pre-FIRM Premium Subsidy Following Legislation

Source: CRS analysis of P.L. 112-141 and P.L. 113-89. Adapted from Figure 3 from U.S. Government Accountability Office, Forgone Premiums Cannot Be Measured and FEMA Should Validate and Monitor Data System Changes, GAO-15-111, December 2014, p. 10, at http://www.gao.gov/assets/670/667413.pdf.

Notes:

- a. All properties with subsidies not being phased out at higher rates or already eliminated were required to begin paying actuarial rates following a five-year period, phased in at 20% a year, after a revised or updated flood insurance rate map (FIRM) was issued for the area containing the property. Thus, this provision would have gradually eliminated both pre-FIRM and grandfathering subsidies for all properties before being struck by HFIAA. See Section 100207 of P.L. 112-141, 126 Stat. 919.
- b. HFIAA permits individual property increases of up to 18%, but limits the rate class increases to 15% per year. See 42 U.S.C. §4015(e).
- c. Prior to BW-12, FEMA did not distinguish business properties from other nonresidential properties such as houses of worship, nonprofits, and schools. In order to implement the requirement that business properties should have their rates phased out at 25% annually, FEMA needed to increase all nonresidential properties at that rate. However, with greater distinguishing between property types possible with new data, and phaseout rate increases being capped by HFIAA, nonresidential properties other than business properties are now having their subsidies phased out at 5%-15% instead of 25%. For more discussion on this issue, see U.S. Government Accountability Office, *Status of FEMA's Implementation of the Biggert-Waters Act, as Amended*, GAO-15-178, February 2015, p. 22, at http://www.gao.gov/products/GAO-15-178, and FEMA, *April 1, 2019 and January 1, 2020 Program Changes*, WYO Program Bulletin W-15046, Attachment A, at https://nfipservices.floodsmart.gov/sites/default/files/w-18021a.pdf.
- d. Severe repetitive loss properties are those that have incurred four or more claim payments exceeding \$5,000 each, with a cumulative amount of such payments over \$20,000; or at least two claims with a cumulative total exceeding the value of the property. See 42 U.S.C. §4014(h) and 44 C.F.R. §79.2(h).

- e. Any property that has incurred flood-related damage in which the cumulative amounts of payments under the NFIP equaled or exceeded the fair market value of such property. See 42 U.S.C. §4014(a)(2)(C).
- f. Any property that has experienced or sustained substantial damage exceeding 50% of the fair market value or substantial improvement exceeding 50% of the fair market value. See 42 U.S.C. §4014(a)(2)(E). Section 100205(a)(1)(A) of BW-12 (P.L. 112-141, 126 Stat. 917) originally set the substantial improvement amount at 30%, but HFIAA raised the percentage to 50% of fair market value.
- g. As required by Section 100205(a)(1)(B) of BW-12 (P.L. 112-141, 126 Stat. 917), only for NFIP policies that lapsed in coverage as a result of the deliberate choice of the policyholder. If a policy lapses for other reasons, rate increases of 25% may have applied if the policy qualifies under one of the other property categories.
- h. HFIAA revised the condition for policy lapse to be for NFIP all policies that lapsed in coverage unless the decision of the policyholder to permit a lapse in coverage was as a result of the property covered by the policy no longer being required to retain such coverage. For any policy that lapses but is not automatically charged full-risk rates, rate increases of 25% or 5% to 15% may apply if the policy qualifies under one of the other categories stated above. See 42 U.S.C. §4014(g)(1).
- i. Any prospective insured who refuses to accept any offer for mitigation assistance by the FEMA (including an offer to relocate), including an offer of mitigation assistance following a Stafford Act major disaster; or in connection with a repetitive loss property or a severe repetitive loss property. See 42 U.S.C. §4014(g)(2).

Newly Mapped Subsidy

Congress introduced a new form of subsidy in HFIAA, for owners of properties newly mapped into a SFHA.¹⁰¹ The newly mapped procedure applies to properties previously in zones B, C, X, D, AR, or A99,¹⁰² which are newly mapped into a SFHA on or after April 1, 2015, if the applicant obtains coverage that is effective within 12 months of the map revision date. The newly mapped procedure does not apply to properties mapped into a SFHA by the initial FIRM for a community entering the NFIP, and certain properties may be excluded based on their loss history.¹⁰³ The rate for eligible newly mapped properties is equal to the PRP rate, but with a higher Federal Policy Fee,¹⁰⁴ for the first 12 months following the map revision. After the first year, the newly mapped rate will begin its transition to a full-risk rate, with annual increases to newly mapped policy premiums calculated using a multiplier that varies by the year of the map change.¹⁰⁵ Annual increases are restricted to no more than 18% per year. As of September 2016, 3.9% of all policies received a newly mapped subsidy.¹⁰⁶

Grandfathering Cross-Subsidy

Using the authority to set rate classes for the NFIP and to offer lower than actuarial premiums,¹⁰⁷ FEMA allows property owners to maintain their old flood insurance rate class if their property is remapped into a new flood rate class. This practice is colloquially referred to as "grandfathering,"

¹⁰¹ Section 6 of P.L. 113-89, 128 Stat.1028, as codified at 42 U.S.C. §4015(i).

