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National Flood Insurance Program: Selected Issues and Legislation in the 115th Congress

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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 until November 30, 2018 (P.L. 115-225). 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. A longer-term objective of the NFIP is to reduce federal expenditure on disaster assistance after floods. The NFIP also engages in many "non-insurance" activities in the public interest: it disseminates flood risk information through flood maps, requires community land use and building code standards, and offers grants and incentive programs for household- and community-level investments in flood risk reduction. Unless reauthorized or amended by Congress, the following will occur on November 30, 2018: (1) the authority to provide new flood insurance contracts will expire and (2) the authority for NFIP to borrow funds from the Treasury will be reduced from $30.425 billion to $1 billion.

The House passed H.R. 2874, the 21st Century Flood Reform Act, on November 14, 2017, on a vote of 237-189. H.R. 2874 would authorize the NFIP until September 30, 2022. Three bills have been introduced in the Senate to reauthorize the NFIP: S. 1313 (Flood Insurance Affordability and Sustainability Act of 2017), S. 1368 (Sustainable, Affordable, Fair, and Efficient [SAFE] National Flood Insurance Program Reauthorization Act of 2017), and S. 1571 (National Flood Insurance Program Reauthorization Act of 2017). None of these bills have yet been taken up by the committee of jurisdiction. Issues which Congress may consider in the context of reauthorization include (1) NFIP solvency and debt; (2) premium rates and surcharges; (3) affordability; (4) increasing participation in the NFIP; (5) the role of private insurance and barriers to private sector involvement; (6) recurrent flooding and properties with multiple losses; (7) administrative reforms; (8) non-insurance functions of the NFIP such as floodplain mapping and flood mitigation; and (9) future flood risks, including future catastrophic events.

The Federal Emergency Management Agency (FEMA) has identified the need to increase flood insurance coverage across the nation as a major priority for the current reauthorization and beyond, with a goal of doubling flood insurance coverage by 2023 through the increased sale of both NFIP and private policies. The NFIP's premium rates do not reflect the full risk of loss because of various legislative requirements, which may exacerbate the program's fiscal exposure. The categories of properties which pay less than the full risk-based rate are determined by the date when the structure was built relative to the date of adoption of the Flood Insurance Rate Map, rather than the flood risk or the ability of the policyholder to pay. A reformed NFIP rate structure could have the effect of encouraging more private insurers to enter the primary flood market; however, full risk-based premiums could be unaffordable for some households.

Although the NFIP has always had borrowing authority from Congress, an approach has not been developed by which the NFIP can repay catastrophic flood losses. To ensure the future financial solvency of the NFIP after catastrophic events, FEMA has suggested that a systematic analysis may consider the costs and benefits of using the reserve fund, borrowing authority, reinsurance, other forms of risk transfer, and perhaps a Treasury backstop at some catastrophic loss level.

This report summarizes key insurance reform provisions in recent legislation, identifies issues for congressional consideration as part of the possible reauthorization of the NFIP, and describes selected provisions which relate to the issues listed above in the bill to reauthorize the NFIP passed by the House (H.R. 2874, the 21st Century Flood Reform Act) and the bills yet to be considered by the Senate (S. 1313, S. 1368, and S. 1571).

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Introduction

Congress is currently considering reauthorization of the National Flood Insurance Program (NFIP). The House passed a reauthorization bill (H.R. 2874) in November 2017, and three bills have been introduced in the Senate, but so far the NFIP has received a series of short-term reauthorizations. The debate over a longer reauthorization of the NFIP is taking place during the 2018 hurricane season, and in the aftermath of the 2017 hurricane season, which produced widespread flooding and renewed concern about the structure of the NFIP and its solvency in the face of catastrophic flood losses.

The NFIP is authorized by the National Flood Insurance Act of 1968[1] and was reauthorized until September 30, 2017, by the Biggert-Waters Flood Insurance Reform Act of 2012 (BW-12).[2] Congress amended elements of BW-12, but did not extend the NFIP's authorization further in the Homeowner Flood Insurance Affordability Act of 2014 (HFIAA).[3] The NFIP received a short-term reauthorization through December 8, 2017,[4] a second short-term reauthorization through December 22, 2017,[5] and a third short-term reauthorization through January 19, 2018.[6] The NFIP lapsed between January 20 and January 22, 2018, and received a fourth short-term reauthorization until February 8, 2018.[7] 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.[8] The NFIP received a sixth reauthorization until July 31, 2018,[9] and a seventh reauthorization until November 30, 2018.[10]

The NFIP is managed by the Federal Emergency Management Agency (FEMA), through its subcomponent Federal Insurance and Mitigation Administration (FIMA). 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. A longer-term objective of the NFIP is to reduce federal expenditure on disaster assistance after floods. The NFIP is discussed in more detail in CRS Report R44593, *Introduction to the National Flood Insurance Program (NFIP)*, by Diane P. Horn and Jared T. Brown. A brief overview of private flood insurance in the NFIP is given in CRS Insight IN10450, *Private Flood Insurance and the National Flood Insurance Program (NFIP)*, by Baird Webel and Diane P. Horn.

The NFIP is the primary source of flood insurance coverage for residential properties in the United States. As of May 2018, the NFIP had over 5 million flood insurance policies providing over $1.28 trillion in coverage. The program collects nearly $3.6 billion in annual premium revenue.[11] Nationally, as of July 2018, 22,322 communities in 56 states and jurisdictions

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[1] Title XIII of P.L. 90-448, as amended, 42 U.S.C. §§4001 et seq.

[2] Title II of P.L. 112-141.

[3] P.L. 113-89.

[4] P.L. 115-56, Division D, §130.

[5] P.L. 115-90.

[6] P.L. 115-96.

[7] P.L. 115-120.

[8] P.L. 115-123.

[9] P.L. 115-141, Division M, Title III.

[10] P.L. 115-225.

[11] Statistics on the National Flood Insurance Program (NFIP) policy and claims are available from the Federal Emergency Management Agency (FEMA) website at https://www.fema.gov/policy-claim-statistics-flood-insurance.

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] FEMA expects this amount to increase over time as additional new construction is built to increasingly better standards.[14]

Floods are the most common natural disaster in the United States, and in recent years all 50 states have experienced flood events.[15] U.S. flood losses in 2016 were about $17 billion, with losses from five individual flood-related events in 2016 exceeding $1 billion.[16] 2017 was the most costly year for U.S. hurricane losses on record. Losses from the Midwest flooding in April and May 2017 are estimated at $1.7 billion and losses from the California flooding in February 2017 at $1.5 billion.[17] The total for the 2017 hurricanes significantly exceeds the previous record of $214.8 billion (CPI-adjusted), from the 2005 hurricane season.[18] Total losses (insured and uninsured) for the 2017 hurricane season are estimated at a record $270.3 billion, with losses for Hurricane Harvey estimated at $127.5 billion, Hurricane Maria at $91.8 billion, and Hurricane Irma at $51.0 billion.[19]

This report summarizes key insurance reform provisions in recent legislation and identifies key issues for congressional consideration as part of the possible reauthorization of the NFIP. It describes selected provisions in the bill to reauthorize the NFIP passed by the House (H.R. 2874, the 21st Century Flood Reform Act) and the bills introduced in the Senate that relate to the issues discussed in the report. The provisions discussed in the report are listed in **Table 1** at the end of this report.

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 on November 30, 2018:

- The authority to provide *new* flood insurance contracts will expire.[20] Flood insurance contracts entered into before the expiration would continue until the end of their policy term of one year.

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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.

13 Email correspondence from FEMA Congressional Affairs staff, June 16, 2017.

14 U.S. Government Accountability Office (GAO), *Flood Insurance: Comprehensive Reform Could Improve Solvency and Enhance Resilience*, GAO-17-425, April 2017, p. 5, https://www.gao.gov/products/GAO-17-425.

15 See the NFIP FloodSmart website at https://www.floodsmart.gov/floodsmart/pages/flood_facts.jsp.

16 CoreLogic, *2016 Natural Hazard Risk Summary and Analysis*, January 26, 2017, https://www.corelogic.com/insights/natural-hazard-risk-summary-and-analysis.aspx.

17 NOAA National Centers for Environmental Information, Billion-Dollar Weather and Climate Disasters: Table of Events, https://www.ncdc.noaa.gov/billions/events/US/2017.

18 NOAA National Centers for Environmental Information, Billion-Dollar Weather and Climate Disasters: Overview, https://www.ncdc.noaa.gov/billions/overview.

19 Note that these figures include losses due to wind damage as well as flood damage.

20 42 U.S.C. §4026.

- The authority for NFIP to borrow funds from the Treasury will be reduced from $30.425 billion to $1 billion.[21]

Other activities of the program would technically remain authorized following November 30, 2018, such as the issuance of Flood Mitigation Assistance (FMA) grants.[22]

Legislative Action in the 115th Congress

The House Financial Services Committee completed markup on June 21, 2017, of seven bills[23] to reform and reauthorize the NFIP. The 21st Century Flood Reform Act (H.R. 2874) came to the House floor under H.Res. 616, and included provisions from the six other bills. H.R. 2874 passed the House on a vote of 237-189 on November 14, 2017. H.R. 2874 would authorize the NFIP until September 30, 2022.

Three bills have been introduced in the Senate that reauthorize the expiring provisions of the NFIP: S. 1313 (Flood Insurance Affordability and Sustainability Act of 2017), S. 1368 (Sustainable, Affordable, Fair, and Efficient [SAFE] National Flood Insurance Program Reauthorization Act of 2017),[24] and S. 1571 (National Flood Insurance Program Reauthorization Act of 2017). None of these bills have yet been considered by the committee of jurisdiction. S. 1313 would authorize the NFIP until September 30, 2027; S. 1368 would authorize the NFIP until September 30, 2023; and S. 1571 would authorize the NFIP until September 30, 2023.

The remainder of this report will summarize relevant background information and proposed changes to selected areas of the NFIP in H.R. 2874, S. 1313, S. 1368, and S. 1571. The report does not examine every provision in detail, but focuses on selected provisions that would introduce significant changes to the NFIP, particularly those related to the issues identified by the Government Accountability Office (GAO) described below.

Potential Issues for Consideration by Congress

In a recent report, GAO examined actions which Congress and FEMA could take to reduce federal fiscal exposure and improve national resilience to floods, and recommended that Congress should consider comprehensive reform covering six areas: (1) outstanding debt; (2) premium rates; (3) affordability; (4) consumer participation; (5) barriers to private sector involvement; and (6) NFIP flood resilience efforts.[25] This report will discuss the areas identified by GAO as well as additional issues which Congress may wish to consider.

As a public insurance program, the goals of the NFIP were originally designed differently from the goals of private-sector companies. As currently authorized, the NFIP also encompasses social

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[21] 42 U.S.C. §4016(a).

[22] See 42 U.S.C. §4104c and 42 U.S.C. §4104d. The FMA program 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. 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, *FY2016 Flood Mitigation Assistance (FMA) Grant Program Fact Sheet*, February 15, 2016, http://www.fema.gov/media-library-data/1455710459301-048a67862580037b30cd640a802a9053/FY16_FMA_Fact_Sheet.pdf.

[23] H.R. 1422, H.R. 1558, H.R. 2246, H.R. 2565, H.R. 2868, and H.R. 2475, plus H.R. 2874.

[24] A similar bill was introduced in the House, H.R. 3285.

[25] GAO, *Flood Insurance: Comprehensive Reform Could Improve Solvency and Enhance Resilience*, GAO-17-425, April 2017, pp. 1-2, https://www.gao.gov/products/GAO-17-425.

goals to provide flood insurance in flood-prone areas to property owners who otherwise would not be able to obtain it, and reduce government's cost after floods.[26] The NFIP also engages in many "non-insurance" activities in the public interest: it disseminates flood risk information through flood maps, requires communities to adopt land use and building code standards in order to participate in the program, potentially reduces the need for other post-flood disaster aid, contributes to community resilience by providing a mechanism to fund rebuilding after a flood, and may protect lending institutions against mortgage defaults due to uninsured losses. The benefits of such tasks are not directly measured in the NFIP's financial results from underwriting flood insurance.[27]

From the inception of the NFIP, the program has been expected to achieve multiple objectives, some of which may conflict with one another

- To ensure reasonable insurance premiums for all;
- To have risk-based premiums that would make people aware of and bear the cost of their floodplain location choices;
- To secure widespread community participation in the NFIP and substantial numbers of insurance policy purchases by property owners; and
- To earn premium and fee income that, over time, covers claims paid and program expenses.[28]

NFIP Issues For Consideration by Congress Discussed in This Report

"NFIP Debt and Solvency of the Program"

"Premium Subsidies and Cross-Subsidies"

"NFIP Borrowing from Treasury"

"Affordability of Flood Insurance"

"Increasing Participation in the NFIP"

"The Role of Private Insurance in U.S. Flood Coverage"

"Properties with Multiple Losses"

"Non-Insurance Functions of the NFIP"

"Future Flood Losses"

NFIP Debt and Solvency of the Program

GAO noted that competing aspects of the NFIP, notably the desire to keep flood insurance affordable while making the program fiscally solvent, have made it challenging to reform the program. Promoting participation in the program, while at the same time attempting to fund claims payments with the premiums paid by NFIP policyholders, provides a particular challenge.[29] Throughout its history, the NFIP has been asked to set premiums that are

[26] 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)).

[27] American Academy of Actuaries Flood Insurance Work Group, *The National Flood Insurance Program: Challenges and Solutions*, April 2017, p. 79, http://www.actuary.org/files/publications/FloodMonograph.04192017.pdf.

[28] National Research Council of the National Academies, *Affordability of National Flood Insurance Program Premiums: Report 1*, 2015, p. 3, at http://www.nap.edu/catalog/21709/affordability-of-national-flood-insurance-program-premiums-report-1.

[29] GAO, *Flood Insurance: Comprehensive Reform Could Improve Solvency and Enhance Resilience*, GAO-17-425, April 2017, p. 1, https://www.gao.gov/products/GAO-17-425.

simultaneously "risk-based" and "reasonable." Different Administrations and Congresses have placed varied emphases and priorities on those goals for premium setting.[30]

GAO has reported in several studies that NFIP's premium rates do not reflect the full risk of loss because of various legislative requirements, which exacerbates the program's fiscal exposure. GAO also noted in several reports that while Congress has directed FEMA to provide subsidized premium rates for policyholders meeting certain requirements, it has not provided FEMA with funds to offset these subsidies and discounts, which has contributed to FEMA's need to borrow from the U.S. Treasury to pay NFIP claims.[31]

NFIP Premiums and Surcharges

As of January 2018, the written premium on approximately 5 million policies in force was $3.5 billion.[32] The maximum coverage for single-family dwellings (which also includes single-family residential units within a 2-4 family building) is $100,000 for contents and up to $250,000 for buildings coverage. The maximum available coverage limit for other residential buildings is $500,000 for building coverage and $100,000 for contents coverage, and the maximum coverage limit for non-residential business buildings is $500,000 for building coverage and $500,000 for contents coverage.

Included within NFIP premiums are several fees and surcharges mandated by law on flood insurance policies. 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.[33] The amount of the Federal Policy Fee is set by FEMA and can increase or decrease year to year. As of October 2017, the fee is $50 for Standard Flood Insurance Policies (SFIPs), $25 for Preferred Risk Policies (PRPs),[34] and $25 for contents-only policies.[35] 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.[36] By law, FEMA is required to maintain a reserve ratio of 1% of the total loss exposure through the reserve fund assessment.[37] As of February 2018, the amount required for the reserve fund ratio was approximately $12.79 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 February 2018 figures, not less than approximately $959 million each year). The reserve fund assessment has increased from

[30] National Academy of Sciences, *Affordability of National Flood Insurance Program Premiums, Report 1*, Washington, DC, 2015, p. 47, https://www.nap.edu/catalog/21709/affordability-of-national-flood-insurance-program-premiums-report-1.

[31] GAO, *Flood Insurance: Comprehensive Reform Could Improve Solvency and Enhance Resilience*, GAO-17-425, April 2017, p. 17, https://www.gao.gov/products/GAO-17-425.

[32] For full statistics, including breakdown by states, see FEMA's website at https://bsa.nfipstat.fema.gov/reports/1011.htm.

[33] 42 U.S.C. §4014(a)(1)(B)(iii).

[34] A Preferred Risk Policy is a Standard Flood Insurance Policy that offers low-cost coverage to owners and tenants of eligible buildings located in moderate and low-risk flood zones in NFIP communities. See FEMA, *Flood Insurance Manual, Preferred Risk Policy Section*, Revised April 2018, p. PRP 1, at https://www.fema.gov/media-library-data/1523307331106-4cf9726b2eb04c3471a3e9d37a58fa6a/09_prp_508_apr2018.pdf.

[35] See FEMA, *Flood Insurance Manual, Rating Section*, Revised April 2018, p. RATE 16, https://www.fema.gov/media-library-data/1523307287100-4cf9726b2eb04c3471a3e9d37a58fa6a/05_rating_508_apr2018.pdf.

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

[37] 42 U.S.C. §4017a(b).

its original status, in October 2013, of 5% on all Standard Flood Insurance Policies and 0% on Preferred Risk Policies.[38] Since April 2016, FEMA has charged every NFIP policy a reserve fund assessment equal to 15% of the premium.[39] However, FEMA has stated that as long as the NFIP maintains outstanding debt, it would expect that the reserve fund will not reach the required balance, as amounts collected may be periodically transferred to Treasury to reduce the NFIP's debt.[40]

In addition to the reserve fund assessment, all NFIP policies are also assessed a surcharge following the passage of HFIAA.[41] 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.[42] Revenues from the surcharge are deposited into the reserve fund. The HFIAA surcharge is not considered a premium and is currently not included by FEMA when calculating limits on insurance rate increases.[43]

Premium Subsidies and Cross-Subsidies

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,"[44] meaning that the rate is reflective of the true flood risk to the property. However, Congress has directed FEMA *not* to charge actuarial rates for certain categories of properties and to offer discounts to other classes of properties in order to achieve the program's objective that owners of existing properties in flood zones could afford flood insurance. There are three main categories of properties which pay less than full risk-based rates.

Pre-FIRM Subsidy

Pre-FIRM properties are those which were built or substantially improved before December 31, 1974, or before FEMA published the first Flood Insurance Rate Map (FIRM) for their community, whichever was later.[45] 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 pre-funding their recovery from a flood disaster instead of relying solely on federal disaster assistance. In essence, the flood insurance could distribute some the financial burden among those protected by flood insurance and the public.

[38] For additional information on the reserve fund, see FEMA, *Quarterly NFIP Reserve Fund Report*, June 15, 2016.

[39] See Federal Emergency Management Agency, *Flood Insurance Manual, Rating Section*, Revised April 2018, p. RATE 16, at https://www.fema.gov/media-library-data/1523307287100-4cf9726b2eb04c3471a3e9d37a58fa6a/05_rating_508_apr2018.pdf.

[40] GAO, High-Risk Series 2017: Progress on Many High-Risk Areas, While Substantial Efforts Needed on Others, GAO-17-317, February 2017, p. 622, http://www.gao.gov/products/GAO-17-317.

