



**Congressional  
Research Service**

Informing the legislative debate since 1914

---

# **The National Flood Insurance Program: Selected Issues and Legislation in the 116<sup>th</sup> Congress**

Updated December 23, 2019

**Congressional Research Service**

<https://crsreports.congress.gov>

R46095



# The National Flood Insurance Program: Selected Issues and Legislation in the 116<sup>th</sup> Congress

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 September 30, 2020 (P.L. 116-93). 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 September 30, 2020: (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.

Issues that Congress may consider in the context of reauthorization include (1) NFIP solvency and debt; (2) premium rates and surcharges; (3) affordability of flood insurance; (4) increasing participation in the NFIP; (5) the role of private insurance and barriers to private sector involvement; (6) non-insurance functions of the NFIP such as floodplain mapping and flood mitigation; and (7) 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 a 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.

The House Financial Services Committee reported a bill for the long-term reauthorization of the NFIP, the National Flood Insurance Program Reauthorization Act of 2019 (H.R. 3167), on October 28, 2019. One bill has been introduced in the Senate, on July 18, 2019, to reauthorize the expiring provisions of the NFIP: the National Flood Insurance Program Reauthorization and Reform Act of 2019 (S. 2187), with a House companion bill (H.R. 3872) introduced on July 22, 2019.

This report identifies issues for congressional consideration as part of the possible reauthorization of the NFIP and outlines selected provisions that relate to the issues listed above in the bills to reauthorize the NFIP in the 116<sup>th</sup> Congress (H.R. 3167 and S. 2187).

**R46095**

December 23, 2019

**Diane P. Horn**

Analyst in Flood Insurance  
and Emergency  
Management

**Baird Webel**

Specialist in Financial  
Economics

# Contents

Introduction .....	1
Expiration of Certain NFIP Authorities.....	2
Legislative Action in the 116 <sup>th</sup> Congress.....	2
Selected Issues for Consideration by the 116 <sup>th</sup> Congress .....	3
NFIP Lapse in Authorization.....	4
Provisions Related to NFIP Reauthorization in H.R. 3167.....	4
Provisions Related to NFIP Reauthorization in S. 2187.....	4
NFIP Debt and Solvency of the Program.....	4
NFIP Premiums, Fees, and Surcharges .....	5
Premium Subsidies and Cross-Subsidies .....	7
Risk Rating 2.0 .....	9
Provisions Related to NFIP Premiums, Fees, and Surcharges in H.R. 3167 .....	12
Provisions Related to NFIP Premiums, Fees, and Surcharges in S. 2187.....	13
NFIP Borrowing from Treasury .....	14
Provisions Related to NFIP Debt in S. 2187.....	16
Increasing Participation in the NFIP .....	16
The Mandatory Purchase Requirement.....	16
Provisions Related to the Mandatory Purchase Requirement in H.R. 3167 .....	17
Provisions Related to the Mandatory Purchase Requirement in S. 2187.....	17
NFIP Participation Rates.....	18
Provisions Related to Increasing Participation in H.R. 3167.....	19
Provisions Related to Increasing Participation in S. 2187 .....	19
Affordability of Flood Insurance.....	19
Provisions Related to Affordability in H.R. 3167.....	21
Provisions Related to Affordability in S. 2187 .....	22
The Role of Private Insurance in U.S. Flood Coverage .....	23
Barriers to Private Sector Involvement.....	24
Reinsurance.....	25
Provisions Related to Private Insurance in H.R. 3167.....	26
Provisions Related to Private Insurance in S. 2187 .....	26
Flood Mapping.....	27
Funding for Floodplain Mapping.....	29
Provisions Related to Flood Mapping in H.R. 3167 .....	30
Provisions Related to Flood Mapping in S. 2187 .....	31
Flood Mitigation.....	32
Provisions Related to Flood Mitigation in H.R. 3167.....	35
Provisions Related to Flood Mitigation in S. 2187 .....	37
Increased Cost of Compliance (ICC) Coverage.....	38
Provisions Related to Increased Cost of Compliance Coverage in H.R. 3167 .....	39
Provisions Related to Increased Cost of Compliance Coverage in S. 2187.....	39
NFIP Modernization and Administrative Reform .....	40
Provisions Related to Disclosure in H.R. 3167.....	40
Provisions Related to Disclosure in S. 2187 .....	41
Provisions Related to Studies of the NFIP in H.R. 3167 .....	41
Provisions Related to Studies of the NFIP in S. 2187.....	41
Future Flood Losses .....	41
Flooding Outside the SFHA.....	43

Future Catastrophic Events ..... 43  
Concluding Comments ..... 45

**Tables**

Table 1. Provisions in NFIP Reauthorization Legislation ..... 46

**Contacts**

Author Information..... 49

## Introduction

Congress is currently considering legislation for a long-term reauthorization of the National Flood Insurance Program (NFIP). The last long-term reauthorization of the NFIP was by the Biggert-Waters Flood Insurance Reform Act of 2012 (hereinafter BW-12),<sup>1</sup> from July 6, 2012, to September 30, 2017. Congress amended elements of BW-12, but did not extend the NFIP's authorization further, in the Homeowner Flood Insurance Affordability Act of 2014 (HFIAA).<sup>2</sup> Since the end of FY2017, 15 short-term NFIP reauthorizations have been enacted. The NFIP is currently authorized until September 30, 2020.<sup>3</sup>

The NFIP is managed by the Federal Emergency Management Agency (FEMA). 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 Baird Webel.