¹⁰² See **Table 1**.

¹⁰³ For properties which are excluded from, or ineligible for, the newly mapped subsidy, see FEMA, *Flood Insurance Manual, 3. How to Write*, revised October 2018, pp. 3-38 to 3-45, https://www.fema.gov/media-library-data/1541619486310-878aa52bac8ac0a6baabe8ac90c92719/3_how_to_write_508_oct2018.pdf.

¹⁰⁴ The FRP for a newly mapped property is \$50, where the FPF for PRP is \$25. See FEMA, *Flood Insurance Manual*, *3. How to Write*, Revised October 2018, p. 3-29, at https://www.fema.gov/media-library-data/1541619486310-878aa52bac8ac0a6baabe8ac90c92719/3_how_to_write_508_oct2018.pdf.

¹⁰⁵ FEMA, Attachment A: April 1, 2019 and January 1, 2020 Program Changes: A Summary, at https://nfipservices.floodsmart.gov/sites/default/files/w-18021a.pdf.

¹⁰⁶ Email correspondence from FEMA Congressional Affairs staff, March 3, 2017.

¹⁰⁷ 42 U.S.C. §4013(a).

"administrative grandfathering," or the "grandfather rule" and is separate and distinct from the pre-FIRM subsidy.¹⁰⁸ To understand the grandfather rule, consider a hypothetical property X that is currently mapped into one flood zone (e.g., Zone AE), and is built to the proper building code and standards. If property X then is remapped to a new flood zone (e.g., Zone VE) and has maintained continuous insurance coverage under the NFIP, the owner of property X can pay the flood insurance rate and premium based on the prior mapped zone (i.e., pay the AE rate instead of the higher VE rate). A policyholder with a property may also be grandfathered if the elevation of a base flood is changed in a map, but the property itself does not change flood zones.¹⁰⁹

Congress eliminated the practice of offering grandfathering to policyholders after new maps were issued in BW-12, but then subsequently reinstated the practice in HFIAA.¹¹⁰ FEMA does not have a definitive estimate on the number of properties that have a grandfathered rate in the NFIP, though data are being collected to fulfill a separate mandate of HFIAA.¹¹¹ Unofficial estimates suggest that at least 10%-20% of properties are grandfathered, and these figures may increase with time as newer maps are introduced in high population areas.¹¹²

FEMA does not consider the practice of grandfathering to be a subsidy for the NFIP, per se, because the discount provided to an individual policyholder is cross-subsidized by other policyholders in the NFIP. Thus, while grandfathering does intentionally allow grandfathered policyholders to pay premiums that are less than their known actuarial rate, the discount is offset by others in the same rate class as the grandfathered policyholder. Although FEMA does not have an estimate of how many properties are paying grandfathered rates, the program tries to recoup lost revenue by charging higher rates for other policies in the SFHA. It is not clear, however, whether the NFIP is increasing other SFHA policy premiums by an amount equal to the discount from other NFIP risk-based rates that are being paid by the grandfathered properties.¹¹³

Community Rating System

Through a program called the Community Rating System (CRS), FEMA encourages communities to improve upon the minimum floodplain management standards that are required to participate in the NFIP. The CRS Program, as authorized by law, is intended to incentivize the reduction of flood and erosion risk, as well as the adoption of more effective measures to protect natural and

¹⁰⁸ For a full description, see FEMA, *NFIP Grandfathering Rules for Agents*, March 2016, at https://www.fema.gov/media-library-data/1488482596393-dcc52e6c120c9327dcd75f1c08e802e4/GrandfatheringForAgents_03_2016.pdf.

¹⁰⁹ For a description of the types of grandfathering, see National Academies of Sciences, *Affordability of National Flood Insurance Program Premiums: Part 1*, 2015, p. 43, at http://www.nap.edu/catalog/21709/affordability-of-national-flood-insurance-program-premiums-report-1.

¹¹⁰ Section 100207 of P.L. 112-141 amended the law to require that when a property has a revised or updated flood rate class with a new flood map, the "risk premium rate charged for flood insurance on such property adjusted to accurately reflect the current risk of flood to such property" (126 Stat. 919), thus eliminating the ability to grandfather. This provision was struck by Section 4 of P.L. 113-89, 128 Stat. 1022.