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

[42] For a description of 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.

[43] See FEMA, *NFIP Fact Sheet: The HFIAA Surcharge*, April 2015, https://www.fema.gov/media-library/assets/documents/105569.

[44] 42 U.S.C. §4014(a)(1).

[45] 42 U.S.C. §4015(c).

BW-12 phased out almost all subsidized insurance premiums, requiring FEMA to increase rates on certain subsidized properties at 25% per year until full-risk rates[46] were reached: these included secondary residences, businesses, severe repetitive loss properties,[47] and properties with substantial cumulative damage.[48] Subsidies were eliminated immediately for properties where the owner let the policy lapse, any prospective insured who refused to accept offers for mitigation assistance, and properties purchased after or not insured by NFIP as of July 6, 2012. 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% per year, after a revised or updated FIRM was issued for the area containing the property.[49] Thus the subsidies on pre-FIRM properties would have been eliminated within five years following the issuance of a new FIRM to a community. As BW-12 went into effect, constituents from multiple communities expressed concerns about the elimination of lower rate classes, arguing that it created a financial burden on policyholders, risked depressing home values, and could lead to a reduction in the number of NFIP policies purchased.[50] Concerns over the rate increases created by BW-12 led to the passage of HFIAA, which reinstated certain premium discounts and slowed down some of the BW-12 premium rate increases.[51] HFIAA repealed the property-sale trigger for an automatic full-risk rate and slowed the rate of phaseout of the pre-FIRM subsidy for most primary residences, allowing for a minimum and maximum increase in the amount for the phaseout of pre-FIRM subsidies for all primary residences of 5%-18% annually.[52] HFIAA retained the 25% annual phaseout of the subsidy from BW-12 for all other categories of properties.[53] As of September 2016, approximately 16.1% of NFIP policies received a pre-FIRM subsidy.[54] 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.[55]

[46] FEMA defines full-risk rates as those charged to a class of policies that generate premiums sufficient to pay the group's anticipated losses and expenses. See GAO, *Flood Insurance: Comprehensive Reform Could Improve Solvency and Enhance Resilience*, GAO-17-425, April 2017, p. 6, https://www.gao.gov/products/GAO-17-425.

[47] 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).

[48] A property with substantial cumulative damage is 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).

[49] Section 100207 of P.L. 112-141. 126 Stat. 919.

[50] National Research Council of the National Academies, *Affordability of National Flood Insurance Program Premiums: Report 1*, 2015, p. 2, at http://www.nap.edu/catalog/21709/affordability-of-national-flood-insurance-program-premiums-report-1.

[51] For a full comparison of changes in pre-FIRM subsidies under BW-12 and HFIAA, see Table 4 in CRS Report R44593, *Introduction to the National Flood Insurance Program (NFIP)*, by Diane P. Horn and Jared T. Brown.

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

[53] For a comparison of subsidy phaseouts in BW-12 and HFIAA, see CRS Report R44593, *Introduction to the National Flood Insurance Program (NFIP)*, by Diane P. Horn and Jared T. Brown.

[54] Email correspondence from FEMA Congressional Affairs staff, March 3, 2017.

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

Newly Mapped Subsidy

HFIAA established a new subsidy[56] for properties that are newly mapped into a Special Flood Hazard Area (SFHA)[57] on or after April 1, 2015, if the applicant obtains coverage that is effective within 12 months of the map revision date. Certain properties may be excluded based on their loss history.[58] The rate for eligible newly mapped properties is equal to the PRP rate, but with a higher Federal Policy Fee,[59] for the first 12 months following the map revision. After the first year, the newly mapped rate begins to 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.[60] As of September 2016, about 3.9% of NFIP policies receive a newly mapped subsidy.[61]

Grandfathering

Using the authority to set rate classes for the NFIP and to offer lower than actuarial premiums,[62] FEMA allows owners of properties that were built in compliance with the FIRM in effect at the time of construction 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," "administrative grandfathering," or the "grandfather rule" and is separate and distinct from the pre-FIRM subsidy.[63] 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 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.

Congress implicitly eliminated the practice of offering grandfathering to policyholders after new maps were issued in BW-12, but then subsequently reinstated the practice in HFIAA, which repealed the BW-12 provision that terminated grandfathering and allowed grandfathered status to be passed on to the new owners when a property is sold.[64] FEMA does not have a definitive estimate on the number of properties that have a grandfathered rate in the NFIP, though data are

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

[57] A Special Flood Hazard Area (SFHA) is defined by FEMA as an area with a 1% or greater risk of flooding every year.

[58] For properties which are excluded from, or ineligible for, the newly mapped subsidy, see FEMA, *Flood Insurance Manual, Newly Mapped Section,* Revised April 2018, pp. NM 1 and NM 2, at https://www.fema.gov/media-library-data/1523307347793-4cf9726b2eb04c3471a3e9d37a58fa6a/10_newly_mapped_508_apr2018.pdf.

[59] The FRP for a newly mapped property is $50, where the FPF for PRP is $25. See FEMA, *Flood Insurance Manual, Rating Section*, Revised April 2018, p. RATE 16, at https://www.fema.gov/media-library-data/1523307287100-4cf9726b2eb04c3471a3e9d37a58fa6a/05_rating_508_apr2018.pdf.

[60] FEMA, Attachment A: Summary of the NFIP Program Changes Effective April 1, 2018, at https://nfip-iservice.com/Stakeholder/pdf/bulletin/ATTACHMENT%20A%20-%20Summary%20of%20the%20NFIP%20April%202018%20and%20January%202019%20Program%20Changes%20final.pdf.

[61] Email correspondence from FEMA Congressional Affairs staff, March 3, 2017.

[62] 42 U.S.C. §4013(a).

[63] For a full description, see FEMA, *NFIP Grandfathering Rules for Agents*, March 2015, at https://www.fema.gov/media-library-data/1488482596393-dcc52e6c120c9327dcd75f1c08e802e4/GrandfatheringForAgents_03_2016.pdf.

[64] 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 shall be 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.

being collected to fulfill a separate mandate of HFIAA.[65] 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.[66]

Summary

The current categories of properties which pay less than the full risk-based rate are determined by the date when the structure was built relative to the date of adoption of the FIRM, rather than the flood risk or the ability of the policyholder to pay. Other ways of reforming the premium structure to reflect full risk-based rates could address a number of the policy goals identified by GAO. For example, actuarially sound rates could place the NFIP on a more financially sustainable path, risk-based price signals could give policyholders a clearer understanding of their true flood risk, and a reformed rate structure could encourage more private insurers to enter the market. However, charging actuarially sound premiums may mean that insurance for some properties is considered unaffordable, or that premiums increase at a rate which may be considered to be politically unacceptable.

Provisions Related to Premiums and Surcharges in H.R. 2874

- Section 102 would phase out the pre-FIRM subsidy for primary residences at a rate of 6.5%-15% (compared to the current rate of 5%-18%), except that in the first year after enactment, the minimum rate increase would be 5%; in the second year after enactment, the minimum rate increase would be 5.5%; and in the third year of enactment, the minimum rate increase would be 6%. The phaseout of the pre-FIRM subsidy for other categories of properties (non-primary residences, non-residential properties, severe repetitive loss properties, properties with substantial cumulative damage, and properties with substantial damage or improvement after July 6, 2012) would remain at 25%. This section would make it possible, but not certain, for FEMA to raise premiums more rapidly than under current legislation by increasing the minimum rate at which the pre-FIRM subsidy could be removed for primary residences.
- Section 105 would require FEMA, not later than two years after enactment, to calculate premium rates based on a consideration of the differences in flood risk resulting from coastal flood hazards and riverine, or inland flood hazards. Six months prior to the effective date of risk premium rates, FEMA would be required to publish in the *Federal Register* an explanation of the bases for, and methodology used to determine, the chargeable premium rates to be effective for flood insurance coverage under this title. Certain aspects of coastal flood risk are already incorporated into NFIP rates, notably risk from wave action (known as the "V" zone); how this may change with this possible new requirement is not yet known.

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[65] 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.

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

- Section 111 would require FEMA to conduct a study to evaluate insurance industry best practice and develop a feasible implementation plan and projected timeline for including the replacement cost value of a structure in setting NFIP premium rates. FEMA would be required to begin gradually phasing in the use of replacement cost value in setting NFIP premium rates 12 months after enactment, with replacement cost value to be used in setting all NFIP premium rates by December 31, 2020. If this provision were enacted, it is anticipated that those structures with higher replacement costs than current local or national averages would begin paying more for their NFIP coverage than those structures that are below the average, which would pay less. How much more, or how much less, is uncertain.
- Section 112 would cap the premiums for 1-4 unit residential properties with elevation data meeting FEMA's standards at $10,000 per year, adjusted for inflation every five years. There is currently no statutory cap on premiums. This cap could affect approximately 800 properties, or 0.02% of NIFP policies,[67] though that figure is subject to considerable change (likely increasing) as premium rates change in the future.
- Section 301 would require FEMA, not later than three years from enactment, to calculate premium rates based on both the risk identified by the applicable FIRMs and by other risk assessment data and tools, including risk assessment models and scores from appropriate sources. This provision would expand on the existing method of determining rates (the FIRM) and allow alternatives, such as a risk score methodology (for example, a scale of 1 to 10 or 1 to 100, where the premiums would increase with the numerical score). Until FEMA develops these new risk assessment tools, it is not possible to say how this would affect premiums.
- Section 502 would increase the HFIAA surcharge from $25 to $40 for primary residences and from $250 to $275 for non-residential properties and most non-primary residences. However, the HFIAA surcharge for non-primary residences which are eligible for a Preferred Risk Policy would drop from $250 to $125. This provision would increase the amount that most policyholders pay for flood insurance. FEMA does not include the HFIAA surcharge in their calculation of premium rate increases,[68] so this increase would not be affected by the cap set out in Section 102.
- Section 503 would require FEMA, beginning in FY2018, to place in the reserve fund an amount equal to not less than 7.5% of the required reserve ratio. If in any given year FEMA does not do so, for the following fiscal year the Administrator would be required to increase the reserve fund assessment by at least one percentage point over the rate of the annual assessment (i.e., from the current 15% to 16%), and to continue such increases until the fiscal year in which the statutory reserve ratio is achieved. This provision would likely increase premiums for all NFIP policyholders.[69]

[67] Congressional Budget Office, Cost Estimate for H.R. 2868, National Flood Insurance Program Policyholder Protection Act of 2017, at https://www.cbo.gov/publication/52881.

[68] FEMA, Summary of the NFIP April 2018 and January 2019 Program Changes, September 27, 2017, at https://nfip-iservice.com/Stakeholder/pdf/bulletin/w-17061.html.

[69] For example, on March 31, 2018, FIMA had $446 million available in the reserve fund, significantly less than the

Provisions Related to Premiums and Surcharges in Senate Bills

- S. 1313, Section 207, would require FEMA to conduct a study to evaluate insurance industry best practice and develop a feasible implementation plan and projected timeline for including the replacement cost value of structures in setting NFIP premium rates. FEMA would be required to begin gradually phasing in the use of replacement cost value in setting NFIP premium rates 12 months after enactment, with replacement cost value to be used in setting all NFIP premium rates four years after enactment.
- S. 1313, Section 209, would establish a baseline amount that tracks the Federal National Mortgage Association (Fannie Mae) maximum loan limits for single-family dwellings.[70] This section would set the contents coverage limits at 50% of the baseline amount. The coverage limit for single-family dwellings would be set at the baseline amount and the coverage limit for other residential and non-residential properties at 200% of the baseline amount. As the Fannie Mae loan limit increases, the NFIP building coverage limits would also increase.
- S. 1368, Section 102, would prohibit FEMA from increasing the amount of covered costs above 10% per year on any policyholder during the six-year period beginning on the date of enactment. Covered costs include premiums, surcharges (including the surcharge for Increased Cost of Compliance coverage[71] and the HFIAA surcharge), and the Federal Policy Fee. This would limit the rate of increase of covered costs for all categories of policies, not just policies for primary residences, and would be particularly significant for those policies where the pre-FIRM subsidy is currently being phased out at 25% per year. This section would also amend the basis on which premiums are calculated so that an average historical loss year[72] would exclude catastrophic loss years. This would probably lower premiums for all policyholders.
- S. 1368, Section 104, would raise the building coverage limits to $500,000 for single-family dwellings and $1,500,000 for non-residential buildings.
- S. 1571, Section 301, would require FEMA to conduct a study to evaluate insurance industry best practices and develop a feasible implementation plan and projected timeline for including the replacement cost value in setting NFIP

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required reserve ratio of $959 million. Data provided in email correspondence from FEMA Congressional Affairs Staff, April 20, 2018.

[70] The Federal National Mortgage Association loan limits for conventional mortgages for 2018 are available at https://www.fanniemae.com/singlefamily/loan-limits. For most locations, the single-family loan limit in 2018 is $453,100; for high-cost areas, the single-family loan limit is $679,650.

[71] See the "Increased Cost of Compliance (ICC) Coverage " section of this report.

[72] The average historical loss year is the minimum target amount that the NFIP needs to collect from all premiums to cover at least average annual losses, as determined by historical data. FEMA uses this estimate to calculate the premium that would be sufficient to pay for the average level of losses that occurred in past years and help set the rate level for subsidized flood insurance policies. When the NFIP was originally established, the average historical loss year did not include catastrophic loss years. BW-12 directed FEMA to review the basis on which it was setting NFIP rates, with specific attention to ensuring that catastrophic loss years would be fully incorporated into the NFIP calculation of average historical loss year. See GAO, *Financial Challenges Underscore Need for Improved Oversight of Mitigation Programs and Key Contracts*, GAO-08-457, June 16, 2008, p. 19, http://www.crs.gov/reports/IN10835?source=HPinsight; and National Research Council of the National Academies, *Affordability of National Flood Insurance Program Premiums: Report 1*, 2015, p. 42, http://www.nap.edu/catalog/21709/affordability-of-national-flood-insurance-program-premiums-report-1.

premium rates. FEMA would be required to submit a report not later than 18 months after enactment, and implement the recommendations one year after submitting the report.

NFIP Borrowing from Treasury

The NFIP was not designed to retain funding to cover claims for truly extreme events; instead, the statute allows the program to borrow money from the Treasury for such events.[73] For most of the NFIP's history, the program has 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.[74] However, Congress increased the level of NFIP borrowing to pay claims in the aftermath of the 2005 hurricane season (particularly Hurricanes Katrina, Rita and Wilma), increasing the borrowing limit to $18.5 billion in 2005,[75] and increasing the borrowing limit again in 2006 to $20.775 billion.[76] Following Hurricane Sandy, Congress increased the borrowing limit of the NFIP to the current $30.425 billion.[77] In January 2017, the NFIP borrowed $1.6 billion due to losses in 2016 (the August 2016 Louisiana floods and Hurricane Matthew).[78] On September 22, 2017, the NFIP borrowed the remaining $5.825 billion from the Treasury to cover claims from Hurricane Harvey, reaching the NFIP's authorized borrowing limit of $30.425 billion.[79] 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.[80] 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.[81]

If there were to be a lapse in authorization on or after November 30, 2018, and the borrowing authority is reduced to $1 billion, FEMA would continue to adjust and pay claims as premium dollars come into the National Flood Insurance Fund (NFIF)[82] and reserve fund. If the funds available to pay claims in the NFIF and the reserve fund were to be depleted, claims would have to wait until sufficient premium dollars were received to pay them unless Congress were to appropriate supplemental funds to the NFIP to pay claims or increase the borrowing limit. In the event that Congress does not provide funding to cover unpaid claims, policyholders might avail themselves of judicial remedies to recover these funds from the U.S. Treasury.[83]

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.[84] Under its current authorization, the only means

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[73] 42 U.S.C. §4106(a).

[74] GAO, High-Risk Series 2017: Progress on Many High-Risk Areas, While Substantial Efforts Needed on Others, GAO-17-317, February 2017, p. 619, http://www.gao.gov/products/GAO-17-317.

[75] P.L. 109-106, §2, 119 Stat. 2228.

[76] P.L. 109-208, §2, 120 Stat. 317.

[77] P.L. 113-1, §1(a), 127 Stat. 3.

[78] Email correspondence from FEMA Congressional Affairs Staff, January 17, 2017.

[79] Email correspondence from FEMA Congressional Affairs Staff, September 22, 2017.

[80] P.L. 115-72, Title III, §308.

[81] Email correspondence from FEMA Congressional Affairs Staff, January 4, 2018.

[82] 42 U.S.C. §4017.

[83] Email correspondence from FEMA Congressional Affairs staff, May 2, 2017.

[84] For current details of the NFIP's premium revenues and claims/loss data, see FEMA's website for policy and claim

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 reserve fund. For example, since the NFIP borrowed funds following the 2005 hurricane season, 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.[85] In a recent report, GAO noted that charging current policyholders to pay for debt incurred in past years is contrary to actuarial principles and insurers' pricing practices; according to actuarial principles, a premium rate is based on the risk of future losses and does not include past costs.[86] GAO also argued that this creates a potential inequality because policyholders are charged not only for the flood losses that they are expected to incur, but also for losses incurred by past policyholders.[87]

The cancellation of $16 billion of NFIP debt in October 2017 represents the first time that NFIP debt has been cancelled, although Congress appropriated funds between 1980 and 1985 to repay NFIP debt.[88] Earlier in 2017, GAO had considered the option of eliminating FEMA's debt to the Treasury, suggesting that if the debt were eliminated, FEMA could reallocate funds used for debt repayment for other purposes such as building a reserve fund and program operations, and arguing that this would also be more equitable for current policyholders and consistent with actuarial principles.[89] Eliminating the entire NFIP debt would require Congress to cancel debt outright, to appropriate funds for FEMA to repay the debt, or to change the law[90] to eliminate the requirement that FEMA repay the accumulated debt.

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. As required by law,[91] 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. This report indicated that in most realistic scenarios, the debt would not be paid off for at least 20 years, and that period could increase considerably with future catastrophic incidents.[92] FEMA estimated in March 2017 that the NFIP's $24.6 billion debt would require annual interest-only payments of nearly $400 million, noting that if interest rates were to rise, these payments would increase significantly and FEMA might not be able to retire any of its debt, even in low loss years.[93] 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.[94] Also in April 2017, the Congressional Budget Office (CBO) projected that

statistics at https://www.fema.gov/policy-claim-statistics-flood-insurance.

85 Update on the National Flood Insurance Program's Borrowing Authority, Email correspondence from FEMA Congressional Affairs Staff, November 20, 2017.

86 GAO, *Flood Insurance: Comprehensive Reform Could Improve Solvency and Enhance Resilience*, GAO-17-425, April 2017, p. 16, https://www.gao.gov/products/GAO-17-425.

87 Ibid.

88 Funds for "repayment under notes" were appropriated in P.L. 996-526, 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. These appropriations cumulatively repaid $1,313,227,000.