The NFIP is the primary source of flood insurance coverage for residential properties in the United States. As of December 2019, the NFIP had more than 5 million flood insurance policies providing over \$1.3 trillion in coverage. The program collects about \$4.6 billion in annual revenue from policyholders' premiums, fees, and surcharges.<sup>4</sup> Over 22,000 communities in 56 states and jurisdictions participate in the NFIP.<sup>5</sup> 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.<sup>6</sup>

Floods are the most common natural disaster in the United States. All 50 states, plus the District of Columbia (DC), Puerto Rico, Guam, American Samoa, the U.S. Virgin Islands, and the Northern Mariana Islands have experienced flood events since May 2018.<sup>7</sup> Total U.S. flood losses in 2016 were about \$28 billion. 2017 was the most costly year for U.S. flood losses on record, with total losses estimated at \$276.3 billion. The total for the 2017 hurricanes significantly exceeded the previous record of \$214.8 billion (CPI-adjusted), from the 2005 hurricane season. Total U.S. flood losses for 2018 are estimated at \$49.4 billion.<sup>8</sup> All of these losses are greater than

---

<sup>1</sup> Title II of P.L. 112-141.

<sup>2</sup> P.L. 113-89.

<sup>3</sup> P.L. 116-93.

<sup>4</sup> Federal Emergency Management Agency (FEMA), *Watermark, FY2019, Third Quarter*, <https://www.fema.gov/media-library-data/1571176580547-ef8862488673f492cda24f37fe7f0189/FIMAWatermarkFY1Q3FINAL4.pdf>, and email correspondence from FEMA Congressional Affairs staff, August 5, 2019.

<sup>5</sup> 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>.

<sup>6</sup> Email correspondence from FEMA Congressional Affairs staff, August 2, 2018.

<sup>7</sup> Email correspondence from FEMA Congressional Affairs staff, August 5, 2019.

<sup>8</sup> NOAA National Centers for Environmental Information, *Billion-Dollar Weather and Climate Disasters: Table of Events*, <https://www.ncdc.noaa.gov/billions/events/US/2018>. Note that the figures for hurricane losses include losses due to wind damage as well as flood damage.

the \$20.3 billion annual average flood losses estimated by the Congressional Budget Office in April 2019.<sup>9</sup>

## Expiration of Certain NFIP Authorities

The statute for the NFIP does not contain a comprehensive expiration, termination, or sunset provision for the whole of the program. Rather, the NFIP has multiple different legal provisions that generally tie to the expiration of key components of the program.

Unless reauthorized or amended by Congress, the following will occur after September 30, 2020:

- The authority to provide *new* flood insurance contracts will expire.<sup>10</sup> Flood insurance contracts entered into before the expiration would continue until the end of their policy term of one year.
- The authority for NFIP to borrow funds from the Treasury will be reduced from \$30.425 billion to \$1 billion.<sup>11</sup>

Other activities of the program would technically remain authorized following September 30, 2020, such as the issuance of Flood Mitigation Assistance (FMA) grants.<sup>12</sup> However, the expiration of the key authorities described above would have varied, generally serious effects on these remaining NFIP activities.

## Legislative Action in the 116<sup>th</sup> Congress

The House Financial Services Committee amended and ordered reported a bill for the long-term reauthorization of the NFIP, the National Flood Insurance Program Reauthorization Act of 2019 (H.R. 3167), on June 11, 2019.<sup>13</sup> H.R. 3167 was reported, as amended, on October 28, 2019 (H.Rept. 116-262, Part 1). H.R. 3167 would reauthorize the NFIP until September 30, 2024. One bill has been introduced in the Senate, on July 18, 2019, to reauthorize the expiring provisions of the NFIP, the National Flood Insurance Program Reauthorization and Reform Act of 2019 (S. 2187),<sup>14</sup> with a companion bill in the House, H.R. 3872. These bills have not yet been considered by the committees of jurisdiction. S. 2187 and H.R. 3872 would also reauthorize the NFIP until September 30, 2024.

The remainder of this report will summarize relevant background information and proposed changes to selected areas of the NFIP in H.R. 3167 and S. 2187. 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. The provisions in H.R. 3167 and S. 2187 are listed in **Table 1** at the end of the report.

---

<sup>9</sup> Congressional Budget Office (CBO), *Expected Costs of Damage From Hurricane Winds and Storm-Related Flooding*, 55019, April 2019, pp. 3-4, <https://www.cbo.gov/publication/55019>.

<sup>10</sup> 42 U.S.C. §4026.

<sup>11</sup> 42 U.S.C. §4016(a).

<sup>12</sup> See 42 U.S.C. §4104c and 42 U.S.C. §4104d.

<sup>13</sup> See “House panel backs flood insurance reauthorization, other bills,” *Congressional Quarterly*, June 12, 2019, <http://www.cq.com/doc/committees-20190612418877?1&search=GZh3c5B0>.