¹¹¹ Section 28 of HFIAA (P.L. 113-89, 128 Stat. 1033) requires that the Administrator "clearly communicate full flood risk determinations to individual property owners regardless of whether their premium rates are full actuarial rates." To fulfill this mandate, FEMA must identify all properties that are grandfathered or pre-FIRM and notify those policyholders what their property's true flood risk is versus the risk they are currently paying for with a subsidy/cross-subsidy.

¹¹² Telephone correspondence with FEMA staff, January 20, 2016; and see National Academies of Sciences, *Affordability of National Flood Insurance Program Premiums: Part 1*, 2015, p. 74, at http://www.nap.edu/catalog/21709/affordability-of-national-flood-insurance-program-premiums-report-1.

¹¹³ National Academies of Sciences, *Affordability of National Flood Insurance Program Premiums: Part 1*, 2015, p. 43, at http://www.nap.edu/catalog/21709/affordability-of-national-flood-insurance-program-premiums-report-1.

beneficial floodplain functions.¹¹⁴ FEMA awards points that increase a community's "class" rating in the CRS on a scale of 1 to 10, with 1 being the highest ranking. Points are awarded for an array of improvements for how the community informs its public on flood risk; maps and regulates its floodplain; reduces possible flood damage; and provides immediate warnings and responds to flooding incidents.¹¹⁵ Starting at Class 9, policyholders in the SFHA within a CRS community receive a 5% discount on their SFIP premiums, with increasing discounts of 5% per class until reaching Class 1, and at that level, policyholders in the SFHA can receive a 45% discount on their SFIP premiums. These discounts are not extended to PRPs.

In order to participate in the CRS Program, a community must apply to FEMA and document its creditable improvements through site visits and assessments. As of June 2017, FEMA estimated that only 5% of eligible NFIP communities participate in the CRS program. However, these communities have a large number of flood policies, so more than 69% of all flood policies are written in CRS-participating NFIP communities.¹¹⁶ One can determine if and how highly rated a community is in the CRS Program through the most recent Flood Insurance Manual.¹¹⁷

For April 2014 premium rates, the National Research Council estimated that the CRS program provided an average 11.4% discount on SFIP premiums across the NFIP.¹¹⁸ The CRS discount is cross-subsidized into the NFIP program, such that the discount for one community ends up being offset by increased premium rates in all communities across the NFIP. Therefore, for April 2014 rates, the average 11.4% discount for CRS communities was cross-subsidized and shared across NFIP communities through a cost (or load) increase of 13.4% to overall premiums.¹¹⁹ Thus in some circumstances, the discount provided to communities participating in the CRS Program may be less than the expense of the overall CRS Program.

Affordability Study and Framework

Congress has expressed concern related to the perceived affordability of flood insurance premiums. In BW-12, Congress required FEMA to commission a study with the National Academy of Sciences (NAS) regarding participation in the NFIP and the affordability of premiums. The Affordability Study was not finished by its original deadline (270 days following enactment of BW-12). Congress amended the authorization for the Study while also extending the deadline in HFIAA.¹²⁰ The NAS has since completed the Affordability Study report in two parts.¹²¹ In HFIAA, Congress also required FEMA to develop a Draft Affordability Framework

¹¹⁴ 42 U.S.C. §4022(b)(1).

¹¹⁵ For a full listing of possible creditable activities in the CRS, see FEMA, *NFIP Community Rating Coordinator's Manual 2017*, at https://www.fema.gov/media-library-data/1493905477815-d794671adeed5beab6a6304d8ba0b207/ 633300_2017_CRS_Coordinators_Manual_508.pdf.

¹¹⁶ See FEMA, *Community Rating System Fact Sheet*, June 2017, at https://www.fema.gov/media-library-data/ 1507029324530-082938e6607d4d9eba4004890dbad39c/NFIP_CRS_Fact_Sheet_2017_508OK.pdf.

¹¹⁷ For example, see FEMA, *Flood Insurance Manual, Appendix F: Community Rating System Section*, Revised October 2018, at https://www.fema.gov/media-library-data/1538670889773-81423feb161c06426ac157a409123f3d/ app-f_crs_508_oct2018.pdf.

¹¹⁸ For additional details, see National Research Council of the National Academies, *Affordability of National Flood Insurance Program Premiums: Report 1*, 2015, pp. 44 and 114, at http://www.nap.edu/catalog/21709/affordability-ofnational-flood-insurance-program-premiums-report-1.

¹¹⁹ A more recent average CRS premium discount is not available; however, according to FEMA it changes very little from year to year. Email correspondence from FEMA Congressional Affairs staff, June 15, 2017.

¹²⁰ See Section 100236 of P.L. 112-141, 126 Stat. 957; as amended by Section 16 of P.L. 113-89, 128 Stat. 1026.