89 GAO, *Flood Insurance: Comprehensive Reform Could Improve Solvency and Enhance Resilience*, GAO-17-425, April 2017, p. 16, https://www.gao.gov/products/GAO-17-425.

90 42 U.S.C. §4016.

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

92 See FEMA, *Semi-Annual NFIP Debt Repayment Progress Report*, October 2015, p. 9.

93 GAO, *Flood Insurance: Comprehensive Reform Could Improve Solvency and Enhance Resilience*, GAO-17-425, April 2017, p. 15, https://www.gao.gov/products/GAO-17-425.

94 Email correspondence from FEMA Congressional Affairs Staff, April 5, 2017. The revised assumptions used in

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 borrowing authority to pay those expected claims.[95] Although the debt cancellation means that the 2017 hurricane season will probably not require an increase in the borrowing limit, the NFIP will have a debt very similar to the debt after the 2005 hurricane season. Since 2005, the program has devoted more resources to interest payments than to repaying the debt, and it seems unlikely that this would be different in the future without congressional action.

Provisions Related to NFIP Debt in Senate Bills

- S. 1368, Section 301, would freeze interest accrual on the NFIP's debt to the Treasury for six years after enactment. This would make it possible for the NFIP to spend saved amounts from foregone interest payments for a variety of other purposes.

Affordability of Flood Insurance

Some stakeholders have expressed concern related to the perceived affordability of flood insurance premiums and the balance between actuarial soundness and other goals of the NFIP.[96] Particularly following the increase in premiums associated with BW-12 and HFIAA, concerns were raised that risk-based premiums could be unaffordable for some households. Section 100236 of BW-12 called for an affordability study by FEMA and also a study by the National Research Council of the National Academy of Sciences (NRC) regarding participation in the NFIP and the affordability of premiums. In HFIAA Section 9, Congress also required FEMA to develop a Draft Affordability Framework "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…."[97] FEMA published their Affordability Framework on April 17, 2018.[98]

The NRC report was published in two parts.[99] The first NRC report considered the many ways in which to define affordability and identify which households need financial assistance with premiums. They noted that there are no objective definitions of affordability for flood insurance, nor is there an objective threshold that separates affordable premiums from unaffordable premiums and thus defines affordability either for an individual property owner or renter, or for any group of property owners or renters.[100] They suggested that if affordability were to be

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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.

[95] Congressional Budget Office (CBO) *Preliminary Results from CBO's Analysis of the National Flood Insurance Program*, at https://www.cbo.gov/publication/52638. Note that this projection was before the 2017 hurricane season.

[96] National Research Council of the National Academies, *Affordability of National Flood Insurance Program Premiums: Report 1*, 2015, p. 2, http://www.nap.edu/catalog/21709/affordability-of-national-flood-insurance-program-premiums-report-1.

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

[98] FEMA, *An Affordability Framework for the National Flood Insurance Program*, 2018.

[99] See National Research Council of the National Academies, *Affordability of National Flood Insurance Program Premiums: Report 1*, 2015, http://www.nap.edu/catalog/21709/affordability-of-national-flood-insurance-program-premiums-report-1; and National Research Council of the National Academies, *Affordability of National Flood Insurance Program Premiums: Report 2*, 2016, http://www.nap.edu/catalog/21848/affordability-of-national-flood-insurance-program-premiums-report-2.

[100] National Research Council of the National Academies, *Affordability of National Flood Insurance Program*

addressed through some form of government assistance, a number of questions would need to be answered by Congress or FEMA: (1) Who will receive assistance? (2) What assistance will be provided? (3) How will assistance be provided? (4) How much assistance will be provided? (5) Who will pay for the assistance? (6) How will assistance be administered?[101]

The NRC report suggested that eligibility for assistance could be based on (1) being cost-burdened by flood insurance, (2) the loss of pre-FIRM subsidies or grandfathered cross-subsidies, (3) the requirement to purchase flood insurance, (4) housing tenure, (5) household income, (6) mitigation, or (7) community characteristics.[102] The first NRC report identified potential policy measures that might reduce the burden of premium payments, or that might direct mitigation assistance towards households that qualify for assistance, such as means-tested mitigation grants, mitigation loans, means-tested vouchers, federal tax deductions and credits, disaster savings account, expanding the variety of individual mitigation measures that reduce premiums, encouraging the selection of higher premium deductibles, reducing NFIP administrative cost loadings in premiums, eliminating the mandatory purchase requirement, or relying on the Treasury to help pay claims in catastrophic loss years.[103] The report concluded that policymakers will need to decide whether they want to define cost burden with reference to income, housing costs in relation to income, premium paid in relation to property value, or some other measure.[104]

GAO also considered the issue of affordability, suggesting that an affordability program that addresses the goals of encouraging consumer participation and promoting resilience would provide means-tested assistance through appropriations rather than through discounted premiums, and prioritize it to mitigate risk. They argued that providing premium assistance through appropriations rather than discounted premiums would address the policy goal of making the fiscal exposure more transparent because any affordability discounts on premium rates would be explicitly recognized in the budget each year.[105] GAO suggested that linking subsidies to ability to pay rather than the existing approach to subsidies would make premium assistance more transparent and thus more open to oversight by Congress and the public. They also argued that means-testing premium assistance would help ensure that only those who could not afford full-risk rates would receive assistance, which could lower the number of policyholders receiving a subsidy and thus increase the amount that the NFIP receives in premiums and reduce the program's federal fiscal exposure. GAO estimated that 47%-74% of policyholders could be eligible for subsidy if income eligibility was set at 80% or 140% of area median income, respectively.[106] GAO also suggested that instead of premium assistance, it would be preferable to address affordability by providing assistance for mitigation measures that would reduce the flood risk of the property, thus enhancing resilience, and ultimately result in a lower premium rate.

Premiums: Report 1, 2015, p. 80, http://www.nap.edu/catalog/21709/affordability-of-national-flood-insurance-program-premiums-report-1.

[101] Ibid., pp. 83-84.

[102] Ibid., pp. 85-90.

[103] National Research Council of the National Academies, *Affordability of National Flood Insurance Program Premiums: Report 1*, 2015, pp. 99-107, http://www.nap.edu/catalog/21709/affordability-of-national-flood-insurance-program-premiums-report-1.

[104] National Research Council of the National Academies, *Affordability of National Flood Insurance Program Premiums: Report 2*, 2016, p. 10, http://www.nap.edu/catalog/21848/affordability-of-national-flood-insurance-program-premiums-report-2.

[105] GAO, *Flood Insurance: Comprehensive Reform Could Improve Solvency and Enhance Resilience*, GAO-17-425, April 2017, p. 27, https://www.gao.gov/products/GAO-17-425.

[106] GAO, *National Flood Insurance Program: Options for Providing Affordability Assistance*, GAO-16-190, February 10, 2016, p. 22, http://www.gao.gov/assets/680/675132.pdf.

Reducing flood risk through mitigation could also reduce the need for federal disaster assistance, further decreasing federal fiscal exposure.[107]

Another approach to making premiums affordable, at least for policyholders in the relevant communities, would be to introduce policies to increase the number of communities participating in the Community Rating System (CRS) or to encourage communities already participating in the CRS to improve their rating. The CRS is a program offered by FEMA to incentivize the reduction of flood and erosion risk, as well as the adoption of more effective measures to protect natural and beneficial floodplain functions.[108] FEMA awards points that increase a community's "class" rating in the CRS. Policyholders in the SFHA within a CRS community receive a 5%-45% discount on their SFIP premiums, depending on their community's rating. 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.[109] Although the CRS discount reduces flood insurance premiums for individual communities, 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. For example, the average 11.4% discount for CRS communities in April 2014 was cross-subsidized and shared across NFIP communities through a cost (or load) increase of 13.4% to overall premiums.[110]

FEMA does not currently have the authority to implement an affordability program, nor does FEMA's current rate structure provide the funding required to support an affordability program. If an affordability program were to be funded from NFIP funds, this would require either raising flood insurance rates for NFIP policyholders or diverting resources from another existing use. Alternatively, an affordability program could be funded fully or partially by congressional appropriation.

Provisions Related to Affordability in H.R. 2874

- Section 103 would authorize a state or a consortium of states to create a voluntary flood insurance affordability program for owner-occupants of 1-4 unit residences in communities participating in the NFIP. Eligibility would be determined by the state, but the affordability program would not be available to a household with income that exceeds the greater of (i) the amount equal to 150% of the poverty level for each state, or (ii) the amount equal to 60% of the median income of households residing in the state. Assistance could be only in the form of either establishing a limit on the amount of chargeable risk premium paid or limiting the rate of increase in the amount of chargeable premiums. The state affordability program would be funded through a surcharge on each policy within that state that is not eligible to participate in the affordability program. Because this approach to affordability would be funded by other NFIP policyholders, it would create a new cross-subsidy within the NFIP for any states that develop an

[107] GAO, *Flood Insurance: Comprehensive Reform Could Improve Solvency and Enhance Resilience*, GAO-17-425, April 2017, p. 25, https://www.gao.gov/products/GAO-17-425.

[108] 42 U.S.C. §4022(b)(1).

[109] 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.

[110] A more recent average Community Rating System 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.

affordability program. Because the affordability assistance is limited to single-family owner-occupiers, this surcharge could potentially be levied on policyholders with equally low, or lower incomes, who are renters with contents-only policies, or owner-occupiers who live in multiunit buildings.

Provisions Related to Affordability in Senate Bills

- S. 1313, Section 208, would provide affordability vouchers for owner-occupied households with NFIP policies in SFHAs with income less than 165% of area median income and for which the cost of flood insurance premiums, surcharges, and fees would result in excess costs for that year. Excess costs are defined as when the sum of the total amount of NFIP premiums, surcharges and fees plus the annual housing expenses exceed 40% of the total household income for the year. The voucher would offset excess costs and would be used towards payment of flood insurance premiums, surcharges, and fees. Policyholders with household incomes below 80% of the area median income would receive a voucher for 100% of the excess costs. Policyholders with household incomes of 81%-120% of area median income would receive vouchers for 80% of excess costs, and policyholders with household incomes of 121%-165% of area median income would receive vouchers for 60% of excess costs. It is unclear how these vouchers would be funded.
- S. 1368, Section 103, would require FEMA to establish an Affordability Assistance Fund which would be separate from other NFIP funds and available without fiscal year limitation. This Affordability Assistance Fund would be credited with the income from the HFIAA surcharge. Section 103 would require FEMA to offer zero or low-interest loans to fund mitigation projects by homeowners, and would also require FEMA to provide financial assistance in the form of a voucher, grant, or premium credit to an eligible household, defined as one where housing costs exceed 30% of the household's adjusted gross income for the year and the total assets owned by the household are not greater than $1 million. The voucher, grant or premium credit would provide an amount equal to the lesser of the difference between either the annual housing expenses or 30% of the annual adjusted gross income of the household and the costs of NFIP premiums plus principal and interest payments for a loan provided under this section.

Increasing Participation in the NFIP

A long-standing objective of the NFIP has been to increase purchases of flood insurance policies, and this objective of widespread NFIP purchase was one motivation for keeping NFIP premiums reasonable[111] and for later introducing the requirement to purchase flood insurance as a condition of receiving a federally backed mortgage for properties in a SFHA, commonly referred to as the mandatory purchase requirement. Early in the program, the federal government found that making insurance available, even at subsidized rates, did not provide sufficient incentive for communities to join the NFIP or for individuals to purchase flood insurance. In response,

[111] See 82 Stat. 577 for text in the original statute (Section 1308(b)(2) of P.L. 90-448). This language remains in statute; (see 42 U.S.C. §4015(b)(2)).

Congress passed the Flood Disaster Protection Act of 1973,[112] which required the purchase of flood insurance and placed the responsibility for ensuring compliance on lending institutions. This mandatory purchase requirement was later strengthened by the National Flood Insurance Reform Act of 1994.[113]

In a community that participates or has participated in the NFIP, owners of properties in the mapped SFHA 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 (GSE)[114] must require these property owners to purchase flood insurance as a condition of any mortgage that these entities make, guarantee, or purchase.[115] However, there are no official statistics available from the federal mortgage regulators responsible for compliance with the mandate, and no up-to-date data on national compliance rates with the mandatory purchase requirement. 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).[116] A more recent study of flood insurance in New York City found that compliance with the mandatory purchase requirement by properties in the SFHA with mortgages increased from 61% in 2012 to 73% in 2016.[117] The escrowing of insurance premiums, which began in January 2016, may increase compliance with the mandatory purchase requirement more widely, but no data are yet available.

Both the GAO and the NFIP report to Congress on options for privatizing the NFIP[118] suggested that the mandatory purchase requirement could potentially be expanded to more (or all) mortgage loans made by federally regulated lending institutions for properties in communities participating in the NFIP. This would increase the consumer participation rate in the NFIP and potentially balance the NFIP portfolio with an increased number of lower risk properties.[119] According to GAO, some private insurers have indicated that a federal mandate could help achieve the level of consumer participation necessary to make the private sector comfortable with providing flood insurance coverage by increasing the number of policyholders, which would allow private insurers to diversify and manage the risk of their flood insurance portfolio and address concerns

[112] P.L. 93-234, 87 Stat. 985.

[113] P.L. 103-325, 108 Stat. 2257.

[114] Government-Sponsored Enterprises (GSEs) are private companies with congressional charters. Examples of GSEs providing mortgages which would be affected by the mandatory purchase requirement include the Federal Home Loan Mortgage Corporation (Freddie Mac) and the Federal National Mortgage Association (Fannie Mae).

[115] 42 U.S.C. §4012a.

[116] 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, https://www.fema.gov/media-library-data/20130726-1602-20490-2804/nfip_eval_market_penetration_rate.pdf.

[117] Lloyd Dixon, Noreen Clancy, and Benjamin M. Miller, et al., *The Cost and Affordability of Flood Insurance in New York City: Economic Impacts of Rising Premiums and Policy Options for One- to Four- Family Homes*, Rand Corporation, RAND RR1776, Santa Monica, CA, April 2017, pp. 15-18, https://www.rand.org/pubs/research_reports/RR1776.html.

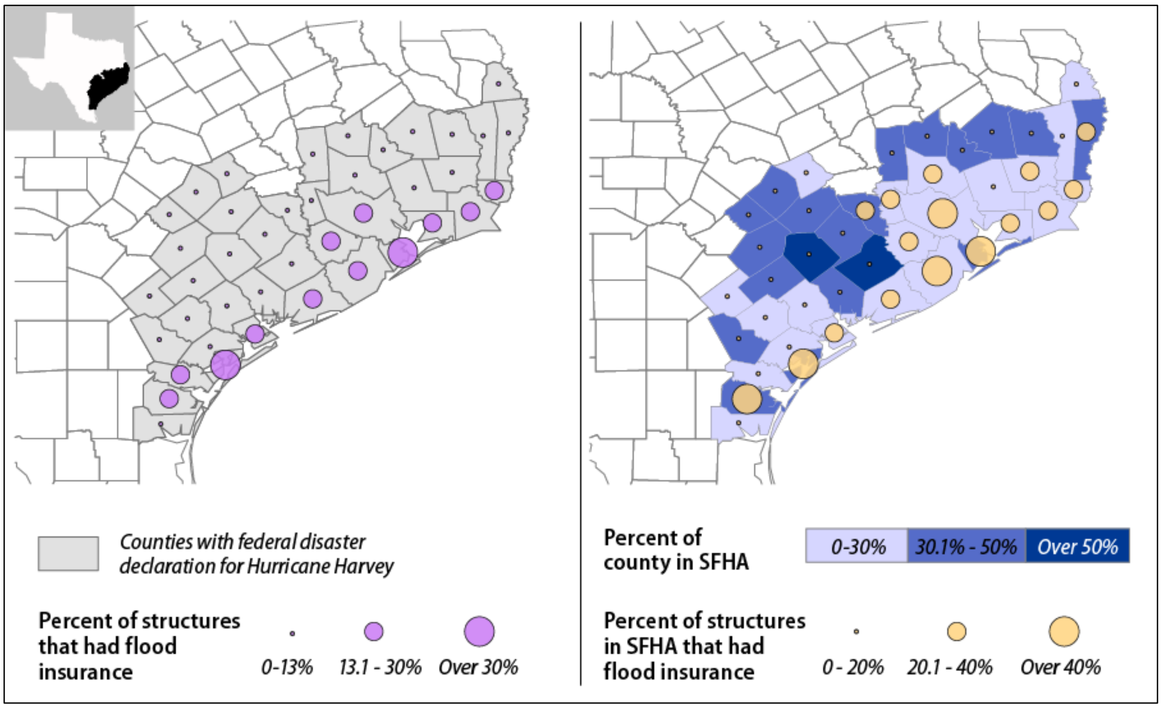
[118] National Flood Insurance Program, *Report to Congress on Reinsuring NFIP Insurance Risk and Options for Privatizing the NFIP*, Appendix C: Flood Insurance Risk Study: Options for Privatizing the NFIP, August 13, 2015, p. 86, https://www.floods.org/ace-files/documentlibrary/2012_NFIP_Reform/Reinsuring_NFIP_Insurance_Risk_and_Options_for_Privatizing_the_NFIP_Report.pdf.

[119] GAO, *Flood Insurance: Comprehensive Reform Could Improve Solvency and Enhance Resilience*, GAO-17-425, April 2017, p. 29 and p. 33, https://www.gao.gov/products/GAO-17-425.

about adverse selection.[120] The Association of State Floodplain Managers also suggested that all properties within the SFHA should be required to have flood insurance, not just those with federally backed mortgages.[121]

Figure 1. Residential Penetration Rates of NFIP Flood Insurance in Texas

Counties with FEMA Individual Assistance Declarations for Hurricane Harvey (DR-4332)



Source: Data provided by FEMA Congressional Affairs staff, November 6, 2017.

Notes: Left: county-wide penetration rate; right: penetration rate for structures in SFHA.

The flooding caused by the 2017 hurricanes highlighted the issue of low penetration rates[122] of flood insurance. In the counties in Texas with a FEMA Individual Assistance declaration[123] for Hurricane Harvey, the average penetration rate for all 41 counties was 10%, with a 21% penetration rate for structures within the SFHA in those counties. The counties with the highest penetration rate were on the coast (see **Figure 1**): Aransas County (72% penetration in SFHA, 43% penetration county-wide), Nueces County (70% in SFHA, 21% county-wide), and Galveston County (64% in SFHA, 47% county-wide). In the counties in Florida with a FEMA Individual Assistance declaration[124] for Hurricane Irma, the average penetration rate for all 48 counties was

[120] GAO, *Flood Insurance: Strategies for Increasing Private Sector Involvement*, GAO-47-127, January 2014, p. 23, https://www.gao.gov/products/GAO-14-127.

[121] Association of State Floodplain Managers, Inc., *Rethinking the NFIP*, ASFPM Comments on NFIP Reform, January 11, 2011, p. 5, http://www.floods.org/ace-files/documentlibrary/National_Policy/Rethinking_the_NFIP_Comments_from_ASFPM_1-11-11.pdf.