<sup>14</sup> H.R. 3872 was introduced on July 22, 2019.

## Selected Issues for Consideration by the 116<sup>th</sup> Congress

In a 2017 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.<sup>15</sup>

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 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.<sup>16</sup> 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.<sup>17</sup>

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.<sup>18</sup>

### NFIP Issues for Consideration by Congress Discussed in This Report

NFIP Debt and Solvency of the Program  
Premium Subsidies and Cross-Subsidies  
Increasing Participation in the NFIP  
Affordability of Flood Insurance  
The Role of Private Insurance in U.S. Flood Coverage  
Flood Mapping  
Flood Mitigation  
Future Flood Losses

<sup>15</sup> Government Accountability Office (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>.

<sup>16</sup> 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)).

<sup>17</sup> 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>.

<sup>18</sup> National Research Council of the National Academies, *Affordability of National Flood Insurance Program Premiums: Report 1*, 2015, p. 3, <http://www.nap.edu/catalog/21709/affordability-of-national-flood-insurance-program-premiums-report-1>.

## NFIP Lapse in Authorization

On December 21, 2018, Congress passed a stand-alone reauthorization bill, the National Flood Insurance Program Extension Act,<sup>19</sup> to ensure that NFIP did not lapse during the funding gap that led to a partial government shutdown from December 21, 2018, to January 25, 2019. However, on December 26, 2018, FEMA announced changes to the operation of the NFIP in response to the shutdown, advising Write-Your-Own (WYO) companies to suspend sales operations,<sup>20</sup> including the sale of new policies and the renewal of existing policies. FEMA's reason for suspending sales operations, despite the reauthorization of the NFIP, was that the WYO companies were entitled to a fee from the sale or renewal of flood insurance policies and that such a fee may be considered an impermissible funding obligation during a lapse in annual appropriations.<sup>21</sup> Following protests from a number of congressional offices, the insurance industry, and the real estate industry,<sup>22</sup> on December 28, 2018, FEMA rescinded the guidance and directed all NFIP insurers to resume normal operations immediately, advising that the NFIP would be considered operational since December 21, 2018, without interruption.<sup>23</sup> Both H.R. 3167 and S. 2187 include a provision to reduce the impact of a future government shutdown on NFIP operations.

### Provisions Related to NFIP Reauthorization in H.R. 3167

- Section 101 would allow for a retroactive effective date in the event of a lapse in appropriations of the NFIP.

### Provisions Related to NFIP Reauthorization in S. 2187

- Section 101 would allow for continuous operation during any lapse in appropriations, with a provision that amounts in the Reserve Fund may be credited to the National Flood Insurance Fund (NFIF) to enter into and renew contracts for flood insurance.

## 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.<sup>24</sup> Throughout its history, the NFIP has been asked to set premiums that are

---

<sup>19</sup> P.L. 115-396.

<sup>20</sup> For a discussion of Write-Your-Own (WYO) companies, see “The Role of Private Insurance in U.S. Flood Coverage” in this report.

<sup>21</sup> FEMA, *FEMA Statement on the Effects of a Lapse of Appropriation for the NFIP*, Release Number HQ-18-179, Washington, DC, December 27, 2018, <https://www.fema.gov/news-release/2018/12/27/fema-statement-effects-lapse-appropriation-nfip>.

<sup>22</sup> Zoe Sagalow, “FEMA Relents on Flood Insurance,” *Roll Call*, December 28, 2019.

<sup>23</sup> FEMA, *FEMA Resumes Selling Flood Insurance Policies During Appropriations Lapse*, Release Number HQ-18-180, Washington, DC, December 28, 2018, <https://www.fema.gov/news-release/2018/12/28/fema-resumes-selling-flood-insurance-policies-during-appropriations-lapse>.

<sup>24</sup> 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.<sup>25</sup>

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.<sup>26</sup> 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.<sup>27</sup>

The Congressional Budget Office analysis of H.R. 3167 estimated that enacting the changes that are not related to extending the program would increase direct spending by \$678 million over the 2020-2029 period.<sup>28</sup>

### NFIP Premiums, Fees, and Surcharges

As of June 2019, the written premium on just over 5 million policies in force was \$3.5 billion, with an additional \$1.09 billion from fees and surcharges.<sup>29</sup> 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.<sup>30</sup> The amount of the Federal Policy Fee is set by FEMA and can increase or decrease year to year. Since October 2017, the FPF has been \$50 for Standard Flood Insurance Policies (SFIPs), \$25 for Preferred Risk Policies (PRPs),<sup>31</sup> and \$25 for contents-only policies.<sup>32</sup> 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

---

<sup>25</sup> 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>.

<sup>26</sup> 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>.

<sup>27</sup> Ibid.

<sup>28</sup> CBO, H.R. 3167, *the National Flood Insurance Program Reauthorization Act of 2019*, Cost Estimate 55698, Washington, DC, October 4, 2019, p. 5, <https://www.cbo.gov/publication/55698>.

<sup>29</sup> For full statistics, including breakdown by states, see FEMA’s website at <https://nfipservices.floodsmart.gov/home/reports>.