¹²¹ See National Research Council of the National Academies, *Affordability of National Flood Insurance Program Premiums: Report 1*, 2015, at http://www.nap.edu/catalog/21709/affordability-of-national-flood-insurance-program-

"that proposes to address, via programmatic and regulatory changes, the issues of affordability of flood insurance sold under the National Flood Insurance Program, including issues identified in the affordability study."¹²² Due 18 months following the submission of the Affordability Study, the deadline for the Framework, based on FEMA's stated date of submittal of the Affordability Study, was September 10, 2017.¹²³ FEMA published their Affordability Framework on April 17, 2018.¹²⁴

Nonparticipating Communities and Community Suspension

There are two regulatory conditions that FEMA enforces for removing a participating community from the NFIP, called probation and suspension. Whether or not a particular community has either been placed on probation or suspended can be found using the NFIP's Community Status Book.¹²⁵ Notably, a community cannot be removed from the NFIP because of increased or excess flood insurance claims and losses. Rather, probation and suspension only occur if the community fails to uphold its obligations related to floodplain management.

A community can be placed on probation by FEMA if it is found that it is failing to adequately enforce the floodplain management standards it has adopted. As established by regulations, probation can result in a fee of \$50 being charged to all policyholders in the community while the community is given time to rectify FEMA's concerns regarding their implementation of the floodplain management standards. Ultimately, if the community does not correct its cited deficiencies after given time periods described in regulations, the community will be suspended from the NFIP by FEMA.¹²⁶

A community can also be involuntarily suspended from the NFIP for either

- failing to adopt an approved floodplain map and an approved set of floodplain management standards within the time periods required by regulations; or
- repealing or revising its floodplain management standards to a level below the minimum standards set forth in regulations.¹²⁷

A suspended community may be reinstated to the NFIP once the relevant errors or deficiencies provoking the suspension have been resolved to meet FEMA's specification.

Communities that have been suspended or those communities that do not participate in the NFIP can face significant consequences. Primarily, members of these communities are not able to

premiums-report-1; and National Research Council of the National Academies, *Affordability of National Flood Insurance Program Premiums: Report 2*, 2016, at http://www.nap.edu/catalog/21848/affordability-of-national-flood-insurance-program-premiums-report-2.

¹²² Section 9(a) of P.L. 113-89, 128 Stat. 1024.

¹²³ Section 9(c) of P.L. 113-89, 128 Stat. 1024. FEMA has stated it officially submitted the Affordability Study on March 10, 2016 (email correspondence with FEMA Congressional Affairs staff, March 10, 2016). However, Part 2 of the Affordability Study was available from the NAS website on December 11, 2015.

¹²⁴ FEMA, An Affordability Framework for the National Flood Insurance Program, Washington, DC, April 17, 2018, https://www.fema.gov/media-library/assets/documents/163171.

¹²⁵ See FEMA's website for the Community Status Book at https://www.fema.gov/national-flood-insurance-program-community-status-book.

¹²⁶ For additional details on probation, see 44 C.F.R. 59.24(b) and (c).

¹²⁷ See 44 C.F.R. 59.24(a) and (d).

purchase primary flood insurance through the NFIP, which may result in significant uninsured property risk in that community. However, communities may elect not to participate in the NFIP because they have very little flood risk to begin with, given their particular geography or climate.

In addition, if a community does not participate in, or has been suspended from, the NFIP but has been previously mapped by FEMA for flood hazards, it is difficult for the community and policyholders to access other forms of federal assistance for areas in the floodplain.¹²⁸ For example, by law, no federal assistance may be provided for acquisition or construction purposes in an area that has been identified as having special flood hazards unless the property is covered by flood insurance.¹²⁹ Likewise, federally backed mortgages still require flood insurance for properties in the SFHA, so these property-owners would be required to obtain such insurance in the private market. A community is allowed to leave the NFIP at its will, but the potential consequences of that decision are similar to those if the community has been suspended.

Funding

The funding for the NFIP is primarily maintained in an authorized account called the National Flood Insurance Fund (NFIF).¹³⁰ Generally, the NFIP has been funded through three methods:

- receipts from the premiums of flood insurance policies, including fees and surcharges;
- direct annual appropriations for specific costs of the NFIP; and
- borrowing from the U.S. Treasury when the balance of the NFIF has been insufficient to pay the NFIP's obligations (e.g., insurance claims).

This section of the report briefly discusses each of these three methods of NFIP funding.