[122] FEMA describes NFIP penetration rates as the proportion of all properties with NFIP flood insurance. See, for example, U.S. Government Accountability Office, *Flood Insurance*, GAO-14-297R, April 9, 2014, p. 6, https://www.gao.gov/assets/670/662438.pdf.

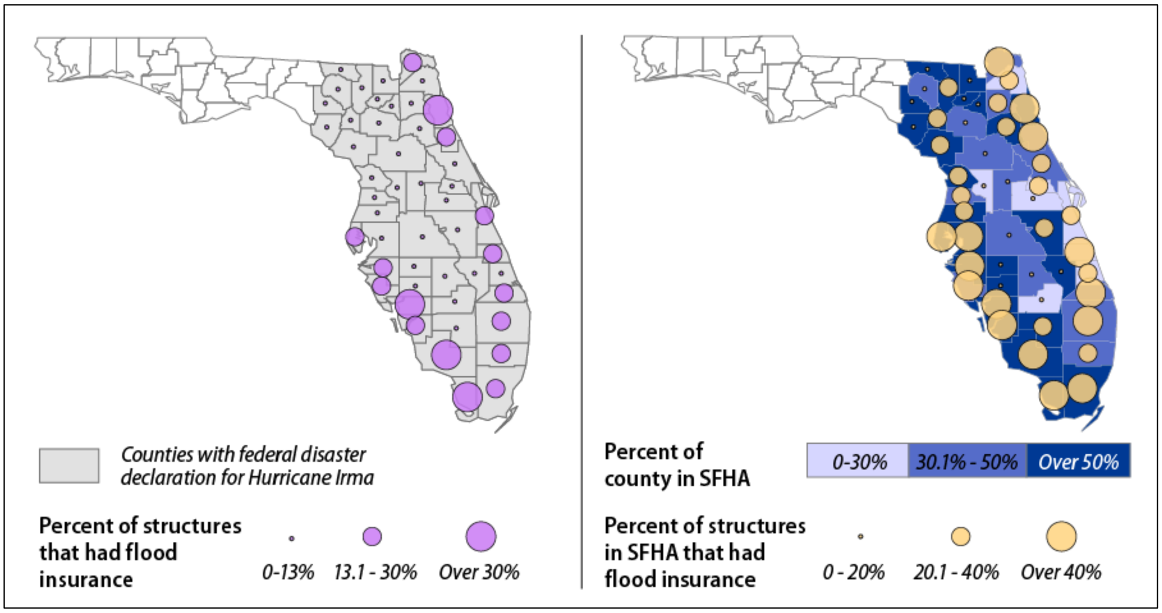
[123] Texas Hurricane Harvey DR-4332, https://www.fema.gov/disaster/4332.

[124] Florida Hurricane Irma DR-4337, https://www.fema.gov/disaster/4337.

12%, with a 31% penetration rate for structures within the SFHA in those counties. The counties with the highest penetration rate (see **Figure 2**) were St. Johns County (73% in SFHA, 35% county-wide), Flagler County (72% in SFHA, 18% county-wide), Nassau County (62% in SFHA, 25% county-wide), and Palm Beach County (62% in SFHA, 22% county-wide). NFIP penetration rates were extremely low in Puerto Rico, with only 4,436 NFIP residential policies at the time Hurricane Maria hit, for an average penetration rate of 0.23%, and in the Virgin Islands, with only 1,412 NFIP policies, for an average penetration rate of 2.5%.[125]

Figure 2. Residential Penetration Rates of NFIP Flood Insurance in Florida

Counties with FEMA Individual Assistance Declarations for Hurricane Irma (DR-4337)



Source: Data for all figures provided by FEMA Congressional Affairs staff, November 6, 2017.

Notes: Left: county-wide penetration rate; right: penetration rate for structures in SFHA.

NFIP policies are not distributed evenly around the country; about 37% of the policies are in Florida, with 11% in Texas and 9% in Louisiana, followed by California with 5% and New Jersey with 4%. These five states account for approximately 66% of all of the policies in the NFIP.[126] NFIP participation rates are higher in coastal locations than in inland locations, and are highest in the most risky areas due to mandatory purchase requirements.[127] The NFIP could potentially be financially improved with a more geographically diverse policy base and, in particular, through finding ways to increase coverage in areas perceived to be at lower risk of flooding than those in the SFHA.

[125] All of the information in this paragraph is Congressional Research Service analysis of data provided by FEMA Congressional Affairs staff, November 3, 2017. Figures were not provided for the Virgin Islands, so the penetration rate was calculated using census data for the number of housing units divided by the 1,412 policies in force (residential and commercial) as of August 31, 2017.

[126] National Research Council of the National Academies, *Affordability of National Flood Insurance Program Premiums: Report 1*, 2015, pp. 86-87, http://www.nap.edu/catalog/21709/affordability-of-national-flood-insurance-program-premiums-report-1.

[127] Ibid.

FEMA has identified the need to increase flood insurance coverage across the nation as a major priority for the current reauthorization and beyond, and has set a goal of doubling flood insurance coverage by 2023, through the increased sale of both NFIP and private policies.[128] Closing the insurance gap is one of the key strategic objectives of FEMA's 2018-2022 strategic plan.[129]

Provisions Related to Increasing NFIP Participation in H.R. 2874

- Section 507 would increase the civil penalties from $2,000 to $5,000 on federally regulated lenders for failure to comply with enforcing the mandatory purchase requirement. In addition, the federal entities for lending regulations, in consultation with FEMA, would be required jointly to update and reissue the guidelines on compliance with mandatory purchase.
- Section 513 would require a report by GAO on the implementation and efficacy of the mandatory purchase requirement within 18 months of enactment.

Provisions Related to Increasing NFIP Participation in Senate Bills

- S. 1313, Section 102, would require FEMA to conduct a study in coordination with the National Association of Insurance Commissioners to address how to increase participation in flood insurance coverage through programmatic and regulatory changes, and report to Congress no later than 18 months after enactment. This study would be required to include but not be limited to options to (1) expand coverage beyond the SFHA to areas of moderate flood risk; (2) automatically enroll customers in flood insurance while providing customers the opportunity to decline enrollment; and (3) create bundled flood insurance coverage that diversifies risk across multiple peril insurance.
- S. 1368, Section 410, would require FEMA to conduct a study and report to Congress within one year of enactment on the percentages of properties with federally backed mortgages located in SFHAs satisfy the mandatory purchase requirement, and the percentage of properties with federally backed mortgages located in the 500-year floodplain that would satisfy the mandatory purchase requirement if the mandatory purchase requirement applied to such properties.
- S. 1571, Section 303, would require the federal banking regulators to conduct an annual study regarding the rate at which persons who are subject to the mandatory purchase requirement are complying with that requirement. Section 303 would also require FEMA to conduct an annual study of participation rates and financial assistance to individuals who live in areas outside SFHAs.

The Role of Private Insurance in U.S. Flood Coverage

One of the reasons that the NFIP was originally created was because private flood insurance was widely unavailable in the United States.[130] Generally, private companies could not profitably

[128] Roy E. Wright, "Setting the Tone: Opening Story and Our Transformation Process," Keynote Remarks: PCI National Flood Conference 2017, Arlington, VA, May 1, 2017, p. 6, https://www.fema.gov/media-library-data/1493727672905-9f2950b534607c3f9ef3e771d28a81e2/PreparedRemarks_Wright_NationalFloodConference_May2017.pdf.

[129] FEMA, *2018-2022 Strategic Plan,* March 2018, p. 15, https://www.fema.gov/media-library/assets/documents/160940.

[130] For a more detailed discussion of private flood insurance, see CRS Report R45242, *Private Flood Insurance and the*

provide flood coverage at a price that consumers could afford, primarily because of the catastrophic nature of flooding and the difficulty of determining accurate rates.[131] Until recently the role of the private market in primary residential flood insurance has been relatively limited. The main role of private insurance companies at the moment is in the operational aspect of the NFIP. FEMA provides the overarching management and oversight of the NFIP, and retains the actual financial risk of paying claims for the policy (i.e., underwrites the policy). However, 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. The arrangement between the NFIP and private industry is authorized by statute and guided by regulation.[132]

There are two different arrangements that FEMA has established with private industry. The first is the Direct Servicing Agent (DSA), which operates as a private contractor on behalf of FEMA for individuals seeking to purchase flood insurance policies directly from the NFIP.[133] The DSA also handles the policies of severe repetitive loss properties. The second arrangement is called the Write-Your-Own (WYO) Program, where private insurance companies are paid to write and service the policies themselves. Roughly 86% of NFIP policies are sold by the private insurance companies participating in the WYO Program.[134] Companies participating in the WYO program are compensated through a variety of methods.[135] Some have argued that the levels of WYO compensation are too generous, while others have argued that reimbursement levels are insufficient to cover all expenses associated with servicing flood policies under the procedures set by FEMA.[136] A GAO study found that FEMA does not systematically consider actual flood expenses and profits when establishing WYO compensation, and has yet to compare WYO companies' actual expenses and compensation. Therefore, FEMA lacks the data to determine how much profit WYO companies make and whether the compensation payments are appropriate.[137]

In addition to the WYO program, there is a small private flood insurance market which most commonly provides commercial coverage, coverage above the NFIP maximums, or coverage in the lender-placed market.[138] In general, the private flood market tends to focus on high-value properties, which command higher premiums and therefore the extra expense of flood underwriting can be more readily justified.[139] At the moment very few private insurers compete

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National Flood Insurance Program, by Diane P. Horn and Baird Webel.

131 GAO, *Flood Insurance: Strategies for Increasing Private Sector Involvement*, GAO-47-127, January 2014, p. 6, https://www.gao.gov/products/GAO-14-127.

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

133 The current Direct Servicing Agent is a company called National Flood Services, https://www.nfipservices.com/.

134 Email correspondence from FEMA Congressional Affairs staff, July 18, 2016. A list of companies participating in the WYO Program is available at https://www.fema.gov/wyo_company.

135 See CRS Report R44593, *Introduction to the National Flood Insurance Program (NFIP)*, by Diane P. Horn and Jared T. Brown.

136 Stuart Mathewson, Patrick Causgrove, and Sara Frankowiak, et al., *The National Flood Insurance Program: Past, Present ... and Future?*, American Academy of Actuaries, Flood Insurance Subcommittee, July 2011, p. 13, https://www.actuary.org/pdf/casualty/AcademyFloodInsurance_Monograph_110715.pdf.

137 GAO, *Flood Insurance: FEMA Needs to Address Data Quality and Consider Company Characteristics When Revising Its Compensation Methodology*, GAO-17-36, December 2016, p. 60, https://www.gao.gov/products/GAO-17-36.

138 The lender-placed or forced-place market is where lenders can force-place flood insurance on properties that are out of compliance with the mandatory purchase requirement.

139 FEMA, *National Flood Insurance Program Report to Congress on Reinsuring NFIP Insurance Risk and Options for Privatizing the NFIP*, August 13, 2015, p. 32, http://www.floods.org/ace-files/documentlibrary/2012_NFIP_Reform/Reinsuring_NFIP_Insurance_Risk_and_Options_for_Privatizing_the_NFIP_Report.pdf.

with the NFIP in the primary voluntary flood insurance market. Some suggest that this is partly because the non-compete clause—the contractual restriction[140] placed on WYO carriers against offering standalone private flood products that compete with the NFIP—curtails the potential involvement of the WYO companies.[141] However, FEMA has announced proposed changes for FY2019 in which they would remove restrictions on WYO companies choosing to offer private flood insurance, while maintaining requirements that such private insurance lines remain entirely separate from a WYO company's NFIP insurance business.[142] If implemented, this would effectively remove the non-compete clause without need for legislation.

Barriers to Private Sector Involvement

Private insurer interest in providing flood coverage has increased in recent years. Advances in the analytics and data used to quantify flood risk mean that a number of private insurance companies and insurance industry organizations have expressed interest in private insurers offering primary flood insurance in competition with the NFIP. Private insurance is seen by many as a way of transferring flood risk from the federal government to the private sector.

A reformed NFIP rate structure could have the effect of encouraging more private insurers to enter the primary flood market; FEMA's subsidized rates are often seen as the primary barrier to private sector involvement in flood insurance.[143] Even without the subsidies mandated by law, the NFIP's definition of full-risk rates differs from that of private insurers. Whereas the NFIP's full-risk rates must incorporate expected losses and operating costs, a private insurer's full-risk rates must also incorporate a return on capital. As a result, even those NFIP policies which are considered to be actuarially sound from the perspective of the NFIP may still be underpriced from the perspective of private insurers.[144]

The rules on the acceptance of private insurance for the mandatory purchase requirement have had a significant impact on the market potential for private insurers. In BW-12, Congress explicitly allowed federal agencies to accept private flood insurance to fulfill the mandatory purchase mortgage requirement as 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.[145] The implementation of this requirement has proved challenging, with the responsible federal agencies issuing two separate Notices of Proposed Rulemaking (NPRM) addressing the issue in October 2013[146] and November 2016.[147] The crux of the implementation issue may be seen as answering

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[140] Details of the WYO company arrangements are available at https://www.fema.gov/media-library-data/1504278934379-6bdf86cd243d53170e7ff8a2afc6770d/FY2018_Financial_Assistance_Subsidy_Arrangement_Oct_2017.pdf.

[141] GAO, *Flood Insurance: Potential Barriers Cited to Increased Use of Private Insurance*, GAO-16-611, July 14, 2016, p. 31, https://www.gao.gov/assets/680/678414.pdf.

[142] FEMA, "National Flood Insurance Program (NFIP); Assistance to Private Sector Property Insurers, Notice of FY 2019 Arrangement," 83(52) *Federal Register* 11772-11778, March 16, 2018.

[143] GAO, *Flood Insurance: Comprehensive Reform Could Improve Solvency and Enhance Resilience*, GAO-17-425, April 2017, p. 34, https://www.gao.gov/products/GAO-17-425.

[144] FEMA, *National Flood Insurance Program Report to Congress on Reinsuring NFIP Insurance Risk and Options for Privatizing the NFIP*, August 13, 2015, p. 58, http://www.floods.org/ace-files/documentlibrary/2012_NFIP_Reform/Reinsuring_NFIP_Insurance_Risk_and_Options_for_Privatizing_the_NFIP_Report.pdf.

[145] 42 U.S.C §4012a(b).

[146] Department of the Treasury, Federal Reserve System, Federal Deposit Insurance Corporation, Farm Credit Administration, National Credit Union Administration, "Loans in Areas Having Special Flood Hazards, Proposed Rule," vol. 78, no. 201 *Federal Register* 65108-65144, October 30, 2013.

[147] Department of the Treasury, Federal Reserve System, Federal Deposit Insurance Corporation, Farm Credit

the question of who would judge whether specific policies met the "at least as broad as" standard and what criteria would be used in making this judgment. The uncertainty about whether or not private policies would meet this standard has been viewed as a barrier to private sector participation in the flood insurance market, along with FEMA's policy on continuous coverage.[148] Continuous coverage is required for property owners to retain any subsidies or cross-subsidies in their NFIP premium rates. A borrower may be reluctant to purchase private insurance if doing so means they would lose their subsidy should they later decide to return to NFIP coverage.

Many insurers also view the lack of access to NFIP data on flood losses and claims as a barrier to more private companies offering flood insurance. It is argued that increasing access to past NFIP claims data would allow private insurance companies to better estimate future losses and price flood insurance premiums, and ultimately to determine which properties they might be willing to insure.[149] However, FEMA's view is that the agency would need to address privacy concerns in order to provide property level information to insurers, because the Privacy Act of 1974[150] prohibits FEMA from releasing policy and claims data which contains personally identifiable information.

Potential Effects of Increased Private Sector Involvement on the NFIP

Private sector competition might increase the financial exposure and volatility of the NFIP, as private markets will likely seek out policies that offer the greatest likelihood of profit. In the most extreme case, the private market may "cherry-pick" (i.e., adversely select) the profitable, lower-risk NFIP policies that are "overpriced" either due to cross-subsidization or imprecise flood insurance rate structures.[151] This could leave the NFIP with a higher density of actuarially unsound policies that are being directly subsidized or benefiting from cross-subsidization. Because the NFIP cannot refuse to write a policy, those properties that are considered "undesirable" by private insurers are likely to remain in the NFIP portfolio—private insurers will not compete against the NFIP for policies that are inadequately priced from their perspective.[152] Private insurers, as profit-seeking entities, are unlikely to independently price flood insurance policies in a way that ensures affordable premiums as a purposeful goal, although some private policies could be less expensive than NFIP policies. It is likely that the NFIP would be left with a higher proportion of subsidized policies, which may become less viable in a competitive market.[153]

Administration, National Credit Union Administration, "Loans in Areas Having Special Flood Hazards—Private Flood Insurance," vol. 81, no. 215 *Federal Register* 78063-78080, November 7, 2016.

148 GAO, *Flood Insurance: Potential Barriers Cited to Increased Use of Private Insurance*, GAO-16-611, July 14, 2016, pp. 26-29, https://www.gao.gov/assets/680/678414.pdf.

149 American Academy of Actuaries Flood Insurance Work Group, *The National Flood Insurance Program: Challenges and Solutions*, April 2017, p. 60, http://www.actuary.org/files/publications/FloodMonograph.04192017.pdf.

150 P.L. 93-579, 5 U.S.C. §552a, as amended.

151 David Altmaier, Andy Case, and Mike Chaney, et al., *Flood Risk and Insurance*, National Association of Insurance Commissioners and the Center for Insurance Policy and Research, CIPR Study Series 2017-1, April 2017, p. 47, http://www.naic.org/documents/cipr_study_1704_flood_risk.pdf.

152 FEMA, *National Flood Insurance Program Report to Congress on Reinsuring NFIP Insurance Risk and Options for Privatizing the NFIP*, August 13, 2015, p. 85, http://www.floods.org/ace-files/documentlibrary/2012_NFIP_Reform/Reinsuring_NFIP_Insurance_Risk_and_Options_for_Privatizing_the_NFIP_Report.pdf.

153 American Academy of Actuaries Flood Insurance Work Group, *The National Flood Insurance Program: Challenges and Solutions*, April 2017, p. 66, http://www.actuary.org/files/publications/FloodMonograph.04192017.pdf.