<sup>30</sup> 42 U.S.C. §4014(a)(1)(B)(iii).

<sup>31</sup> 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 National Flood Insurance Program (NFIP) communities. See FEMA, *Flood Insurance Manual, How to Write: Preferred Risk Policy*, Revised April 2019, p. 3-34, [https://www.fema.gov/media-library-data/1555526545972-7169ef09aba2f9a043c638064ec84025/3\\_how\\_to\\_write\\_508\\_apr2019.pdf](https://www.fema.gov/media-library-data/1555526545972-7169ef09aba2f9a043c638064ec84025/3_how_to_write_508_apr2019.pdf).

<sup>32</sup> See FEMA, *Flood Insurance Manual, How to Write: Preferred Risk Policy*, Revised April 2019, p. 3-32, [https://www.fema.gov/media-library-data/1555526545972-7169ef09aba2f9a043c638064ec84025/3\\_how\\_to\\_write\\_508\\_apr2019.pdf](https://www.fema.gov/media-library-data/1555526545972-7169ef09aba2f9a043c638064ec84025/3_how_to_write_508_apr2019.pdf).

catastrophic disasters.<sup>33</sup> By law, FEMA is required to maintain a reserve ratio of 1% of the total loss exposure through the reserve fund assessment.<sup>34</sup> As of June 2019, the amount required for the reserve fund ratio was approximately \$13.16 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 June 2019 figures, not less than approximately \$986.8 million each year). The reserve fund assessment has increased from its original status, in October 2013, of 5% on all SFIPs and 0% on PRPs.<sup>35</sup> Since April 2016, FEMA has charged every NFIP policy a reserve fund assessment equal to 15% of the premium.<sup>36</sup> 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.<sup>37</sup>

In addition to the reserve fund assessment, all NFIP policies are also assessed a surcharge following the passage of HFIAA.<sup>38</sup> 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.<sup>39</sup> 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.<sup>40</sup> In April 2019, FEMA began charging a 5% premium<sup>41</sup> on all severe repetitive loss properties.<sup>42</sup> One additional surcharge may be levied if a community is on probation from the NFIP.<sup>43</sup> All policyholders in that community will be charged a probation surcharge of \$50 for a full one-year period, even if the community brings its program into compliance and is removed from probation.

---

<sup>33</sup> Section 100212 of P.L. 112-141, 126 Stat. 992, as codified at 42 U.S.C. §4017a.

<sup>34</sup> 42 U.S.C. §4017a(b).

<sup>35</sup> For additional information on the reserve fund, see FEMA, *Quarterly NFIP Reserve Fund Report*, June 15, 2016.

<sup>36</sup> See FEMA, *Flood Insurance Manual, Appendix J: Rate Table 7B, Reserve Fund Assessment*. Revised April 2019, p. J-16, [https://www.fema.gov/media-library-data/1558455013698-bde8c63b71d2da4a3357536a48f409fc/app-j\\_rate\\_tables\\_508\\_apr2019\\_rev1.3.pdf](https://www.fema.gov/media-library-data/1558455013698-bde8c63b71d2da4a3357536a48f409fc/app-j_rate_tables_508_apr2019_rev1.3.pdf).

<sup>37</sup> 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>.

<sup>38</sup> Section 8(a) of P.L. 113-89, 128 Stat. 1023.

<sup>39</sup> For a description of how the fee is applied to different policy types, see FEMA, *The HFIAA Surcharge Fact Sheet*, April 2015, <https://www.fema.gov/media-library/assets/documents/105569>.

<sup>40</sup> See FEMA, *NFIP Fact Sheet: The HFIAA Surcharge*, April 2015, <https://www.fema.gov/media-library/assets/documents/105569>.

<sup>41</sup> This premium is calculated as 5% of the annual subtotal premium, which includes the building and contents premiums and the reserve fund assessment. See David I. Maurstad, *April 1, 2019, and January 1, 2020, Program Changes*, FEMA, Federal Insurance and Mitigation Administration, Memorandum for Write Your Own Principal Coordinators and the National Flood Insurance Program Servicing Agent, W-18021a, Washington, DC, October 1, 2018, pp. 3-4, <https://nfipservices.floodsmart.gov/sites/default/files/w-18021a.pdf>.

<sup>42</sup> 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).

<sup>43</sup> A community can be placed on probation by FEMA if it is found that it is failing to adequately enforce the floodplain management standards it has adopted. A community is given time to rectify FEMA's concerns regarding their implementation of the floodplain management standards. Ultimately, if the community does not correct its cited deficiencies after given time periods described in regulations, the community will be suspended from the NFIP by FEMA. For additional details on probation, see 44 C.F.R. 59.24(b) and (c).

## 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,”<sup>44</sup> 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.<sup>45</sup> By statute, 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 of the financial burden among those protected by flood insurance and the public. As of September 2018, approximately 13% of NFIP policies received a pre-FIRM subsidy.<sup>46</sup> Historically, the total number of pre-FIRM policies is relatively stable, but the percentage of those policies as a share of the total policy base has decreased.<sup>47</sup>

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 were reached:<sup>48</sup> these included secondary residences, businesses, severe repetitive loss properties, and properties with substantial cumulative damage.<sup>49</sup> 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.<sup>50</sup> 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

---

<sup>44</sup> 42 U.S.C. §4014(a)(1).