Premium Fees and Surcharges

As of October 2018, the written premium on approximately 5 million policies in force was about \$3.6 billion.¹³¹ Included within the premiums are several fees and surcharges on flood insurance policies mandated by law. First, the Federal Policy Fee (FPF) was authorized by Congress in 1990 and helps pay for the administrative expenses of the program, including floodplain mapping and some of the insurance operations.¹³² The amount of the FPF is set by FEMA and can increase or decrease year to year. Since the April 2016 rating period, the FPF has been set at a flat rate of \$50 for SFIPs, and \$25 for PRPs. As of October 2017, the FPF is also \$25 for contents-only policies.¹³³

¹²⁸ For more on how individuals may receive assistance following a flood, see CRS Report R44808, *Federal Disaster Assistance: The National Flood Insurance Program and Other Federal Disaster Assistance Programs Available to Individuals and Households After a Flood*, by Diane P. Horn. For additional details on the effects of suspension, see FEMA's website at http://www.fema.gov/suspension.

¹²⁹ 42 U.S.C. §4012a(a).

¹³⁰ The NFIF is authorized by 42 U.S.C. §4017.

¹³¹ The approximately \$3.6 billion in premiums, for more than 5.1 million policies, provides for over \$1.3 trillion in insured coverage across the nation. For full statistics, including breakdowns by state, see FEMA's website at http://bsa.nfipstat.fema.gov/reports/1011.htm.

^{132 42} U.S.C. §4014(a)(1)(B)(iii).

¹³³ See FEMA, *Flood Insurance Manual, Appendix J: Rate Tables*, p. J-16, revised October 2018, at https://www.fema.gov/media-library-data/1538670910296-81423feb161c06426ac157a409123f3d/app-

Second, a Reserve Fund assessment was authorized by Congress in BW-12 to establish and maintain a Reserve Fund to cover future claim and debt expenses, especially those from catastrophic disasters.¹³⁴ By law, FEMA is ultimately required to maintain a reserve ratio of 1% of the total loss exposure through the Reserve Fund assessment.¹³⁵ As of January 2019, the amount required for the Reserve Fund ratio was approximately \$13.07 billion. However, FEMA is allowed to phase in the Reserve Fund assessment to obtain the ratio over time, with an intended target of not less than 7.5% of the 1% Reserve Fund ratio in each fiscal year (so, using January 2019 figures, not less than approximately \$980 million each year). Since April 2016, using its discretion, FEMA has charged every NFIP policy a Reserve Fund assessment has increased from its original status, in October 2013, of 5% on all SFIPs, and 0% on PRPs.¹³⁷

In addition to the Reserve Fund assessment, all NFIP policies are also assessed a surcharge following the passage of HFIAA.¹³⁸ The amount of the surcharge is dependent on the type of property being insured. For primary residences, the charge is \$25; for all other properties, the charge is \$250.¹³⁹ Revenues from the surcharge are deposited into the Reserve Fund.

Appropriations and Offsetting Receipts

Table 5 displays how Congress has appropriated and authorized offsetting receipts for the NFIP from FY2015 to FY2018. As provided for in law, all premiums from the sale of NFIP insurance are transferred to FEMA and deposited in the NFIF.¹⁴⁰ Congress then authorizes FEMA to withdraw funds from the NFIF, and use those funds for specified purposes needed to operate the NFIP. In addition to premiums, Congress has also provided annual appropriations to supplement floodplain mapping activities. In addition to the mix of discretionary and mandatory funding levels indicated in **Table 5**, which are set in appropriations legislation, fluctuating levels of mandatory spending occur in the NFIP in order to pay and adjust claims on affected NFIP policies.¹⁴¹

 $j_rate_tables_508_oct2018.pdf.$

¹³⁴ Section 100212 of P.L. 112-141, 126 Stat. 992, as codified at 42 U.S.C. §4017a.

¹³⁵ 42 U.S.C. §4017a(b).

¹³⁶ See Federal Emergency Management Agency, *Flood Insurance Manual, Appendix J: Rate Tables*, p. J-16, revised October 2018, at https://www.fema.gov/media-library-data/1538670910296-81423feb161c06426ac157a409123f3d/ app-j_rate_tables_508_oct2018.pdf.

¹³⁷ For additional information on the Reserve Fund, see FEMA, *Quarterly NFIP Reserve Fund Report*, June 15, 2016.

¹³⁸ Section 8(a) of P.L. 113-89, 128 Stat. 1023.

¹³⁹ For a description of the how the fee is applied to different policy types, see FEMA, *The HFIAA Surcharge Fact Sheet*, April 2015, at https://www.fema.gov/media-library/assets/documents/105569.

^{140 42} U.S.C. §4017(b).

¹⁴¹ This mandatory spending is authorized by 42 U.S.C. §4017(d)(1). All other expenses using the NFIF must be authorized in appropriations acts, per 42 U.S.C. §4017(f).