Any significant increase in private insurer writing that "depopulates" the NFIP may undermine the NFIP's ability to generate revenue, reducing the amount of borrowing that can be repaid or extending the time required to repay the debt. As the number of NFIP policies decreases, it may become increasingly difficult for the remaining NFIP policyholders to subsidize policies and repay NFIP debt. In the long term the program could be left as a residual market for subsidized or high-risk properties. While this may be a valid policy choice, a likely consequence is that the NFIP as a residual market would not be financially self-sustaining and would require support from the federal government in some form.[154]

If the number of NFIP policyholders were to decrease significantly, it might also be difficult to support the NFIP's non-insurance functions of reducing flood risk through floodplain management and mapping. Enforcement of flood mitigation standards could be more challenging within a private flood insurance system, as the current system makes the availability of NFIP insurance in a community contingent on the implementation of floodplain management standards. However, government investment in mitigation could increase private market participation by reducing the flood exposure of high risk properties and thereby increasing the number of properties that private insurers would be willing to cover.[155] The Association of State Floodplain Managers (ASFPM) has expressed concerns that the widespread availability of private flood insurance could lead some communities to drop out of the NFIP and rescind some of the floodplain management standards and codes they had adopted, leading to more at-risk development in flood hazard areas.[156] ASFPM suggested that this issue could be addressed by allowing private policies to meet the mandatory purchase requirement only if they were sold in participating NFIP communities.[157]

Reinsurance

In HFIAA, Congress revised the authority of FEMA to secure reinsurance for the NFIP from the private reinsurance and capital markets.[158] 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 covers 26% of losses between $4 billion and $8 billion arising from a single flooding event.[159] Although it is too early to estimate the total claims, FEMA has so far paid over $8.6 billion in claims for Hurricane Harvey, triggering the 2017 reinsurance.[160] 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

[154] American Academy of Actuaries Flood Insurance Work Group, *The National Flood Insurance Program: Challenges and Solutions,* April 2017, p. 68, http://www.actuary.org/files/publications/FloodMonograph.04192017.pdf.

[155] FEMA, *National Flood Insurance Program Report to Congress on Reinsuring NFIP Insurance Risk and Options for Privatizing the NFIP*, August 13, 2015, p. 108, http://www.floods.org/ace-files/documentlibrary/2012_NFIP_Reform/Reinsuring_NFIP_Insurance_Risk_and_Options_for_Privatizing_the_NFIP_Report.pdf.

[156] Association of State Floodplain Managers, *ASFPM's Comments on Loans in Areas Having Special Flood Hazards - Private Flood Insurance Joint Notice of Proposed Rulemaking*, January 6, 2017, pp. 1-4, http://www.floods.org/ace-images/PrivateFloodIns_OCC_Jan2017.pdf.

[157] Ibid.

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

[159] See FEMA, *National Flood Insurance Program's Reinsurance Program for 2017*, at https://www.fema.gov/nfip-reinsurance-program.

[160] Email correspondence from FEMA Congressional Affairs staff, April 20, 2018.

billion and $8 billion.[161] In April 2018, FEMA announced that it would seek to transfer additional NFIP risk to private markets through a reinsurance procurement in which the reinsurer acts as a transformer to transfer NFIP-insured flood risk through the issuance of a catastrophe bond, to be effective for a term of "likely" three years.[162]

The purchase of private market reinsurance reduces the likelihood of FEMA needing to borrow from the Treasury to pay claims. In addition, as GAO noted, reinsurance could be beneficial because it allows FEMA to recognize some of its flood risk and the associated risk up front through the premiums it pays to the reinsurers rather than after the fact borrowing from Treasury. From a risk management perspective, using reinsurance to cover losses in only the more extreme years could help the government to manage and reduce the volatility of its losses over time. However, because reinsurers understandably charge FEMA premiums to compensate for the risk they assume, the primary benefit of reinsurance is to transfer and manage risk rather than to reduce the NFIP's long-term fiscal exposure.[163] For example, a reinsurance scenario which would provide the NFIP with $16.8 billion coverage (sufficient for Katrina-level losses) could cost an estimated $2.2 billion per year.[164] However, the NFIP's finances do not offer room for expenditure of this amount on reinsurance, as the current premium income is only about $3.5 billion per year, and most of that is required to pay claims.

Provisions Related to Private Insurance in H.R. 2874

- Section 201 would revise the definition of private flood insurance previously defined in BW-12. This section would strike existing statutory language describing how private flood insurance must provide coverage "as broad as the coverage" provided by the NFIP. Instead, the definition would rely on whether the insurance policy and insurance company were in compliance in the individual state (as defined to include certain territories and the District of Columbia). Further, "private flood insurance" would be specifically defined as including surplus lines insurance.[165] Though the majority of regulation of private flood insurance would then rest with individual states, federal regulators[166] would be required to develop and implement requirements relating to the financial strength of private insurance companies from which such entities and agencies will accept private insurance, provided that such requirements shall not affect or conflict with any state law, regulation, or procedure concerning the regulation of the

[161] Email correspondence from FEMA Congressional Affairs staff, January 5, 2018. For further details, see FEMA, *National Flood Insurance Program's Reinsurance Program*, at https://www.fema.gov/nfip-reinsurance-program.

[162] FEMA, *National Flood Insurance Program (NFIP) Reinsurance Program*, at https://www.fema.gov/nfip-reinsurance-program. For additional information on this, see CRS Insight IN10887, *The National Flood Insurance Program (NFIP), Reinsurance, and Catastrophe Bonds*, by Diane P. Horn and Baird Webel.

[163] GAO, *Flood Insurance: Comprehensive Reform Could Improve Solvency and Enhance Resilience*, GAO-17-425, April 2017, p. 19, https://www.gao.gov/products/GAO-17-425.

[164] FEMA, *National Flood Insurance Program Report to Congress on Reinsuring NFIP Insurance Risk and Options for Privatizing the NFIP*, August 13, 2015, p. 171, http://www.floods.org/ace-files/documentlibrary/2012_NFIP_Reform/Reinsuring_NFIP_Insurance_Risk_and_Options_for_Privatizing_the_NFIP_Report.pdf.

[165] Surplus lines (or non-admitted) insurance provides coverage for unusual risks typically unavailable in the traditional insurance marketplace. For a further discussion of surplus lines insurance, see http://www.naic.org/cipr_topics/archive_topic_nonadmitted_insurance_reinsurance.htm.

[166] Specifically "the Director of the Federal Housing Finance Agency, in consultation with the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation, the Secretary of Housing and Urban Development, the Government National Mortgage Association, and the Secretary of Agriculture."

business of insurance. The dollar amount of coverage would still have to meet federal statutory requirements and the GSEs may implement requirements relating to the financial strength of such companies offering flood insurance. This section would also specify that if a property owner purchases private flood insurance and decides then to return to the NFIP, they would be considered to have maintained continuous coverage. This section would allow private insurers to offer policies that provide coverage that might differ significantly from NFIP coverage, either by providing greater coverage or potentially providing reduced coverage that could leave policyholders exposed after a flood.

- Section 202 would apply the mandatory purchase requirement only to residential improved real estate, thereby eliminating the requirement for other types of properties (e.g., all commercial properties) to purchase flood insurance from January 1, 2019. This would likely affect the policy base of the NFIP by reducing the number of commercial properties covered.[167] However, it is uncertain how many would elect to forgo insurance coverage (public or private) entirely. To the extent that commercial properties no longer choose to carry insurance (or are allowed to do so by the conditions of their mortgages), there may be increased uninsured damages to these properties from floods.
- Section 203 would eliminate the non-compete requirement in the WYO arrangement with FEMA that currently restricts WYO companies from selling both NFIP and private flood insurance policies. This would allow the WYO companies to offer their own insurance policies while also receiving reimbursement for their participation in the WYO Program to administer the NFIP policies. It is unknown what criteria WYO companies would use to establish their own policies, and how they would choose to offer those policies rather than NFIP policies to potential customers.
- Section 204 would require FEMA to make publicly available all data, models, assessments, analytical tools, and other information that is used to assess flood risk or identify and establish flood elevations and premiums. This section would also require FEMA to develop an open-source data system by which all information required to be made publicly available may be accessed by the public on an immediate basis by electronic means. Within 12 months after enactment, FEMA would be required to establish and maintain a publicly searchable database that provides information about each community participating in the NFIP. This section provides that personally identifiable information would not be made available; the information provided would be based on data that identifies properties at the zip code or census block level. Ultimately, this data could be used to better inform the participation of private insurers in offering private flood insurance, as well as informing future flood mitigation efforts. However, the availability of NFIP data could make it easier for private insurers to identify the NFIP policies that are "overpriced" due to explicit cross-subsidization or imprecise flood insurance rate structures, and adversely select these properties, while the government would likely retain those policies that benefit from those subsidies and imprecisions, potentially increasing the deficit of the NFIP.[168]

[167] As of January 2018, there were 263,014 non-residential policies out of a total of 5,057,368 NFIP policies, or 5.2%. See https://www.fema.gov/policies-force-occupancy-type.

[168] American Academy of Actuaries Flood Insurance Work Group, *The National Flood Insurance Program: Challenges and Solutions*, April 2017, p. 4, http://www.actuary.org/files/publications/FloodMonograph.04192017.pdf.

- Section 506 would establish that the allowance paid to WYO companies would not be greater than 27.9% of the chargeable premium for such coverage. It would also require FEMA to reduce the cost of companies participating in the WYO program.
- Section 511 would require annual transfer of a portion of the risk of the NFIP to the private reinsurance or capital markets to cover a FEMA-determined probable maximum loss target that is expected to occur in the fiscal year, no later than 18 months after enactment.

Provisions Related to Private Insurance in Senate Bills

- S. 1313, Section 101, would require annual transfer of a portion of the risk of the NFIP to the private reinsurance or capital markets in an amount that is sufficient to maintain the ability of the program to pay claims, and limit the exposure of the NFIP to potential catastrophic losses from extreme events.
- S. 1313, Section 401, would allow any state-approved private insurance to satisfy the mandatory purchase requirement, and allow private flood insurance to count as continuous coverage. This section would also change the amount of insurance required[169] for both private flood insurance policies and NFIP policies in order to satisfy the mandatory purchase requirement. The required coverage would be the lesser of 80% of the purchase price of the property, the maximum NFIP coverage for that type of property, or the outstanding balance of the loan (for multiunit structures only). This section would require FEMA, within two years of enactment, to report on the extent to which the properties for which private flood insurance is purchased tend to be at a lower risk than properties for which NFIP policies are purchased (i.e., the extent of adverse selection), by detailing the risk classifications of the private flood insurance policies. This data, while identifying adverse selection based on risk profiles, might not identify if there has been adverse selection based on subsidization.
- S. 1313, Section 402, would give temporary authority for sale of private flood insurance by WYO companies for certain properties during the first two years after enactment (e.g., non-residential properties, severe repetitive loss properties, business properties, or any property that has incurred flood-related damage in which the cumulative amount of payments equaled or exceeded the fair market value of the property).[170] After two years and on completion of a study measuring the risk classification underwritten by participating WYO companies, if the FEMA Administrator determines that the provision of flood insurance to properties in addition to those categories above will not adversely impact the ability of the NFIP to maintain a diverse risk pool, the Administrator is authorized to expand (or limit) the participation of WYO companies in the broader flood insurance marketplace.
- S. 1313, Section 403, would require FEMA to study the feasibility of selling or licensing the use of historical structure-specific NFIP claims data to non-

[169] 42 U.S.C. §4012a(a) requires that a building or mobile home must be covered by flood insurance in an amount at least equal to its development or project cost (less estimated land cost) or to the maximum limit of coverage made available with respect to the particular type of property under the NFIP, whichever is less. This section also provides that the amount of flood insurance need not exceed the outstanding principal balance of the loan and need not be required beyond the term of the loan.

[170] 42 U.S.C. §4014(a)(2)(A)-(D).

governmental entities, while reasonably protecting policyholder privacy, and report within a year of enactment. This section would also authorize FEMA to sell or license claims data as the Administrator determines is appropriate and in the public interest, with the proceeds to be deposited in the National Flood Insurance Fund.

- S. 1313, Section 602, would require FEMA, not later than one year from enactment, to create and maintain a publicly searchable database that includes the aggregate number of claims filed each month, by state; the aggregate number of claims paid in part or in full; and the aggregate number of claims denials appealed, denials upheld on appeal, and denials overturned on appeal; without making personally identifiable information available.
- S. 1368, Section 302, would establish that the total amount of reimbursement paid to WYO companies would not be greater than 22.46% of the chargeable premium for such coverage.
- S. 1368, Section 304, would require FEMA, within 12 months of enactment, to develop a schedule to determine the actual costs of WYO companies, including claims adjusters and engineering companies, and reimburse the WYO companies only for the actual costs of the service or products.
- S. 1571, Section 302, would specify that FEMA may consider any form of risk transfer, including traditional reinsurance, catastrophe bonds, collateralized reinsurance, resilience bonds, and other insurance-linked securities.

Properties with Multiple Losses

An area of controversy involves NFIP coverage of properties that have suffered multiple flood losses, which are at greater risk than the average property insured by the NFIP. One concern is the cost to the program; another is whether the NFIP should continue to insure properties that are likely to have further losses.[171] The NFIP currently uses more than one definition of repetitive loss. The statutory definition of a repetitive loss structure[172] is used for applications for Flood Mitigation Assistance (FMA) grants. A slightly different definition is used for Increased Cost of Compliance Coverage,[173] and a third definition is used for internal tracking of insurance data and

[171] See, for example, National Public Radio, *National Flood Insurance Program Will Pay Out Billions for a Few Properties*, September 21, 2017, https://www.npr.org/2017/09/21/552708255/national-flood-insurance-program-will-pay-out-billions-for-a-few-properties; National Resources Defense Council, *Seeking Higher Ground: How to Break the Cycle of Repeated Flooding with Climate-Smart Flood Insurance Reforms*, Issue Brief 17-07-A, July 2017, pp. 1-14, https://www.nrdc.org/sites/default/files/climate-smart-flood-insurance-ib.pdf; and "One House, 22 Floods: Repeated Claims Drain Flood Insurance Program," *Wall Street Journal*, September 15, 2017, https://www.wsj.com/articles/one-house-22-floods-repeated-claims-drain-federal-insurance-program-1505467830.

[172] The statutory definition of a repetitive loss structure is a structure covered by a contract for flood insurance that (a) has incurred flood-related damage on two occasions, in which the cost of repair, on the average, equaled or exceeded 25% 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. 42 U.S.C. §4121(a)(7).

[173] The definition of a repetitive loss structure used for Increased Cost of Compliance Coverage is a building covered by a contract for flood insurance that has incurred flood-related damages on two occasions during a 10-year period ending on the date of the event for which a second claim is made, in which the cost of repairing the flood damage, on the average, equaled or exceeded 25% of the market value of the building at the time of such flood event. Federal Emergency Management Agency, *NFIP Increased Cost of Compliance Coverage Guidance for State and Local Officials*, FEMA 301, September 2003, pp. 1-6, https://www.fema.gov/pdf/plan/floodplain/fema301.pdf.

also for the Community Rating System.[174] The statutory definition of a severe repetitive loss property is a property which has 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.[175] The definition of severe repetitive loss property is consistent across program elements in the NFIP.

According to FEMA, repetitive loss (RL) and severe repetitive loss (SRL) properties account for approximately $17 billion in claims, or approximately 30% of total claims over the history of the program. As of January 31, 2017, there were 90,000 currently insured repetitive loss properties and 11,000 currently insured severe repetitive loss properties. The currently insured repetitive loss and severe repetitive loss properties (which represent about 2% of the overall policies in the NFIP) have accounted for approximately $9 billion in claims, or approximately 16% of total claims over the history of the program.[176] A study of all of the residential NFIP claims filed between January 1978 and December 2012 showed that the magnitude of claims for repetitive loss structures as a percentage of building value was higher than non-repetitive loss properties by 5%-20%.[177]

Provisions Related to Multiple-Loss Properties in H.R. 2874

- Section 402 would require certain NFIP communities with a history of flood loss to identify where repeatedly flooded properties are located and assess the continuing risks to such areas and develop a community-specific plan for mitigating flood risks in these areas or face possible sanctions from FEMA. Covered communities include those which participate in the NFIP within which such properties are located: (i) 50 or more repetitive loss structures[178] for each of which, during any 10-year period, two or more claims for payment under flood insurance coverage have been made with a cumulative amount exceeding $1,000; (ii) five or more severe repetitive loss structures for which mitigation activities have not been conducted; or (iii) a public facility or a private nonprofit facility that has received assistance for repair, restoration, reconstruction, or replacement under Section 406 of the Stafford Act (P.L. 93-288)[179] in connection with more than one flooding event in the most recent 10-year period. To assist communities in the preparation of plans, FEMA would be required to provide covered communities with appropriate data regarding property addresses and dates of claims associated with insured properties within the community. Before sanctioning a community for not fulfilling the requirements of this section, FEMA would be required to issue notice of noncompliance before sanctions and recommendations for actions to bring the community into compliance. FEMA

[174] The internal insurance data definition used by FEMA is 2 or more losses of $1,000 or more over a rolling 10-year period. Email correspondence from FEMA Congressional Affairs staff, April 7, 2017.

[175] See 42 U.S.C. §4014(h) and 44 C.F.R. §79.2(h).

[176] Email correspondence from FEMA Congressional Affairs staff, April 7, 2017. Almost every SRL property also fits the insurance data definition of RL property (over 99%), so the 90,000 referenced as RL above includes the 11,000 referenced as SRL. In addition, some of the properties counted in the figures since the beginning of the NFIP have been mitigated and others are not currently insured by the program.

[177] Caroline Kousky and Erwann Michel-Kerjan, "Examining Flood Insurance Claims in the United States: Six Key Findings," *Journal of Risk and Insurance*, vol. 82 (2015), p. 18, http://opim.wharton.upenn.edu/risk/library/J2015JORI_Flood-Insurance-Claims_CK-EMK.pdf.

[178] Section 402 uses the statutory definition of repetitive loss structure.

[179] 42 U.S.C. §5172.

would also be required to consider the resources available to the community affected, including federal funding, the portion of the community that lies within the SFHA, and other factors that make it difficult for the community to conduct mitigation activities for existing flood-prone structures. FEMA would be required to develop sanctions in future regulations. In making determinations regarding financial assistance for mitigation, FEMA may consider the extent to which a community has complied with this subsection. Although a community may incorporate plans required under this section into flood mitigation plans[180] or hazard mitigation plans,[181] which they may already be required to complete, covered communities may feel that this section imposes significant additional requirements.

- Section 504 would define a new "multiple-loss property" category, which would include three types of properties: (1) a revised definition of repetitive loss property; (2) a severe repetitive loss property, with the same definition as the existing statutory definition; and (3) a new category of extreme repetitive loss property. The new definition of a repetitive loss property would be a structure that has incurred flood damage for which two or more separate claims of any amount have been made.[182] The new definition of an extreme repetitive loss property would be a structure which has incurred flood damage for which at least two separate claims have been made with the cumulative amount of such claims payments exceeding 150% of the maximum coverage available for the structure. This section also defines the term "qualified claims payment" as a claims payment of any amount made in connection with a flood event that occurred after the date of enactment. Any multiple-loss properties which are not paying full risk-based rates, and for which two qualified claims payment have been made, would have premium rates increased at 10% per year until the full risk-based rate is reached. After three qualified claims payment, rates would be increased at 15% per year until the full risk-based rate is reached. Severe repetitive loss properties and extreme repetitive loss properties would be subject to a minimum annual deductible of $5,000. Flood insurance would not be available to an extreme repetitive-loss property for which a claim payment for flood loss was made after the date of enactment if the property owner refused an offer of mitigation. This section would establish a broader definition of repetitive loss properties than the current definition, which would bring more properties into the multiple-loss categories. This section would also establish that only future claims would count towards classifying a property as a multiple-loss property, and would eliminate grandfathering for multiple-loss properties after two future claims.
- Section 505 would eliminate any new or renewed NFIP coverage for multiple-loss properties with excessive lifetime claims. The section defines such properties as those where aggregate amounts in claims payments that have been made after18 months from enactment exceed three times the amount of the replacement value of the structure. This provision would represent the first time that the NFIP would refuse to cover a property.