<sup>45</sup> 42 U.S.C. §4015(c).

<sup>46</sup> Email correspondence from FEMA Congressional Affairs staff, June 13, 2019.

<sup>47</sup> For an historical perspective 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, <http://www.gao.gov/assets/660/655734.pdf>.

<sup>48</sup> 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>.

<sup>49</sup> 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).

<sup>50</sup> Section 100207 of P.L. 112-141. 126 Stat. 919.

reduction in the number of NFIP policies purchased.<sup>51</sup> 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.<sup>52</sup> 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.<sup>53</sup> HFIAA retained the 25% annual phaseout of the subsidy from BW-12 for all other categories of properties.<sup>54</sup>

### *Newly Mapped Subsidy*

HFIAA established a new subsidy<sup>55</sup> for properties that are newly mapped into a Special Flood Hazard Area (SFHA)<sup>56</sup> 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.<sup>57</sup> The rate for eligible newly mapped properties is equal to the PRP rate, but with a higher Federal Policy Fee,<sup>58</sup> 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.<sup>59</sup> As of September 2018, about 4% of NFIP policies receive a newly mapped subsidy.<sup>60</sup>

### *Grandfathering*

Using the authority to set rate classes for the NFIP and to offer lower than actuarial premiums,<sup>61</sup> 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,”

---

<sup>51</sup> 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>.

<sup>52</sup> For a full comparison of changes in pre-Flood Insurance Rate Map (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 Baird Webel.

<sup>53</sup> P.L. 112-141, 126 Stat. 917; and P.L. 113-89, 128 Stat. 1021-1022; respectively.

<sup>54</sup> 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 Baird Webel.

<sup>55</sup> Section 6 of P.L. 113-89, 128 Stat. 1028, as codified at 42 U.S.C. §4015(i).

<sup>56</sup> A Special Flood Hazard Area (SFHA) is defined by FEMA as an area with a 1% or greater risk of flooding every year.

<sup>57</sup> For properties that are excluded from, or ineligible for, the newly mapped subsidy, see FEMA, *Flood Insurance Manual, How to Write*, Revised October 2019, pp. 3-8 to 3-9 and 3-41 to 3-43, [https://www.fema.gov/media-library-data/1569523558680-8c1d47a539c8e21b3b8f80cf7b108fae/3\\_how\\_to\\_write\\_oct2019.pdf](https://www.fema.gov/media-library-data/1569523558680-8c1d47a539c8e21b3b8f80cf7b108fae/3_how_to_write_oct2019.pdf).

<sup>58</sup> The FRP for a newly mapped property is \$50, where the FPF for PRP is \$25. See FEMA, *Flood Insurance Manual, How to Write*, Revised October 2019, p. 3-32, [https://www.fema.gov/media-library-data/1569523558680-8c1d47a539c8e21b3b8f80cf7b108fae/3\\_how\\_to\\_write\\_oct2019.pdf](https://www.fema.gov/media-library-data/1569523558680-8c1d47a539c8e21b3b8f80cf7b108fae/3_how_to_write_oct2019.pdf).

<sup>59</sup> FEMA, Attachment A: Summary of the NFIP Program Changes Effective April 1, 2018, <https://nfip-iservice.com/Stakeholder/pdf/bulletin/ATTACHMENT%20A%20-%20Summary%20of%20the%20NFIP%20April%202018%20and%20January%202019%20Program%20Changes%20final.pdf>.

<sup>60</sup> Email correspondence from FEMA Congressional Affairs staff, June 13, 2019.

<sup>61</sup> 42 U.S.C. §4013(a).

“administrative grandfathering,” or the “grandfather rule,” and is separate and distinct from the pre-FIRM subsidy.<sup>62</sup> 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 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.<sup>63</sup> As of September 2018, about 9% of NFIP policies were grandfathered.<sup>64</sup>

## **Risk Rating 2.0**

FEMA is planning to introduce the biggest change to the way the NFIP calculates flood insurance premiums since its inception,<sup>65</sup> known as Risk Rating 2.0.<sup>66</sup> The new rates are scheduled to go into effect on October 1, 2021, for all NFIP policies.<sup>67</sup>

The NFIP’s current rating structure follows general insurance practices in place at the time that the NFIP was established and has not fundamentally been changed since the 1970s.<sup>68</sup> FEMA uses a nationwide rating system that combines flood zones across many geographic areas, and individual policies do not necessarily reflect topographical features that affect flood risk. FEMA models expected losses for groups of structures that are similar in flood risk and key structural aspects, and assigns the same rate to all policies in a group. For example, two properties that are rated as the same NFIP risk (i.e., both are one-story, single-family homes with no basement and are elevated the same number of feet above the Base Flood Elevation (BFE))<sup>69</sup> are charged the same rate per \$100 of insurance, although they may be located in different states with differing flood histories or rest on different topography, such as a shallow floodplain vs. a steep river valley. In addition, two properties in the same flood zone<sup>70</sup> are charged the same rate, regardless of their location within the zone.