Table 5. Budget Authority for the N	NFIP, FY2015-FY2018
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(millions of dollars of budget authority, available for the fiscal year unless otherwise indicated)

Form of Budget Authority	Activity	FY2015, P.L. 114-4	FY2016, P.L. 114-113	FY2017 P.L. 115-31	FY2018 P.L. 115-141
Discretionary appropriations	Flood hazard mapping and risk analysis program ^a (available until expended)	\$100.0	\$190.0	\$177.5	\$262.5
Spending authority from offsetting collections, discretionary	Salaries and expenses associated with flood management and flood insurance operations	\$23.8	\$25.3	\$I3.4 ^b	\$13.57 ^b
	Floodplain management and flood mapping ^c	\$155.5	\$155.9	\$168.4	\$189.9
Spending authority from offsetting collections, mandatory (amount is shown as a limitation provided in appropriations legislation)	Operating expenses	\$136.0	\$133.3	\$147.0 ^b	\$I.165 ^b
	Commissions and taxes of agents	\$1,139.0	\$1,123.0	\$1,123.0	\$1,123.0
	Interest on Treasury borrowings ^d	Such sums as necessary	Such sums as necessary	Such sums as necessary	Such sums as necessary
	Flood mitigation assistance ^e (available until expended)	\$150.0	\$175.0	\$175.1	\$175.0
	Flood Insurance Advocate ^r	\$5.0	\$5.0	\$5.0	\$5.0

Source: CRS analysis of P.L. 114-4, P.L. P.L. 114-113, P.L. 115-31, and P.L. 115-141.

- a. Generally, for necessary expenses, including administrative costs, related to the Risk MAP program authorized by 42 U.S.C. §§4101, 4101a, 4101b, 4101c, 4101d, and 4101e.
- b. The FY2017 and FY2018 budgets includes the amount of offsetting collections for *flood insurance operations* within the "operating expenses" activity, instead of the broader "salaries and expenses associated with flood management and flood insurance operations" activity as was done in P.L. 114-4 and P.L. 114-113.
- c. Offsetting receipts for "floodplain management and flood mapping" can generally been viewed as supplementing the discretionary appropriation for "flood hazard mapping and risk analysis program."
- d. The amount of interest paid on borrowed amounts for the U.S. Treasury fluctuates annually based on a number of factors, including the interest rate of the borrowing; the available funds for interest and principal payments after claims payments; the amount borrowed; how the debt is being serviced in loans, and fiscal decisions by FEMA to build the Reserve Fund as opposed to paying off principal and interest on the debt. FEMA reported interest payments of approximately \$393.76 million in FY2017 and \$367.64 million in FY2018 (source: FEMA Watermark, Fiscal Year 2018, Fourth Quarter, Volume 4, December 20, 2018, at https://www.fema.gov/media-library-data/1545397661560-304b80840df679ceecbb1cf8c20a8f96/fima-watermark-2018-q4-508compliant2.pdf).
- e. Flood mitigation assistance is authorized by 42 U.S.C. §4104c.
- f. The Flood Insurance Advocate is authorized by 42 U.S.C. §4033.

Borrowing from the U.S. Treasury, NFIP Debt

Congress has authorized FEMA to borrow no more than \$30.425 billion from the U.S. Treasury in order to operate the NFIP. The authorization for this borrowing would be reduced to \$1 billion after May 31, 2019, were the NFIP to be allowed to lapse.¹⁴² In January 2017, the NFIP borrowed \$1.6 billion due to losses in 2016 (the August 2016 Louisiana floods and Hurricane Matthew). On September 22, 2017, the NFIP borrowed the remaining \$5.825 billion from the Treasury to cover claims from Hurricane Harvey, Hurricane Irma, and Hurricane Maria, reaching the NFIP's authorized borrowing limit of \$30.425 billion.¹⁴³ On October 26, 2017, Congress cancelled \$16 billion of NFIP debt, making it possible for the program to pay claims for Hurricanes Harvey, Irma, and Maria.¹⁴⁴ This represents the first time that NFIP debt has been cancelled, although Congress appropriated funds between 1980 and 1985 to repay NFIP debt.¹⁴⁵ FEMA borrowed another \$6.1 billion on November 9, 2017, to fund estimated 2017 losses, including those incurred by Hurricanes Harvey, Irma, and Maria and anticipated programmatic activities, bringing the debt up to \$20.525 billion. The NFIP currently has \$9.9 billion of remaining borrowing authority.¹⁴⁶

The NFIP's debt to the U.S. Treasury cannot be tied directly to any single incident, as any insurance claim paid by the NFIP is in some way responsible for the existing debt of the NFIP (i.e., a dollar paid in claims, and therefore expended by the NFIP, following a minor flooding incident is no different than a dollar paid following a major hurricane). However, the NFIP was forced to borrow heavily to pay claims in the aftermath of two catastrophic flood seasons, the 2005 hurricane season (particularly Hurricanes Katrina, Rita, and Wilma) and Hurricane Sandy in 2012.¹⁴⁷ For example, following Hurricane Sandy, Congress passed P.L. 113-1 to increase the borrowing limit of the NFIP from \$20.775 billion to the current \$30.425 billion. Prior to Hurricane Katrina in 2005, the NFIP had generally been able to cover its costs, borrowing relatively small amounts from the U.S. Treasury to pay claims, and then repaying the loans with interest.