[180] 42 U.S.C. §4104c.

[181] Section 322 of the Stafford Act. 42 U.S.C. §5165.

[182] Note that this definition is considerably broader than any of the definitions currently in use by the NFIP.

Provisions Related to Multiple-Loss Properties in Senate Bills

- S. 1571, Section 101, contains provisions which are almost identical to those in H.R. 2874, Section 402, for repeatedly flooded communities. The only difference is that in the definition of a covered community, the criteria for repetitive loss structures is only that 50 or more RL structures are located within the community, without the additional criteria in H.R. 2874.

Increased Cost of Compliance (ICC) Coverage

The NFIP requires most policyholders[183] to purchase ICC coverage, which 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, with rates for the coverage as well as how much can be paid out for claims, set by FEMA.[184] The amount that can be charged for ICC coverage is capped in law at $75 per year: currently ICC premiums vary between $4 and $70.[185] ICC policy premiums are separate from standard flood insurance policy premiums. ICC coverage provides an amount up to $30,000 in payments for certain eligible expenses.[186] For example, ICC claims payments may be used toward the costs of elevating, demolishing, relocating, or flood-proofing non-residential buildings, or any combination of these actions. ICC coverage is in addition to the building coverage provided by the standard flood policy. However, FEMA's policy is that the payment on the building claim plus the ICC claim cannot exceed the statutory maximum payment of $250,000 for residential structures or $500,000 for non-residential structures.

Since the ICC was introduced in 1997, the program has received over $1.4 billion in premiums and paid over $700 million in claims, with over $450 million in underwriting expenses and $50 million of claims handling expenses. However, between $100 million and $200 million has yet to be paid on claims for older years. For the years on which FEMA has data, 2007-2015, the NFIP has lost money on ICC on a cash flow basis. During that time period, on aggregate premiums of $701 million, the NFIP had aggregate ICC underwriting losses of $171 million.[187]

According to ICC data, elevation is the most common form of mitigation. Approximately 61% of all ICC claims closed with payment are single family residential claims involving compensation for elevation of a structure to or above the Base Flood Elevation (BFE).[188] Although the cost of elevating a structure depends on the type of building and elevation requirement, the average cost of elevating an existing property has been estimated at $33,239 to $91,732,[189] and suggestions have been made for years that the amount of ICC coverage should be raised.[190]

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

184 42 U.S.C. §4011(b).

185 42 U.S.C. §4011(b).

186 See FEMA, *Flood Insurance Manual, Rating Section*, Revised April 2018, p. RATE 19, https://www.fema.gov/media-library-data/1523307287100-4cf9726b2eb04c3471a3e9d37a58fa6a/05_rating_508_apr2018.pdf.

187 Email correspondence from FEMA Congressional Affairs staff, April 3, 2017.

188 FEMA, *NFIP: Use of Increased Cost of Compliance Coverage*, Fiscal Year 2009 Report to Congress, October 2009, p. 6. Report provided by FEMA Congressional Affairs Staff. The Base Flood Elevation is the elevation of surface water resulting from a flood that has a 1% chance of being equaled or exceeded in any given year.

189 Aerts, J.C.J.H., Botzen, W.J.W., and Moel, H. de, et al., "Cost Estimates for Flood Resilience and Protection Strategies in New York City," *Annals of the New York Academy of Sciences*, vol. 1294, no. 1 (August 2013), pp. 22-26.

190 See, for example, Association of State Floodplain Managers, *Suggestions for Improving Increased Cost of Compliance Coverage Under the National Flood Insurance Program*, 2007, http://www.floods.org/PDF/

The need to increase the amount of ICC coverage is one of the areas where H.R. 2874 and all of the Senate bills agree; although the suggested amounts differ, all would raise the $30,000 limit.

Proposed Changes to Increased Cost of Compliance Coverage in H.R. 2874

- Section 403 would authorize FEMA to supplement the existing ICC coverage with the option of allowing policyholders to purchase additional ICC coverage up to $60,000, for a surcharge priced accordingly by FEMA. This section would also expand the availability of ICC coverage to include properties that FEMA or a community identifies as being at high risk for future flood damages, and properties located in a covered community (as defined in Section 402). This may allow policyholders to claim ICC coverage in certain circumstances to mitigate their property before a flood, rather than waiting until after they had been flooded.

Proposed Changes to Increased Cost of Compliance Coverage in Senate Bills

- S. 1313, Section 204, would increase ICC coverage to $75,000, and would exempt the ICC payment amount from the maximum payout of an NFIP policy.
- S. 1313, Section 404, would require a private flood insurance policy to provide coverage that meets or exceeds the increased cost of compliance coverage provided by a standard flood insurance policy under the NFIP.
- S. 1368, Section 201, would increase ICC coverage to $100,000, and would exempt ICC payment amounts from the maximum payout of an NFIP policy. This section would make ICC coverage available to all NFIP policyholders, in and out of SFHAs, if the community has established land use and control measures for the area in which the property is located. This section would also allow policyholders to use ICC coverage for any eligible project costs under the FMA, HMGP,[191] or Pre-Disaster Mitigation (PDM)[192] programs for acquisition, demolition, elevation, relocation, or small structural projects funded under those programs.
- S. 1571, Section 103, would increase primary ICC coverage to $60,000, with the option of allowing policyholders to purchase additional ICC coverage up to $100,000, for a surcharge priced accordingly by FEMA, and would exempt ICC payment amounts from the maximum payout of an NFIP policy. This section

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ASFPM_ICC_Positions_Recommendations_0807.pdf; FEMA, *NFIP: Use of Increased Cost of Compliance Coverage*, Fiscal Year 2009 Report to Congress, October 2009, p. 32; and Lingle, B. and Kousky, C., *Mitigation Post-Flood: FEMA's Increased Cost of Compliance (ICC) Coverage*, http://www.rff.org/blog/2017/mitigation-post-flood-fema-s-increased-cost-compliance-icc-coverage.

[191] The FEMA Hazard Mitigation Grant Program (HMGP) was established under Section 404 of the Robert T. Stafford Disaster Assistance and Emergency Relief Act (42 U.S.C. §5170c). HMGP assistance is triggered by a major disaster declaration by the President, with the goal of enacting mitigation measures to reduce the loss of life and property from future disasters. For further information on the HMGP program, see https://www.fema.gov/hazard-mitigation-grant-program and CRS Report R45017, *Flood Resilience and Risk Reduction: Federal Assistance and Programs*, by Nicole T. Carter et al.

[192] The FEMA Pre-Disaster Mitigation Program (PDM) was established under Section 203 of the Robert T. Stafford Disaster Assistance and Emergency Relief Act (42 U.S.C. §5133). The goal of the PDM program is to reduce overall risk to the population and structures from future hazard events, while also reducing reliance on federal funding in future disasters. For further information on the PDM program, see https://www.fema.gov/pre-disaster-mitigation-grant-program and CRS Report RL34537, *FEMA's Pre-Disaster Mitigation Program: Overview and Issues*, by Jared T. Brown.

would make ICC coverage available to all NFIP policyholders, in and out of SFHAs, if the community has established land use and control measures for the area in which the property is located. This section would also allow policyholders to use ICC coverage for any eligible project costs under the FMA, HMGP, or Pre-Disaster Mitigation (PDM) programs for acquisition, demolition, elevation, relocation, or small structural projects funded under those programs.

Administrative Reforms

All of the bills include provisions related to administrative reforms of the NFIP, pilot projects, and other studies, which are not described in detail in this report. **Table 1** identifies the provisions in the House and Senate bills related to administrative reform, divided into the following categories: (1) payment and purchase requirements, (2) disclosure, information, claims, appeals, administrative reform, and oversight; and (3) fraud and litigation. Only the disclosure requirements will be discussed in this report.

Disclosure Requirements

Although some individual states require real estate transactions to be accompanied by a disclosure of information pertaining to flood or other hazards, there is currently no flood risk disclosure requirement under the NFIP. In fact, property owners may not have knowledge of the entire past flood history of their property.

Provisions Related to Disclosure Requirements in H.R. 2874

- Section 109 would require that no new flood insurance coverage may be provided after September 30, 2022, unless an appropriate body (e.g., the local or state government) has imposed, by statute or regulation, a duty on any seller or lessor of improved real estate to provide a property flood hazard disclosure which discloses any actual knowledge of the seller of prior physical damage caused by flood to any building on the property, prior insurance claims for flood losses (NFIP or private flood insurance), any previous notification regarding the designation of the property as a multiple-loss property, and any federal legal obligation to obtain and maintain flood insurance running with the property. This disclosure may affect properties that have flood history during real estate transactions by reducing the likelihood of the sale of the property or reducing its value.

Provisions Related to Disclosure Requirements in Senate Bills

- S. 1313, Section 203, would require a seller or lessor to provide a flood risk information pamphlet produced by FEMA and disclose the available flood risk profile of the property, including any past flood damage to the property or past claims for flood losses (NFIP or private flood insurance); any information known regarding designation of the property as a repetitive loss or severe repetitive loss property and elevation certificate that is available to the seller or lessor; and any requirement that the property be covered by flood insurance because the property owner, or a previous owner, obtained any form of disaster assistance under the Stafford Act. This section would also establish a 10-day period (or a period of a different length of time if mutually agreed upon by the parties) during which the purchaser or lessor may review options for managing or mitigating flood risk with respect to the property. This disclosure requirement may affect the likelihood of the sale of properties with flood risk, but could also allow for the possibility of mitigation by purchasers.

- S. 1368, Section 423, would require landlords to disclose to tenants the flood zone of the property, whether the property is covered by flood insurance, and the availability of contents coverage under the NFIP. This could encourage a higher take-up of contents coverage by renters.
- S. 1571, Section 105, would require that no new flood insurance coverage may be provided after September 30, 2022, unless the relevant public body has imposed, by statute or regulation, a duty on any seller of improved real estate to provide a property flood hazard disclosure which discloses any actual knowledge of the seller of prior physical damage caused by flood to any building on the property, prior insurance claims for flood losses (NFIP or private flood insurance), any previous notification regarding the designation of the property as a multiple-loss property, and any federal legal obligation to obtain and maintain flood insurance running with the property. The same requirements would apply to lessors of a rental property with a lease of 30 days or longer.

Non-Insurance Functions of the NFIP

In the debate about the future of the NFIP, the fact that flood insurance is only one of the functions of the NFIP's key responsibilities is sometimes overlooked. The NFIP has always been more than just an insurance program. In addition to providing flood insurance, the program identifies and maps flood hazards, sets minimum floodplain management standards, and offers grants and incentive programs for household- and community-level investments in flood risk reduction. The main non-insurance policy goal of the NFIP is to mitigate and reduce the nation's comprehensive flood risk[193] through the development and implementation of floodplain management standards.

Floodplain Mapping

FEMA develops, in coordination with participating communities, flood maps called Flood Insurance Rate Maps (FIRMs) that depict the community's floodplain and flood risk zones. FIRMs provide the basis for setting insurance rates and identifying properties whose owners are required to purchase flood insurance. The FIRMs also provide the basis for establishing floodplain management standards that communities must adopt and enforce as part of their participation in the NFIP. Flood maps adopted across the country vary considerably in age and in quality, and there is no consistent, definitive timetable for when a particular community will have its maps revised and updated. By law, once every five years, FEMA is required to assess the need to revise and update all floodplain areas and flood-risk zones defined, delineated, or established by the mapping program, based on an analysis of all natural hazards affecting flood risks.[194] This requirement does not dictate, however, that the FIRMs actually be updated once every five years.

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, sea

[193] 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.

[194] 42 U.S.C. §4101(e).

walls, sand dunes), or environmental changes in the community. The FEMA mapping process, and some NFIP flood maps, have been criticized for being out of date, using poor quality data or methods, or not taking account of changed conditions.[195] In addition, the procedure to update maps is time consuming, in large part due to the lengthy statutory consultation and appeals process.[196]

In BW-12, Congress reestablished and reauthorized a body called the Technical Mapping Advisory Council (TMAC).[197] The TMAC is a federal advisory committee established to review and make recommendations to FEMA on matters related to the national flood mapping program. The TMAC is broadly authorized to review and recommend improvements to how FEMA produces and disseminates flood hazard, flood risk, and flood map information.[198] The TMAC is required to submit an annual report to the FEMA Administrator summarizing its activities, its evaluation of FIRMs and FEMA's mapping activities, and its recommendations for improving elements of the mapping program.[199] Within a year of passage of BW-12, the TMAC was also required to submit to the FEMA Administrator a one-time report with recommendations on how to ensure that FIRMs incorporate the best available climate science to assess flood risks and ensure that FEMA uses the best available methodology to consider the impact of sea level rise and future development on flood risk.[200] This report, the *Future Conditions* report, was submitted in final form in February 2016.[201] FEMA is legally required to "incorporate any future risk assessment" by the TMAC in the *Future Conditions* report into any revision or update of the NFIP's FIRMs.[202] Further, among the information FEMA is required to include in the updating of FIRMs, is "any other relevant information as may be recommended by the [TMAC]."[203] Statute does not provide guidance on how or when the Administrator should act on the TMAC recommendations. However, on an annual basis, BW-12 required FEMA to report to the authorizing committees of jurisdiction in Congress[204] and the Office of Management and Budget

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195 DHS Office of Inspector General, *FEMA Needs to Improve Management of Its Flood Mapping Programs*, OIG-17-110, Washington, DC, September 27, 2017, pp. 3-13, https://www.oig.dhs.gov/sites/default/files/assets/2017/OIG-17-110-Sep17.pdf.

196 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. 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. There are also legal requirements allowing communities and individuals to appeal during the process of updating FIRMs. See 42 U.S.C. §4101b(d)(1), 42 U.S.C. §4104, 44 C.F.R. §66.1, 42 U.S.C. §4104(c)-(g), and 42 U.S.C. §4104-1.

197 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 describes the conditions for membership, pay, and other matters relating to the operations and structure of the TMAC. BW-12 did not include a termination date for TMAC, thus making it permanent.

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

199 42 U.S.C. §4101a(c)(6).

200 42 U.S.C. §4101a(d)(1)(A).

201 Technical Mapping Advisory Council, *Future Conditions Risk Assessment and Modeling*, December 2015, at http://www.fema.gov/media-library-data/1454954261186-c348aa9b1768298c9eb66f84366f836e/TMAC_2015_Future_Conditions_Risk_Assessment_and_Modeling_Report.pdf. Henceforth referred to as "*Future Conditions*" report in footnotes. This report was also released in an interim format in November 2015.

202 42 U.S.C. §4101a(d)(2).

203 42 U.S.C. §4101b(b)(3)(E).

204 The Committee on Financial Services in the House of Representatives, and the Committee on Banking, Housing,

(OMB) on the recommendations from the TMAC and how FEMA is addressing TMAC recommendations to improve flood insurance rate maps and flood risk data.[205] If FEMA does not act or defers to act on certain TMAC recommendations, FEMA is also required to explain that decision in the BW-12 mandated annual report.[206] TMAC has produced two annual reports, for 2015 and 2016, in addition to the *Future Conditions* report and the 2016 *National Flood Mapping Program Review*.[207]

In the 2015 Annual Report, one of the TMAC recommendations was that FEMA should transfer to a structure-specific flood risk assessment,[208] with a complementary recommendation in the 2016 Annual Report that FEMA should develop risk-based structure-specific premiums for all structures within and outside the SFHA.[209] To do so would require data on the elevation of the first floor of each structure in relation to the BFE.

Funding for Floodplain Mapping

NFIP flood mapping is currently funded in two ways, through (1) annual discretionary appropriations and (2) discretionary spending authority from offsetting money collected from the Federal Policy Fee (FPF).[210] In FY2015, $100 million was appropriated for flood hazard mapping and risk analysis. In FY2016, $190 million was appropriated, and in FY2017, $175.5 million was appropriated.[211] The President's budget request for FY2018, which was submitted to Congress in May 2017, proposed eliminating the discretionary appropriation for flood mapping.[212] However, in the FY2018 Omnibus, Congress appropriated $262.5 million for flood hazard mapping and risk analysis.[213]

The FPF is paid to FEMA and deposited in the National Flood Insurance Fund (NFIF). FEMA has the authority to set the amount charged for the FPF, but Congress retains the authority to determine how much to spend, and on what, from the fees collected. The monies available in the NFIF, other than those used to pay claims, are available only to the extent approved in appropriation acts as offsetting collections.[214] In recent years, Congress has generally followed the budget request from FEMA with relation to the authorized offsetting collections appearing in appropriations bills that are funded using the FPF revenue. In addition, Congress generally directs in appropriations law that FPF revenue in excess of the authorized offsetting collection amounts

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and Urban Affairs in the Senate.

205 Section 100215(1), Title II of P.L. 112-141, 126 Stat. 927, as codified at 42 U.S.C. §4101a(l).

206 Ibid.

207 See https://www.fema.gov/media-library/assets/documents/111853.

208 Technical Mapping Advisory Council, *TMAC 2015 Annual Report*, December 2015, pp. 4-7, https://www.fema.gov/media-library-data/1454954097105-a94df962a0cce0eef5f84c0e2c814a1f/TMAC_2015_Annual_Report.pdf.

209 Technical Mapping Advisory Council, *TMAC 2016 Annual Report*, December 2016, p. 3-2, https://www.fema.gov/media-library-data/1492803841077-57e4653a1b2de856e14672e56d6f0e64/TMAC_2016_Annual_Report_(508).pdf.

210 For additional explanation of NFIP funding, including the funding for mapping, see CRS Report R44593, *Introduction to the National Flood Insurance Program (NFIP)*, by Diane P. Horn and Jared T. Brown.

211 CRS analysis of P.L. 114-4, P.L. 114-113, and P.L. 115-31. See also CRS Report R44593, *Introduction to the National Flood Insurance Program (NFIP)*, by Diane P. Horn and Jared T. Brown.

212 FY2018, Office of Management and Budget, Budget of the U.S. Government, Appendix, Department of Homeland Security, National Flood Insurance Fund, p. 529, https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/budget/fy2018/dhs.pdf.