---

<sup>62</sup> For a full description, see FEMA, *NFIP Grandfathering Rules for Agents*, March 2015, [https://www.fema.gov/media-library-data/1488482596393-dcc52e6c120c9327dcd75f1c08e802e4/GrandfatheringForAgents\\_03\\_2016.pdf](https://www.fema.gov/media-library-data/1488482596393-dcc52e6c120c9327dcd75f1c08e802e4/GrandfatheringForAgents_03_2016.pdf).

<sup>63</sup> 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.

<sup>64</sup> Email correspondence from FEMA Congressional Affairs staff, June 13, 2019.

<sup>65</sup> See FEMA, *NFIP Transformation and Risk Rating 2.0*, <https://www.fema.gov/nfiptransformation>.

<sup>66</sup> For further details of Risk Rating 2.0, see CRS Report R45999, *National Flood Insurance Program: The Current Rating Structure and Risk Rating 2.0*, by Diane P. Horn.

<sup>67</sup> FEMA, *FEMA Defers the Implementation of Risk Rating 2.0*, November 7, 2019, <https://www.fema.gov/news-release/2019/11/07/fema-defers-implementation-risk-rating-20>.

<sup>68</sup> *Ibid.*

<sup>69</sup> 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.

<sup>70</sup> For a detailed explanation of flood zones, see CRS Report R44593, *Introduction to the National Flood Insurance Program (NFIP)*, by Diane P. Horn and Baird Webel.

To calculate the premium, the current rating system considers the flood zone, the building occupancy type,<sup>71</sup> the foundation type, whether the property is pre-FIRM or post-FIRM, whether or not the property is a primary residence, and the property elevation relative to the BFE for properties in an SFHA. The amount and type of coverage and the deductible will also affect the premium.

NFIP premiums calculated under Risk Rating 2.0 are to reflect an individual property's flood risk, in contrast to the current rating system in which properties with the same NFIP flood risk are charged the same rates. This will involve the use of a larger range of variables than in the current rating system. The current rating system uses two sources of flooding, coastal and fluvial (river). In contrast, Risk Rating 2.0 is to incorporate a broader range of flood frequencies and sources, including pluvial flooding (flooding due to heavy rainfall), urban flooding,<sup>72</sup> and coastal erosion outside the V-zone (the coastal high-hazard area).<sup>73</sup> Geographical variables to be used in Risk Rating 2.0 are to include the distance to the water and the type of water (i.e., river, stream, coast), the elevation of the property relative to the flooding source, and the stream order, which is a measure of the relative size of streams and rivers. The structural variables which have been identified by FEMA for use in Risk Rating 2.0 include the foundation type of the structure, the height of the lowest floor of the structure relative to BFE, and the replacement cost value of the structure. The use of distance to water as a variable may mean that premiums for properties at the landward boundary of a SFHA could go down, while premiums for a property at the water boundary could go up.

### ***Replacement Cost Value***

Under the current rating system, NFIP premium rates are based on the amount of insurance purchased for a structure, not the replacement cost for that structure. For example, for most actuarially rated structures in the A zone, the NFIP currently classifies the first \$60,000 of building coverage for single-family residences (\$175,000 for businesses) and \$25,000 of contents coverage as the basic limit. It charges higher rates for coverage under this amount, because losses are more likely to occur in this range. Rates for additional coverage above the basic limit are lower. The basic and additional rates are loaded to account for the average tendency to buy less insurance than the replacement value. For example, a post-FIRM single-family property in the A-zone,<sup>74</sup> with \$250,000 of buildings coverage and a deductible of \$3,000, would currently pay a

---

<sup>71</sup> The NFIP occupancy types are single family, 2-4 family, other residential, non-residential business, or other non-residential. For further detail, see FEMA, *Flood Insurance Manual, 3. How to Write*, pp. 3-9 to 3-11, revised April 2019, [https://www.fema.gov/media-library-data/1555526545972-7169ef09aba2f9a043c638064ec84025/3\\_how\\_to\\_write\\_508\\_apr2019.pdf](https://www.fema.gov/media-library-data/1555526545972-7169ef09aba2f9a043c638064ec84025/3_how_to_write_508_apr2019.pdf).

<sup>72</sup> Urban flooding is caused when the inflow of storm water in urban areas exceeds the capacity of drainage systems to infiltrate storm water into the soil or to carry it away. The inflow of storm water results from heavy rainfall, which can collect on the landscape (pluvial flooding), or from storm surge or high tides, which push water onto coastal cities. Urban flood water inundation and flow are influenced by land development, which disturbs natural drainage patterns and creates impervious surfaces that inhibit infiltration, and/or storm water systems that are undersized for current needs. See National Academies of Sciences, Engineering, and Medicine, *Framing the Challenges of Urban Flooding in the United States*, Washington, DC, March 29, 2019, p. 9, <https://www.nap.edu/catalog/25381/framing-the-challenge-of-urban-flooding-in-the-united-states>.