The NFIP's debt is conceptually owed by current and future participants in the NFIP, as the insurance program itself owes the debt to the Treasury and pays for accruing interest on that debt through the premium revenues of policyholders. For example, from FY2006 to FY2016 (i.e., since the NFIP borrowed funds following Hurricane Katrina), the NFIP has paid \$2.82 billion in principal repayments and \$3.83 billion in interest to service the debt through the premiums collected on insurance policies.¹⁴⁸

Under its current authorization, the only means the NFIP has to pay off the debt is through the accrual of premium revenues in excess of outgoing claims, and from payments made out of the

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^{142 42} U.S.C. §4016(a).

¹⁴³ FEMA Watermark, Fiscal Year 2018, First Quarter, Volume 1, March 21, 2018, at https://www.fema.gov/media-library-data/1522167351921-a5e457454262dd100e2f15a7210d21c5/Watermark_FY18_Q1_v6_508.pdf.

¹⁴⁴ P.L. 115-72, Title III, §308.

¹⁴⁵ Funds for "repayment under notes" were appropriated in P.L. 96-526, 94 Stat. 3053; P.L. 97-101, 95 Stat. 1425; P.L. 97-272, 96 Stat. 1169; P.L. 98-45, 97 Stat. 228; P.L. 98-371, 98 Stat. 1224; and P.L. 99-160, 99 Stat. 918.

¹⁴⁶ FEMA Watermark, Fiscal Year 2018, Fourth Quarter, Volume 4, December 20, 2018, at https://www.fema.gov/media-library-data/1545397661560-304b80840df679ceecbb1cf8c20a8f96/fima-watermark-2018-q4-508compliant2.pdf.

¹⁴⁷ For accounting of the NFIP's premium revenues and claims/loss data, see FEMA's website for policy and claim statistics at https://www.fema.gov/policy-claim-statistics-flood-insurance.

¹⁴⁸ FEMA, Semi-Annual NFIP Debt Repayment Progress Report, September 30, 2016, p. 15.

growing Reserve Fund. As required by law, FEMA submitted a report to Congress in 2013 on how the borrowed amount from the U.S. Treasury could be repaid within a 10-year period.¹⁴⁹ Whether or not FEMA will ultimately be able to pay off the debt is largely dependent on future insurance claims, namely if a catastrophic flooding incident such as Hurricanes Harvey, Sandy, or Katrina occurs again and with what frequency. However, using various predictions for both revenues (i.e., premiums) and losses (i.e., insurance claims), FEMA's report on debt repayment indicated even with the most optimistic scenario of future flooding it would take at least 13 years to repay the debt. In more realistic scenarios, the debt would not be paid off for at least 20 years, or it may increase considerably with future catastrophic incidents.¹⁵⁰ For example, in April 2017, CBO projected that the NFIP would have insufficient receipts to pay the expected claims and expenses over the 2018-2027 period and that FEMA would need to use about \$1 billion of its then-current \$5.825 billion borrowing authority to pay those expected claims.¹⁵¹ Also in April 2017, FEMA updated some of the assumptions in the October 2015 NFIP Semi-Annual Debt Repayment Progress Report and estimated that at the end of 20 years, the NFIP's net debt would increase by a further \$9.4 billion.¹⁵² No projections of the NFIP debt have yet been made that take account of the cancellation of \$16 billion of NFIP debt, or the as yet unknown total claims of the 2017 hurricane season.

NFIP Purchase of Reinsurance

In HFIAA-14, Congress revised the authority of FEMA to secure reinsurance for the NFIP from the private reinsurance and capital markets.¹⁵³ In September 2016, FEMA secured its first placement of reinsurance for the NFIP, contracting for reinsurance cover which ran from September 19, 2016, through March 19, 2017, structured into two coverage layers. Under the first layer, the reinsurers would indemnify FEMA \$1 million for flood claims losses that exceed \$5 million. Under the second layer, the reinsurers would indemnify FEMA \$1,000,000 when the total losses from a single flood event exceed \$5.5 billion.¹⁵⁴ In January 2017, FEMA purchased \$1.042 billion of insurance, to cover the period from January 1, 2017, to January 1, 2018, for a reinsurance premium of \$150 million. Under this agreement, the reinsurance covered 26% of losses between \$4 billion and \$8 billion arising from a single flooding event. The purchase of private market reinsurance reduces the likelihood of FEMA needing to borrow from the Treasury to pay claims. However, since FEMA is withdrawing funds from the Reserve Fund to pay for this reinsurance, it subsequently increases the cost of insurance to policyholders. FEMA's modeling of the NFIP portfolio before the reinsurance purchase suggested that there was a 17.2% chance of losses from an event exceed \$4 billion in 2017.¹⁵⁵ FEMA has already paid over \$8.67 billion in

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¹⁴⁹ See 42 U.S.C. §4016(d), as enacted by Section 100213(a) of P.L. 112-141 (BW-12).