213 P.L. 115-141.

214 See 42 U.S.C. §4017(a)(4) and 42 U.S.C. §4017(f).

should be spent on floodplain management and mapping. GAO calculated that FEMA should collect $197 million in revenue from the FPF in 2017.[215]

Before FY1986, program costs for administrative expenses, surveys, and studies were financed through congressional appropriations. At the beginning of FY1986, the NFIP was required for the first time to pay all program and administrative expenses with funds derived from insurance premiums.[216] Funding for floodplain mapping changed again in the Omnibus Budget Reconciliation Act of 1990,[217] when Congress required FEMA to establish the FPF to cover the administrative expenses incurred in implementing the flood insurance and floodplain management program. The income from the FPF is designated to pay for floodplain mapping activities, floodplain management programs, and certain administrative expenses.[218] FEMA disagreed with this change, arguing that the benefits of those programs are enjoyed by all communities and residents in the floodplain, not just NFIP policyholders. They contended that most of the salary, study, and floodplain management costs are federal in nature and benefit taxpayers as a whole through programs that reduce future flood losses and resultant federal expenditure.[219]

About 66% of the resources from the FPF are allocated to flood mapping, with floodplain management receiving about 19% of the overall income from the FPF.[220] To the extent that the private flood insurance market grows and policies move from the NFIP to private insurers, FEMA will no longer collect the FPF on those policies and less money will be available for floodplain mapping and management. Concerns have been raised about maintaining the activities funded by the FPF, with some stakeholders arguing that a form of FPF equivalency, or some form of user fee, should be applied to private flood insurance.[221]

Provisions Related to Floodplain Mapping in H.R. 2874

- Section 302 would create a new appeal process if FEMA denies a request to update a flood map based on new information regarding flood elevations or other flood mitigation factors. The initial appeal would be through a FEMA administrative process, with the possibility of a further appeal to the Scientific Resolution Panel.[222] This would give communities the opportunity to appeal requests for a Physical Map Revision, which may currently be prioritized by FEMA on the basis of available resources; these prioritizations are not subject to appeal.[223]

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[215] GAO, *Flood Insurance: Comprehensive Reform Could Improve Solvency and Enhance Resilience*, GAO-17-425, April 2017, p. 40, https://www.gao.gov/products/GAO-17-425.

[216] Stuart Mathewson, Patrick Causgrove, and Sara Frankowiak, et al., *The National Flood Insurance Program: Past, Present ... and Future?*, American Academy of Actuaries, Flood Insurance Subcommittee, July 2011, p. 36, at https://www.actuary.org/pdf/casualty/AcademyFloodInsurance_Monograph_110715.pdf.

[217] P.L. 101-508.

[218] 42 U.S.C. §4014(a)(1)(B)(iii).

[219] Thomas L. Hayes and D. Andrew Neal, *Actuarial Rate Review In Support of the Recommended October 1, 2011, Rate and Rule Changes*, FEMA, September 1, 2011, pp. 15-16, https://www.fema.gov/media-library/assets/documents/23143.

[220] Email correspondence from FEMA Congressional Affairs staff, December 6, 2016.

[221] Association of State Floodplain Managers, *ASFPM Detailed Priorities for NFIP Reauthorization and Reform*, June 17, 2016, p. 1, http://www.floods.org/ace-images/Priorities.pdf.

[222] For further information on the Scientific Resolution Panel, see https://www.floodsrp.org/index.php.

[223] Email correspondence from FEMA Congressional Affairs staff, October 10, 2017.

- Section 306 would require the TMAC within 12 months after enactment to develop a procedure to use in mapping flood hazards located in communities and states that choose to develop alternative maps to the FIRMs developed by FEMA. The recommended standards and requirements would be required to include procedures for providing notification and appeal rights to individuals within the communities of the proposed flood elevation determinations. FEMA would be required to approve or disapprove such proposed maps for use in the NFIP within six months of receiving the proposed alternative maps. This provision would therefore allow states and local governments to finance and develop their own FIRMs independent of the existing process and in accordance with the TMAC procedures, subject to final approval by FEMA.

Provisions Related to Floodplain Mapping in Senate Bills

- S. 1313, Section 404, would require an insurance company that issues a policy for private flood insurance to impose and collect an annual surcharge equivalent to the FPF, which would be transferred to the FEMA Administrator and deposited in the NFIF.
- S. 1313, Section 501, would reauthorize the National Flood Mapping Program at $500 million annually for each of fiscal years 2018 through 2027.
- S. 1313, Section 502, would require TMAC within one year after enactment to develop and establish a set of standards, guidelines and procedures for states, local governments, and other organizations to use in mapping risk and developing alternative maps to FIRMS; and also to develop a procedure for certification by FEMA within 90 days of submission. Upon certification, such map would be considered the FIRM in effect for all purposes for the NFIP and would not be able to be revised, updated, or replaced for three years.
- S. 1313, Section 503, would encourage the use of high-resolution mapping technology in the development of FIRMs.
- S. 1313, Section 504, would require FEMA to replace the flood zone D designation[224] in levee-protected areas with risk zones that are more appropriate for the level of protection that the levee affords.
- S. 1368, Section 204, would reauthorize the National Flood Mapping Program at $800 million annually for each of fiscal years 2018 through 2023. This section would require FEMA to use the most up-to-date and high resolution mapping technology. This section would also require FEMA to develop a dynamic, database-derived digital display of structure-specific flood risk information, as recommended by TMAC, not later than five years after enactment, and issue guidelines for mass letters of map change[225] for states and communities which incorporate such improved flood risk data. Until FEMA would develop these

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[224] FEMA defines flood zone D as an area of possible, but undetermined, flood hazard. The flood zone on the landward side of a non-accredited levee system may be classified into zone D in some circumstances; see FEMA, *Modeling and Mapping Non-Accredited Levees: Understanding the Zone D Designation Fact Sheet*, July 1, 2013, at https://www.fema.gov/media-library/assets/documents/33461.

[225] A Letter of Map Change (LOMC) is a letter which reflects an official change to an effective FIRM. LOMCs are issued in response to several types of request to FEMA to revise or amend an effective FIRM to remove a property or reflect changed flooding conditions on the effective FIRM. See FEMA, *Online Letter of Map Change*, https://hazards.fema.gov/femaportal/onlinelomc/signin.

structure-specific risk-based premiums, it is not possible to say how this would affect premiums for specific flood zones or properties.

- S. 1368, Section 208, would require FEMA to develop a new flood zone designation for areas behind non-accredited levees,[226] and make flood insurance available to properties located within those levee-impacted areas. Until FEMA develops rates for this new flood zone, a structure located behind a non-accredited levee would be eligible for rates associated with areas of moderate flood hazards.
- S. 1368, Section 209, would create a new appeal process if FEMA denies a request to update a flood map. This appeal process could be made by state or local governments, owners, or renters, on the basis that the BFE is scientifically or technically inaccurate or that factors exist that mitigate the risk of flooding. FEMA would be required to provide an opportunity for an administrative hearing. If the appeal does not result in a decision in favor of the party submitting the appeal, that party would be able to request that an appeal of the adverse decision be held through independent, non-binding arbitration. Certain expenses would also be refunded or reimbursed under this provision.
- S. 1368, Section 303, would require FEMA to develop a fee schedule based on recovering the actual costs of providing FIRMs and charge any private entity an appropriate fee for use of such maps. This requirement would provide a mechanism by which private insurance companies could contribute to the costs of floodplain mapping in lieu of paying the FPF.
- S. 1571, Section 201, would continue existing authorization of the National Flood Mapping Program at $400 million annually for each of fiscal years 2018 through 2023.
- S. 1571, Section 202, would require FEMA, as soon as practicable, to modernize the flood mapping inventory for communities for which FIRMS have not been modernized. This section would also require FEMA to use the most up-to-date mapping technology and, in consultation with TMAC, to develop a dynamic, database-derived digital display environment of building-specific flood risk information to store and disseminate flood maps and hazard data, not later than five years after enactment.

Flood Mitigation

Flood insurance can sometimes be seen as if it is the solution to flooding, but insurance does not prevent flooding, it merely makes it possible to recover more rapidly financially after a flood. It is better to avoid being flooded than to receive funding for flood recovery after a disaster. Flood

[226] In FEMA's terminology, an accredited levee is one that FEMA has shown on a FIRM as providing flood risk reduction from at least the 1%-annual-chance flood. A levee cannot be accredited until the certification process is complete. Certification is the process that deals with the design and physical condition of the levee, and is the responsibility of the levee owner or the community in charge of the levee's operation and maintenance. Certification consists of documentation, signed and sealed by a registered professional engineer, that the levee meets the requirements of 44 C.F.R. 65.10; in other words, that the levee meets federal design, construction, maintenance, and operational standards to adequately reduce the risk of flooding from a 1%-annual-chance flood. Non-accredited levee systems are levee systems that do not meet all the requirements outlined in 44 C.F.R. 65.10 along the entire length of the levee system. See FEMA, *Analysis and Mapping Procedures for Non-Accredited Levees – New Approach*, https://www.fema.gov/media-library/assets/documents/33587.

mitigation[227] creates safer communities and can save money for individuals and taxpayers. The importance of FEMA's mitigation programs (which include, but are not limited to, the FMA program) is illustrated by research findings that for every dollar invested by FEMA in flood mitigation between 1993 and 2003, society as a whole saved $7 due to reduced future flood losses.[228] The NFIP encourages communities to adopt and enforce floodplain management regulations such as zoning codes, subdivision ordinances, building codes, and rebuilding restrictions. Internal FEMA studies have found that structures built to FEMA standards experience 73% less damage than structures not built to those standards.[229] FEMA conducted a losses avoided study which reviewed 2,240 of the 6,000 mitigated properties in North Carolina and estimated that those mitigation activities avoided losses of $206 million to $234 million.[230]

Mitigation activities, however, form only a small part of the NFIP activities and are funded entirely by premiums and fees paid by NFIP policyholders. The NFIP offers three programs which encourage communities to reduce flood risk: the Community Rating System (CRS), the Flood Mitigation Assistance Grant Program (FMA), and Increased Cost of Compliance coverage (ICC).

A greater linkage between insurance risk transfer and physical risk reduction measures could help to address concerns about increasing flood risk. By rewarding behavior that reduces risks through pricing, insurance has the potential to incentivize or even require policyholders and communities to address the underlying flood risk. Insurance provisions could also provide incentives to limit flood damage by rewarding well-designed buildings with lower premiums, lower deductibles, or higher coverage limits. However, a recent study of residential flood insurance markets in 25 countries found little evidence of either governments or insurance companies actively encouraging risk reduction by linking the cost of insurance to mitigation activities, with the sole exception of the NFIP through the Community Rating System.[231]

One provision which is in H.R. 2874 and all of the Senate bills discussed in this report relates to the need to provide premium credits for mitigation measures for buildings where standard measures such as elevation are not feasible due to the structural characteristics of the building. This is particularly relevant to older buildings, attached dwelling units such as townhomes, row houses or brownstones, and other multifamily and high-rise residential buildings.

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[227] FEMA defines mitigation as the effort to reduce loss of life and property by lessening the impact of disasters. For more information, see https://www.fema.gov/what-mitigation.

[228] National Institute of Building Sciences, *Natural Hazard Mitigation Saves: 2017 Interim Report,* Washington, DC, 2017, p. 137, http://www.nibs.org/page/ms2_dwnload. Note that the widely quoted figure of $4 saved for every dollar invested is an average for three hazards (earthquake, wind, and flood) and from the 2005 report. In the 2017 report, the overall hazard benefit-cost ratio is 6:1 and the benefit-cost ratio for flood alone is 5:1 to 7:1 for riverine flood and 7:1 for hurricane surge—see Table 2-1 on p. 27 and discussion on pp. 50-57.

[229] U.S. Congress, House Committee on Financial Services, *Flood Insurance Reform: FEMA's Perspective*, Statement of Roy E. Wright, Deputy Associate Administrator, FIMA, 115th Cong., 1st sess., March 8, 2017, H.Hrg.115-BA04-WrightR-20170309 (Washington: GPO, 2017), p. 1.

[230] FEMA, *Draft National Mitigation Investment Strategy for Public Comment*, Washington, DC, January 10, 2018, p. 19, https://www.fema.gov/media-library-data/1515688801146-ef9a42945d292dc6848dc4390dc0b032/Draft-National-Investment-Strategy-for-Public-Comment_Jan2018.pdf.

[231] A. Atreya, S. Hanger, and H. Kunreuther, et al., *A Comparison of Residential Flood Insurance Markets in 25 Countries,* Wharton School, Center for Risk Management and Decision Processes, University of Pennsylvania, Wharton-IIASA-Zurich Working Paper, Philadelphia, PA, June 28, 2015, p. 10, http://opim.wharton.upenn.edu/risk/library/WP2015_FloodInsurancePrograms-25Countries_2015-06-28.pdf.

Provisions Related to Flood Mitigation in H.R. 2874

- Section 113 would require FEMA to offer policyholders a reduction of the risk premium rate for the use of approved actions that mitigate the flood risk of their property, including innovative mitigation techniques that could be deployed on a block or neighborhood scale in dense urban environments and the elevation of mechanical systems such as heating, ventilation, and air conditioning. This would expand on existing authority provided in the law, by specifically requiring FEMA to provide the premium reduction for approved mitigation methods.
- Section 504 would give priority under the FMA program to property owners for direct grants for carrying out mitigation activities that reduce flood damage to extreme repetitive-loss properties, with up to 100% federal cost share subject to availability of funds. This section would also authorize $225 million for each fiscal year for the FMA program, subject to offsetting appropriations. This is a higher amount than was authorized for FY2017.[232] Funding for the FMA program could also be provided by penalties collected for violations of the mandatory purchase requirement and grant funds recouped by FEMA from recipients who did not carry out funded mitigation activities.

Provisions Related to Flood Mitigation in Senate Bills

- S. 1313, Section 201, would reallocate the HFIAA surcharge to help fund flood mitigation programs, including the Pre-disaster Hazard Mitigation Program (PDM) and the FMA program.
- S. 1313, Section 205, would offer an NFIP policyholder a one-time premium credit of not more than $500 if the policyholder submits data and information that is necessary for FEMA to determine the level of flood risk for the property. In most cases this is likely to be used to defray the costs of obtaining an elevation certificate.
- S. 1313, Section 206, would authorize FEMA to offer policyholders a reduction of the risk premium rate that is not less than 10% of that rate for the use of approved actions that mitigate the flood risk of their property, including innovative mitigation techniques for buildings in dense urban environments and the elevation of mechanical systems. This section would also allow an owner of a share of a cooperative building to purchase flood insurance coverage under the NFIP on the same terms as a condominium owner.
- S. 1368, Section 202, would authorize $1 billion for each of the first six fiscal years after the date of enactment to fund the FMA program and requires FEMA to prioritize properties that have suffered repetitive losses; properties which have unaffordable premiums, as determined by FEMA; and properties for which losses exceed the replacement value of the property.
- S. 1368, Section 203, would authorize $500 million for the PDM program for each of the first six full fiscal years after the date of enactment.
- S. 1368, Section 204, would offer an NFIP policyholder a one-time premium credit of not more than $500 for the cost of obtaining an elevation certificate.

[232] P.L. 115-31 authorized FEMA to spend $175.1 million from the National Flood Insurance Fund on the FMA program.

- S. 1368, Section 205, would reallocate the HFIAA surcharge to affordability and mitigation assistance as described in S. 1368, Section 103.[233]
- S. 1368, Section 206, would authorize FEMA to offer policyholders a reduction of the risk premium rate for the use of approved actions that mitigate the flood risk of their property, including any alternative mitigation methods with respect to a multifamily building in an urban area.
- S. 1368, Section 207, would require FEMA to give priority to flood mitigation activities that provide benefits to an entire floodplain or community, or to a portion of such a community.
- S. 1368, Section 422, would require FEMA to appoint a regional coordinator to provide technical assistance to small communities to enable those communities to effectively participate in and benefit from the CRS program.
- S. 1571, Section 104, would authorize $200 million for the PDM program for each of the first six fiscal years after the date of enactment.
- S. 1571, Section 106, would authorize FEMA to offer policyholders a reduction of the risk premium rate for the use of approved actions that mitigate the flood risk of their property, including any alternative mitigation methods with respect to a multifamily building in an urban area. This section would also authorize FEMA to require appropriate public bodies to develop land use and control measures for the repair, restoration or substantial improvement of any mid-rise or high-rise multifamily buildings and to account for those land use and control measures in determining appropriate policy rates.
- S. 1571, Section 107, would require FEMA to appoint a regional coordinator to provide technical assistance to small communities to enable those communities to effectively participate in and benefit from the CRS program, and would authorize to be appropriated such sums as may be necessary to carry this out.

Future Flood Losses

In the future, and in the context of land development, improved flood mapping, and climate change, an increased number of properties will be at risk of flooding. A 2013 report on the impact of climate change and population growth on the NFIP concluded that by 2100, the 1% annual-chance fluvial floodplain area is projected to grow nationally by about 45%.[234] The study found that no significant decreases in floodplain depth or area are anticipated for any region of the nation at the median estimates; in fact, median flows may increase even in areas that are expected to become drier on average. In the populated areas of most interest to the NFIP, about 30% of these increases may be attributed to increased runoff caused by the increase in impermeable land surfaces caused by population growth and development, while the remaining 70% represents the influence of climate change.[235] The implication of this is that, on a national basis, approximately 13.5% of the growth in the fluvial SFHA is likely to be due to population growth and would occur

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[233] See the "Provisions Related to Affordability in Senate Bills" section of this report.

[234] AECOM, in association with Michael Baker Jr., Inc., and Deloitte Consulting, LLP, *The Impact of Climate Change and Population Growth on the National Flood Insurance Program Through 2100*, Prepared for Federal Insurance and Mitigation Administration, FEMA, June 2013, pp. 5-1-5-28, http://www.adaptationclearinghouse.org/resources/the-impact-of-climate-change-and-population-growth-on-the-national-flood-insurance-program-through-2100.html.

[235] Ibid.

even without any climate change. For the coastal environment, the typical increase in the coastal SFHA is projected to be about 55% by 2100.[236] In addition, modeling indicated that there would be increased variability in expected total losses in any given year, which may be greater than the NFIP's current funding borrowing structure accommodates.[237]

Coastal flooding is not only a concern for the future; many areas are already experiencing 'nuisance flooding' from minor tidal flooding or rainstorms. The frequency and duration of minor tidal flooding has increased significantly in recent decades along many U.S. coasts.[238] While not catastrophic, such flooding can significantly disrupt normal commerce and activity, and the seemingly minor inconveniences and local economic losses from each event can have a cumulative effect that results in considerable hidden costs to residents and businesses.

Flooding Outside the SFHA

Currently the NFIP distinguishes between the SFHA (1%-annual-chance-floodplain) and the area beyond the SFHA, yet over 20% of NFIP claims are for properties outside SFHAs.[239] Recent floods, such as the floods in South Carolina in October 2015 and in Louisiana in August 2016, have mainly affected properties which were not mapped in SFHAs. The SFHA boundary can create a false belief that flood risk changes abruptly at the line, and that properties outside the SFHA are safe. In reality, flood risk varies both inside and outside the SFHA. Flood maps that depict the spectrum of risk that properties face rather than focusing only on the boundary of the SFHA would avoid the current "in or out" classification created by the SFHA designation.[240]

In addition to finding a way to communicate that flood risk is not binary but instead varies spatially, future flood maps may also need to find a way to communicate temporal variation in flood risk. Insurance policies are based on FIRMs, which are a 'snapshot' of the flood risk at the time of mapping; they are not an indication of the flood risk decades into the future and thus are not necessarily the best guide for future land-use decisions. The TMAC recommended that FEMA adapt its flood mapping to allow for population growth and development both in and outside the floodplain and increased future flood risk.[241] It argued that if technical credible flood hazard information is not available for communities, the federal government will always be looked to for assistance after a disaster and this assistance is likely to be more costly than providing technically credible flood hazard data would have been.[242] If FEMA is to provide maps which are fit-for-purpose to identify future flood risks, TMAC maintains, this will require both additional funding for mapping and higher-quality data, and a different approach to account for a potential future

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[236] Ibid.