<sup>73</sup> The V-zone is defined by FEMA as the area subject to inundation by the 1% annual flood event, with additional hazards associated with storm-induced waves. For further information, see FEMA, *Zone V*, <https://www.fema.gov/zone-v>.

<sup>74</sup> The A-zone is defined by FEMA as the area subject to inundation by the 1% annual flood event. For further information, see FEMA, *Zone A*, <https://www.fema.gov/zone>.

rate of 3% on the first \$60,000 and a rate of 2% on the additional \$190,000 (plus the Increased Cost of Compliance (ICC) premium and the reserve fund assessment).<sup>75</sup>

The two-tiered rating structure was used in the industry for two reasons. First, it ensured that the premium collected is sufficient to cover the typical claim even if a policy is under-insured; according to FEMA, most NFIP claims are below \$60,000.<sup>76</sup> By charging a high rate for coverage up to \$60,000, a policyholder's premium is likely to be sufficient to cover a typical claim. Secondly, it encouraged policyholders to fully insure their structure. By charging a low additional rate, policyholders are encouraged not just to insure a typical claim, but to insure against the unlikely but possible higher claim.

For much of the NFIP's existence, the two-tiered rating structure operated with minimal inequity. However, as the range of replacement values widened, particularly through the 2000s, the potential for inequity caused by rating based on coverage instead of structure value grew. Two groups are most subject to inequity. First, structures whose value is closer to the \$60,000 basic limit pay more than they would if their rate was based on their structure value because most of their rate is comprised of the lower additional rate. Second, structures whose value is above the \$250,000 cap pay less than they would if their rate was based on structure value, because their rate is based on an average structure value that is much less than their actual structure value. In addition, high-valued structures can produce much higher claims than lower-valued structures with the same intensity of damage.<sup>77</sup>

If replacement cost value were to be used in setting NFIP premium rates, 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.

### ***Premium Increases Under Risk Rating 2.0***

The limitations on annual premium increases are set in statute<sup>78</sup> and Risk Rating 2.0 will not be able to increase rates beyond these caps. Rate increases for primary residences are restricted to 5%-18% per year. Individual property increases of up to 18% are allowed, but rate class increases are limited to 15% per year.<sup>79</sup> Other categories of properties are required to have their premium increased by 25% per year until they reach full risk-based rates: this includes non-primary residences, nonresidential properties, business properties,<sup>80</sup> properties with severe repetitive loss, properties with substantial cumulative damage, and properties with substantial damage<sup>81</sup> or substantial improvement after July 6, 2012.

---

<sup>75</sup> See FEMA, *Flood Insurance Manual*, 3. *How to Write*, p. 3-77, revised April 2019, [https://www.fema.gov/media-library-data/1555526545972-7169ef09aba2f9a043c638064ec84025/3\\_how\\_to\\_write\\_508\\_apr2019.pdf](https://www.fema.gov/media-library-data/1555526545972-7169ef09aba2f9a043c638064ec84025/3_how_to_write_508_apr2019.pdf).

<sup>76</sup> Email correspondence from FEMA Congressional Affairs staff, July 19, 2017.

<sup>77</sup> *Ibid.*

<sup>78</sup> 42 U.S.C. §4015(e).

<sup>79</sup> *Ibid.*

<sup>80</sup> The different occupancy categories (non-primary residences, non-residential properties, business properties) are defined at <https://www.fema.gov/national-flood-insurance-program/definitions>.

<sup>81</sup> For an explanation of substantial damage and substantial improvement, see FEMA Fact Sheet, *NFIP "Substantial Damage"—What Does It Mean?* <https://www.fema.gov/news-release/2017/09/14/fact-sheet-nfip-substantial-damage-what-does-it-mean>; and FEMA, *Substantial Improvement*, <https://www.fema.gov/floodplain-management-old/substantial-improvement>.

However, FEMA does not consider everything that policyholders pay to the NFIP to be part of the premium and therefore subject to these caps. When premium rates are calculated for compliance with the statutory caps, FEMA only includes the building and contents coverage, the ICC coverage,<sup>82</sup> and the reserve fund assessment. Other fees and surcharges are not considered premium and, therefore, are not subject to the premium cap limitations, including the FPF, the HFIAA surcharge and, if applicable, the 5% Severe Repetitive Loss premium and/or probation surcharge.<sup>83</sup>

### **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. This will not change fully with the introduction of Risk Rating 2.0; although premiums for individual properties will be tied to their actual flood risk, the rate at which the subsidies will be phased out will not change.

The move towards 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 NFIP Premiums, Fees, and Surcharges in H.R. 3167**

- Section 103 would repeal the HFIAA surcharge,<sup>84</sup> which is \$25 for primary residences and \$250 for all other properties. This provision would decrease the amount that policyholders pay for flood insurance, but would benefit primary residences less than other categories of property. FEMA does not include the HFIAA surcharge in their calculation of premium rate increases, so this change would not have any impact on the rate at which premiums might increase with Risk Rating 2.0.
- Section 104 would authorize monthly installment payments of NFIP premiums rather than the current annual payment of premiums. The fee for making monthly payments during the first year of implementation could not exceed \$25 per year.
- Section 304 would 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.
- Section 402 would authorize FEMA to offer one umbrella policy to owners of multiple structures on the same property. This would apply to both commercial properties and residential properties, including agricultural

---

<sup>82</sup> See “Increased Cost of Compliance (ICC) Coverage” in this report.