¹⁵⁰ See FEMA, Semi-Annual NFIP Debt Repayment Progress Report, September 30, 2016, p. 9.

¹⁵¹ CBO, Preliminary Results from CBO's Analysis of the National Flood Insurance Program, at https://www.cbo.gov/publication/52638.

¹⁵² Email correspondence from FEMA Congressional Affairs Staff, April 5, 2017. The revised assumptions used in making this projection were (1) accounting for the significant flooding in FY2016, including Baton Rouge flooding but excluding Hurricane Matthew; (2) revised premium increases for the final five years of the projection, resulting in lower premium and Reserve Fund projections; and (3) changes in the projected numbers of policies-in-force.

¹⁵³ See §10 of P.L. 113-89, 128 Stat. 1025, as codified at 42 U.S.C. §4081(e).

¹⁵⁴ See FEMA, *National Flood Insurance Program Reinsurance Program*, at https://www.fema.gov/nfip-reinsurance-program.

¹⁵⁵ Ibid.

claims for Hurricane Harvey, triggering the full 2017 reinsurance.¹⁵⁶ In January 2018, FEMA purchased \$1.46 billion of insurance to cover the period from January 1, 2018, to January 1, 2019, for a reinsurance premium of \$235 million. The agreement is structured to cover losses above \$4 billion for a single flooding event, covering 18.6% of losses between \$4 billion and \$6 billion, and 54.3% of losses between \$6 billion and \$8 billion.¹⁵⁷ In August 2018, FEMA entered into its first transfer of NFIP risk to private risk markets through an insurance-linked securities transfer, in the form of a three-year agreement with Hannover Re, a reinsurance company. Hannover Re is acting as a "transformer," transferring \$500 million of the NFIP's financial risk to the capital markets by sponsoring issuance of an indemnity-triggered cat bond. Hannover Re will indemnify FEMA for a portion of claims for a single qualifying flooding event that occurs between August 1, 2018, and July 31, 2021. The agreement is structured into two tranches. The first provides reinsurance coverage for 3.5% of losses between \$5 and \$10 billion, and the second for 13% of losses between \$7.5 and \$10 billion. FEMA paid a premium of \$62 million for the first year of coverage. Unlike the earlier reinsurance purchases, which covered all NFIP flood losses, the catastrophe bond applies only to flooding resulting directly or indirectly from a named storm and covers only the 50 states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands. Combined with the January 2018 reinsurance placement, FEMA transferred \$1.96 billion of the NFIP's flood risk for the 2018 hurricane season to the private sector.¹⁵⁸

Expiration of Certain NFIP Authorities

The statute for the NFIP does not contain a comprehensive expiration, termination, or sunset provision for the whole of the program. Rather, the NFIP has multiple different legal provisions that generally tie to the expiration of key components of the program. Unless reauthorized or amended by Congress, the following will occur after May 31, 2019:

- The authority to provide *new* flood insurance contracts will expire.¹⁵⁹ Flood insurance contracts entered into before the expiration would continue until the end of their policy term of one year.
- The authority for NFIP to borrow funds from the Treasury will be reduced from \$30.425 billion to \$1 billion.¹⁶⁰

Other activities of the program would technically remain authorized following May 31, 2019, such as the issuance of FMA grants.¹⁶¹ However, the expiration of the key authorities described above would have varied, generally serious effects on these remaining NFIP activities.

¹⁵⁶ Email correspondence from FEMA Congressional Affairs Staff, December 3, 2018.

¹⁵⁷ FEMA, *National Flood Insurance Program (NFIP) Reinsurance Program*, at https://www.fema.gov/nfip-reinsurance-program.

¹⁵⁸ Ibid. For additional information on this, see CRS Insight IN10965, *The National Flood Insurance Program (NFIP)*, *Reinsurance, and Catastrophe Bonds*, by Diane P. Horn and Baird Webel.

^{159 42} U.S.C. §4026.

¹⁶⁰ 42 U.S.C. §4016(a).

¹⁶¹ See 42 U.S.C. §4104c and 42 U.S.C. §4104d.

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