[237] Ibid.

[238] Ezer, Tal and Atkinson, Larry P., "Accelerated Flooding Along the US East Coast: On the Impact of Sea Level Rise, Tides, Storms, the Gulf Stream, and the North Atlantic Oscillation," *Earth's Future*, vol. 2, no. 8 (August 11, 2014), pp. 362-382.

[239] GAO, *Flood Insurance: Comprehensive Reform Could Improve Solvency and Enhance Resilience*, GAO-17-425, April 2017, p. 29, https://www.gao.gov/products/GAO-17-425.

[240] National Research Council of the National Academies, *Affordability of National Flood Insurance Program Premiums: Report 2*, 2016, p. 74, at http://www.nap.edu/catalog/21848/affordability-of-national-flood-insurance-program-premiums-report-2.

[241] TMAC, *National Flood Mapping Program Review*, June 2016, p. 5, https://www.fema.gov/media-library/assets/documents/111853.

[242] TMAC, *National Flood Mapping Program Review*, June 2016, p. 5, https://www.fema.gov/media-library/assets/documents/111853.

that is not necessarily based on the past.[243] For example, New York City and FEMA are planning a new map product to be used for planning and building purposes to better account for future flood risk due to climate change and sea level rise. Flood insurance will continue to be priced against FIRMs that depict current flood risk.[244]

Future Catastrophic Events

Floodplains and coastal areas across the United States will likely continue to be inhabited and sustain damages from floods, some of which may be catastrophic. Flood is different from many other risks in that the distribution of potential losses is skewed in a way that certain low frequency, high magnitude events may have the potential to exceed the aggregate capacity of private insurers and render the market insolvent. A large pool of flood risk does not result in a normally distributed portfolio of risks over the long run. Flood risks are highly correlated: when a large flood occurs, many geographically adjacent properties are affected. FEMA's report to Congress on privatization of the NFIP concluded that it is difficult to imagine a practical system of flood insurance in which there is not some level of government involvement in the flood risk financing chain. They argued that when low-frequency, high-magnitude events occur with a portfolio of highly correlated risks, the government will ultimately play a role in paying for the economic costs associated with a catastrophic flood, whether or not it chooses to underwrite the risk.[245]

Although the NFIP has always had borrowing authority from Congress, a robust approach has not been developed by which the NFIP can repay catastrophic flood losses, although the program has taken steps in this direction with the BW-12 reserve fund assessment, the HFIAA surcharge, and the purchase of reinsurance. However, the current reinsurance purchases would not compensate for a Katrina-level storm. This is an important consideration for reauthorization because events like Hurricane Katrina and Hurricane Sandy are not outside the expected range of NFIP losses. FEMA predicted in March 2017 that a single storm that results in a loss to the NFIP of the size that occurred in Hurricane Katrina ($16.3 billion) had 1%-2% chance of occurring in any given year, while a single storm that results in a loss as large as the one that occurred in Hurricane Sandy had a 4%-5% chance of occurring in any given year.[246] FEMA expected to have another loss year like those within the next decade. In fact, such losses occurred much sooner than anticipated, with Hurricanes Harvey, Irma, and Maria. The 2017 hurricane season was the first time that the United States had ever been hit by three category four hurricanes, and was the second-largest claims year in the NFIP's history—second only to the 2005 hurricane season. Although it is too soon to estimate the total flood claims from the 2017 hurricane season, as of June 30, 2018, the NFIP had paid $10.426 billion in claims in response to Hurricanes Harvey, Irma, and Maria.[247] Total NFIP claims for Hurricane Harvey are expected to be between $8.7

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243 Technical Mapping Advisory Council (TMAC), *Future Conditions Risk Assessment and Modeling*, December 2015, p. 26, https://www.fema.gov/media-library-data/1448469075684-d54e851ba84ab6b998ae9cbeb6d42eac/TMAC_2015_Future_Conditions_Report-INTERIM_508_11252015.pdf.

244 FEMA, *Mayor De Blasio and FEMA Announce Plan to Revise NYC's Flood Maps*, October 17, 2016, at https://www.fema.gov/news-release/2016/10/17/mayor-de-blasio-and-fema-announce-plan-revise-nycs-flood-maps.

245 FEMA, *National Flood Insurance Program Report to Congress on Reinsuring NFIP Insurance Risk and Options for Privatizing the NFIP*, August 13, 2015, p. 56, http://www.floods.org/ace-files/documentlibrary/2012_NFIP_Reform/Reinsuring_NFIP_Insurance_Risk_and_Options_for_Privatizing_the_NFIP_Report.pdf.

246 U.S. Congress, House Committee on Financial Services, *Flood Insurance Reform: FEMA's Perspective*, Statement of Roy E. Wright, Deputy Associate Administrator, FIMA, 115th Cong., 1st sess., March 8, 2017, H.Hrg.115-BA04-WrightR-20170309 (Washington: GPO, 2017), p. 3.

247 Email correspondence from FEMA Congressional Affairs staff, July 12, 2018.

billion and $9.01 billion, for Hurricane Irma between $1.003 billion and $1.074 billion, and for Hurricane Maria between $25 million and $34 million.[248]

The National Research Council affordability report considered the option of forgiving all or part of the NFIP debt within a larger affordability context. In this report, the NRC suggested that after forgiving all or part of the NFIP debt, Congress could designate the Treasury as reinsurer for the NFIP as was the case in the original legislation. It suggested that Congress could, for example, explicitly state that when the total annual losses in the NFIP exceeded some designated threshold (for example, $2 billion to $6 billion, perhaps on the basis of the average of non-catastrophic historical claims years), the Treasury could provide funds for the NFIP to honor all of the claims. The funds could be provided through the Disaster Relief Fund, and, if needed, by an emergency supplemental budget. Taken together, it argued, those two actions could result in lower NFIP premiums, enhance affordability, and in turn lead to less spending on disaster assistance. Congress would incur occasional costs by designating the Treasury as the source of funds for payment of claims above the defined threshold in high-loss years but would not need to draw on the Treasury each year to provide assistance payments to policyholders who face unaffordable premiums.[249]

The American Academy of Actuaries (AAA) argued that neither private insurers nor government entities can fully absorb any level of catastrophic loss and continue to operate. It noted that insurance systems have a trigger for socializing risk of extreme events, such as a solvency standard based on a particular event (for example, the 200-year flood), beyond which mechanisms like guaranty funds pay losses.[250] In the case of the NFIP, the premiums charged to policyholders would require a volatility loading large enough to service and eventually repay any debt generated by catastrophic debts over a multidecadal time horizon. The AAA report suggested that prospectively addressing this first requires recognition that there is a maximum amount of short-term loss that can be fully funded by NFIP revenue. One approach would be to establish a sufficiency standard for the loss level that the NFIP revenue would be expected to fund fully. For example, this could be expressed as a maximum loss amount per catastrophic event, determined on the basis of an acceptable annual probability, or a maximum aggregate amount of annual loss. Any losses exceeding the defined sufficiency standard incurred by the NFIP could be agreed to be funded publicly. The AAA report argued that private insurers are held to an analogous standard, after which state guarantee funds reimburse policyholders for claims from insolvent private insurers using funds from assessments paid by solvent insurers. It concluded that adopting an explicit standard of this type for the NFIP would provide clarity as to what its funding sources should be and give taxpayers an understanding of when public contributions to NFIP finances are appropriate.[251]

The NFIP currently has no financial structure in place, other than borrowing from the Treasury, to guarantee it can pay claims from a catastrophic loss year. To ensure the future financial solvency of the NFIP after catastrophic events, FEMA has suggested that a systematic analysis may

[248] Email from FEMA Congressional Affairs staff, March 19, 2018. These are conservative numbers that do not include Loss Adjustment Expense (which would add approximately 5.3%), supplemental claims payments, or Increased Cost of Compliance expenditures.

[249] National Research Council of the National Academies, *Affordability of National Flood Insurance Program Premiums: Report 1*, 2015, pp. 110-111, at http://www.nap.edu/catalog/21709/affordability-of-national-flood-insurance-program-premiums-report-1.

[250] American Academy of Actuaries Flood Insurance Work Group, *The National Flood Insurance Program: Challenges and Solutions*, April 2017, p. 28, p. 31, and p. 80.

[251] Ibid.

consider the costs and benefits of using the reserve fund, borrowing authority, reinsurance, other forms of risk transfer, and perhaps a Treasury backstop at some catastrophic loss level.[252] It may also include a metric for communicating the resiliency of the system to different levels of catastrophic events, in order to define the scenarios that the system can sustain and those it cannot.[253]

Concluding Comments

GAO concluded that the sequence of actions taken by Congress is important; for example, requiring full-risk rates for all policyholders and expanding the mandatory purchase requirement would create affordability concerns which would warrant having an affordability assistance program already in place. According to GAO, when addressing barriers to private sector involvement, it would be important to protect NFIP's flood resilience activities at the same time; and addressing the outstanding debt would be best accompanied by premium rate reform to help reduce the likelihood of a recurrence of another unpayable debt buildup.[254]

As Congress considers a long-term reauthorization of the NFIP, a central question may be who should bear the costs of floodplain occupancy in the future. The NRC study on affordability concluded that the costs of floods can be borne in three possible ways, or in some combination of them. The first is that individual policyholders (whether NFIP or private) bear location cost in the form of insurance premiums paid and damages falling within policy deductible amounts. The second is that the federal taxpayers bear floodplain location costs in several possible ways: if the federal government develops a premium assistance program, or makes up for NFIP premium revenue shortfalls, or pays for pre-flood mitigation, or makes post-flood disaster assistance payments to individual households. Third, property owners and other floodplain or coastal zone inhabitants bear the costs for losses that are uninsured or otherwise uncompensated.[255] While there are many ways to finance flood risk, the majority of the cost will likely ultimately be allocated across these three stakeholder groups: policyholders (the insured), government, and uninsured flood victims, requiring potentially difficult policy choices by Congress.

[252] FEMA, *National Flood Insurance Program Report to Congress on Reinsuring NFIP Insurance Risk and Options for Privatizing the NFIP*, August 13, 2015, p. 88, http://www.floods.org/ace-files/documentlibrary/2012_NFIP_Reform/Reinsuring_NFIP_Insurance_Risk_and_Options_for_Privatizing_the_NFIP_Report.pdf.

[253] Ibid.

[254] GAO, *Flood Insurance: Comprehensive Reform Could Improve Solvency and Enhance Resilience*, GAO-17-425, April 2017, p. 43, https://www.gao.gov/products/GAO-17-425.

[255] National Research Council of the National Academies, *Affordability of National Flood Insurance Program Premiums: Report 2*, 2016, p. 12, http://www.nap.edu/catalog/21848/affordability-of-national-flood-insurance-program-premiums-report-2.

Table 1. Provisions in NFIP Reauthorization Legislation in the 115th Congress

H.R. 2874	S. 1313	S. 1368	S. 1571
Premiums and Surcharges			
§102. Annual limitation on premium increases. §105. Consideration of coastal and inland locations in premium rates. §111. Use of replacement cost in determining premium rates. §112. Cap on premiums. §301. Use of other risk assessment tools in determining premium rates. §502. Adjustments to HFIAA surcharge. §503. National Flood Insurance Reserve Fund compliance.	§207. Home structure values. §209. Coverage limits.	§102. Limitation on increases of premiums, surcharges, and mapping fees. §104. Coverage expansion.	§301. Replacement cost in determining premium rates.
Debt and Borrowing			
		§301. Forbearance on NFIP interest payments.	
Affordability			
§103. Flood insurance affordability program.	§208. Affordability vouchers. *§202. Disclosure with respect to the affordability standard.*	§103. Means-tested mitigation and affordability assistance.	
Increasing Participation			
	§102. Expanded flood insurance participation study.	§410. Study on participation rates.	§303. Participation studies.
Private Flood Insurance			
§201. Private flood insurance.	§101. Risk transfer.	§302. Cap on WYO compensation.	§302. Risk transfer options.

H.R. 2874	S. 1313	S. 1368	S. 1571
§202. Opt-out of mandatory coverage requirement for commercial properties.	§401. Use of private flood insurance to satisfy mandatory purchase requirement.	§304. Vendor costs; transparency.	
§203. Elimination of non-compete requirement.	§402. Provision of private flood insurance by WYO companies.	*§424. Amendments to Financial Assistance/ Subsidy Arrangement.*	
§204. Public availability of program information.	§403. Availability of NFIP claims data. §602(b)(2)(d). Publication of claims data.		
§506. Pay for performance and streamlining costs and reimbursement.			
§511. Risk transfer requirement.			
Properties with Multiple Losses			
§402. Community accountability for repetitively flooded areas.			§101. Community preparation for repetitively flooded areas.
§504. Designation and treatment of multiple-loss properties.			
§505. Elimination of coverage for properties with excessive lifetime claims.			
Increased Cost of Compliance Coverage			
§403. Increased Cost of Compliance (ICC) coverage.	§204. Increased cost of compliance.	§201. ICC expansion.	§103. Increased cost of compliance.
Administrative Reforms: Payment and Purchase Requirements			
§106. Monthly installment payment of premiums.	*§210. Monthly installment payment of premiums.*	*§415. Monthly installment payment of premiums.*	
§205. Refund of premiums upon cancellation of policy because of replacement with private flood insurance.			
§508. Satisfaction of mandatory purchase requirement in states allowing all-perils policies.			

H.R. 2874	S. 1313	S. 1368	S. 1571
§509. Flood insurance purchase requirements.			
Administrative Reform: Disclosure, Information, Claims, Appeals, Administration, Oversight			
§104. Disclosure of premium methodology.	§203. Flood risk disclosure.	*§401. Earth movement clarification.*	§105. Disclosure of flood risk information upon transfer of property.
§107. Enhanced clear communication of flood risks.	*§602(a). Final engineering reports, claims adjustment reports.*	*§402. Treatment of basements.*	
§108. Availability of flood insurance information upon request.	*§602(b)(2)(a). Adjustment and payment of claims.*	*§403. Mold damage clarification.*	
§109. Disclosure of flood risk upon transfer of property.	*§602(b)(2)(c). Annual review of each private entity participating in NFIP.*	*§404. Appeal of decisions relating to flood insurance coverage.*	
§116. Federal Flood Insurance Advisory Committee.	*§602(b)(2)(f). Earth movement.*	*§405. Accountability for underpayments by WYO companies.*	
§117. Interagency guidance on compliance.		*§406. Policyholder right to know.*	
§501. Independent actuarial review.		*§411. Federal Flood Insurance Advisory Committee.*	
§510. Clarifications; deadlines for approval of claims.		*§412. Authority to terminate contractors and vendors.*	
§602. Enhanced policyholder appeals process rights.		*§413. Easing proof of loss requirements.*	
§603. Deadline for approval of claims.		*§414. Elevation certificates.*	
§606. Technical assistance reports.		*§418. Engineer oversight and certification.*	
§607. Improved disclosure requirement for standard flood insurance policies.		*§419. Engineer reports.*	
§608. Reserve Fund amounts.		*§420. Improved training of agents and adjusters.*	

H.R. 2874	S. 1313	S. 1368	S. 1571
§609. Sufficient staffing for Office of Flood Insurance Advocate.		*§421. Agent Advisory Council.*	
§610. Limited exemption for disaster or catastrophe claims adjusters.		§423. Improved disclosure requirements.	
Administrative Reform: Fraud and Litigation			
§601. Penalties for fraud and false statements in the NFIP.	*§602(b)(1)(b). Judicial review.*	*§407. Increasing statute of limitations for lawsuits.*	
§604. Litigation process oversight and reform.	*§602(b)(2)(e). Oversight of litigation.*	*§408. Attorney fee shifting.*	
§605. Prohibition on hiring disbarred attorneys.		*§409. DOJ defense against policyholder lawsuits.*	
Administrative Reforms: Pilot Programs and Studies			
§110. Voluntary community-based flood insurance pilot program.	*§303. Agreed Value Flood Protection Pilot Program.*	*§105. Additional cover for business interruption.*	*§304. Study regarding coverage for business interruption.*
§114. Study of flood insurance coverage for units in cooperative housing.	*§304. Use of agreed value flood protection to satisfy requirement to purchase flood insurance to receive a mortgage loan.*	*§416. Pilot program for pre-existing conditions.*	
§115. Pilot program for properties with pre-existing conditions.	*§305. Agreed Value Pilot Program Reserve Fund.*		
§118. GAO study of claims adjustment practices.	*§405. WYO Risk Sharing Pilot Program.*		
§119. GAO study of flood insurance coverage treatment of earth movement.	*§601. Reports to Congress.*		
§206. GAO study of flood damage savings accounts.			
§207. Demonstration program for flood damage savings accounts.			
§512. GAO study of simplification of NFIP.			

H.R. 2874	S. 1313	S. 1368	S. 1571
Floodplain Mapping			
§302. Appeals regarding existing flood maps.	§404. Fees and surcharges for private flood insurance policies.	§204. National Flood Mapping Program.	§201. Reauthorization of mapping program.
§303. Appeals and publications of projected Special Flood Hazard Areas.	§501. Reauthorization of National Flood Mapping Program.	§208. New zone for levee-impacted areas.	§202. National Flood Mapping Program improvements.
§304. Communication and outreach regarding map changes.	*§502. Mapping standards and guidelines for non-governmental entities.*	§209. Appeals regarding existing flood maps.	
§305. Sharing and use of maps and data.	§503. Use of high-resolution mapping technology.	§303. Taxpayer protection.	
§306. Community flood maps.	§504. Protected areas.		
	§505. Coastal flood models.		
Flood Mitigation			
§113. Premium rates for certain mitigated properties.	§201. Use of premium surcharges.	§202. Flood mitigation assistance prioritization and authorization.	§104. Pre-Disaster Hazard Mitigation Program authorization.
§401. Provision of Community Rating System premium credits to maximum number of communities practicable.	§205. Property risk data.	§203. Pre-disaster Hazard Mitigation Program authorization.	§106. Multifamily mitigation.
§504. Funding: authorization of appropriations for Flood Mitigation Assistance Grant Program.	§206. Mitigation provisions.	§205. Reallocation of premium surcharges.	§107. Technical assistance.
		§206. Multifamily mitigation.	
		§207. Sense of Congress regarding flood mitigation activities.	
		§422. Efficient use of mitigation dollars.	

Source: CRS analysis of legislation from http://www.congress.gov.

Notes: H.R. 2874 as passed by the House. S. 1313, S. 1368, and S. 1571 as introduced. The provisions listed in italics are not discussed in the report.

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