<sup>83</sup> See David I. Maurstad, *April 1, 2019, and January 1, 2020, Program Changes*, FEMA, Federal Insurance and Mitigation Administration, Memorandum for Write Your Own Principal Coordinators and the National Flood Insurance Program Servicing Agent, W-18021a, Washington, DC, October 1, 2018, pp. 1-2, <https://nfipservices.floodsmart.gov/sites/default/files/w-18021a.pdf>.

<sup>84</sup> Section 8(a) of P.L. 113-89, 128 Stat. 1023.

structures and multi-family rental properties. This could have the effect of making flood insurance easier to buy for the relevant properties.

### **Provisions Related to NFIP Premiums, Fees, and Surcharges in S. 2187**

- Section 102 would prohibit FEMA from increasing the amount of covered costs above 9% per year on any policyholder during the five-year period beginning on the date of enactment. Covered costs include premiums, surcharges (including the surcharge for ICC coverage 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 cap on premium increases could potentially limit FEMA's ability to implement rate increases under Risk Rating 2.0. Section 102 would also amend the basis on which premiums are determined so that the calculation of an average historical loss year<sup>85</sup> would exclude catastrophic loss years. This would probably lower premiums for all policyholders.
- Section 104 would authorize monthly installment payments of NFIP premiums rather than the current annual payment of premiums. The fee for making monthly payments during the first year of implementation could not exceed \$15 per year.
- Section 106 would 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.
- Section 107 would establish a baseline amount, defined as the maximum original principal obligation of a standard mortgage that may be purchased by the Federal National Mortgage Association (Fannie Mae) in the area where the property is located. The baseline amount would track the Fannie Mae maximum loan limits for single-family dwellings.<sup>86</sup> 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. This provision would increase

---

<sup>85</sup> 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>.

<sup>86</sup> The Federal National Mortgage Association loan limits for conventional mortgages for 2019 are available at <https://www.fanniemae.com/singlefamily/loan-limits>. For most locations, the single-family loan limit in 2019 is \$484,350; for high-cost areas, the single-family loan limit is \$726,525.

coverage limits for both buildings and contents insurance, with a larger increase in high-cost areas.

- Section 306 would increase premiums by 25% each year on any property for which a policyholder refuses a bona fide offer of mitigation assistance until the policyholder accepts the bona fide offer of assistance or the chargeable risk premium is actuarially sound.<sup>87</sup>

## **NFIP Borrowing from Treasury**

The funding for the NFIP is primarily maintained in an authorized account called the National Flood Insurance Fund (NFIF).<sup>88</sup> Generally, the NFIP has been funded through three methods:

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

As provided for in law, all premiums from the sale of NFIP insurance are transferred to FEMA and deposited in the NFIF.<sup>89</sup> Congress then authorizes FEMA to withdraw funds from the NFIF, and use those funds for specified purposes needed to operate the NFIP. In addition to premiums, Congress also provides annual appropriations to supplement floodplain mapping activities. In addition to the mix of discretionary and mandatory funding which are set in appropriations legislation, fluctuating levels of mandatory spending occur in the NFIP in order to pay and adjust claims on affected NFIP policies.<sup>90</sup>

The NFIP was not designed to retain funding to cover claims for truly extreme events; instead, the National Flood Insurance Act of 1968 allows the program to borrow money from the Treasury for such events. For most of the NFIP's history, the program has generally been able to cover its costs, borrowing relatively small amounts from the Treasury to pay claims, and then repaying the loans with interest. Currently, Congress has authorized FEMA to borrow no more than \$30.425 billion from the U.S. Treasury in order to operate the NFIP. The NFIP's debt to the U.S. Treasury cannot be tied directly to any single incident, as any insurance claim paid by the NFIP is in some way responsible for the existing debt of the NFIP (i.e., a dollar paid in claims, and therefore expended by the NFIP, following a minor flooding incident is no different than a dollar paid following a major hurricane). However, the NFIP was forced to borrow heavily to pay claims in the aftermath of three catastrophic flood seasons, the 2005 hurricane season (particularly Hurricanes Katrina, Rita, and Wilma), Hurricane Sandy in 2012, and the 2017 hurricane season (Hurricanes Harvey, Irma, and Maria).<sup>91</sup>

---

<sup>87</sup> A bona fide offer of assistance is defined in S. 2187, Section 306, as an offer of assistance made by FEMA to an NFIP policyholder that (A) relates to mitigation activities with respect to the insured structure; (B) covers 100% of the cost of the mitigation activities; (C) permits the policyholder to continue to live in the insured structure; and (D) is carried out under a mitigation plan.

<sup>88</sup> The National Flood Insurance Fund is authorized by 42 U.S.C. §4017.

<sup>89</sup> 42 U.S.C. §4017(b).

<sup>90</sup> This mandatory spending is authorized by 42 U.S.C. §4017(d)(1). All other expenses using the NFIF must be authorized in appropriations acts, per 42 U.S.C. §4017(f).

<sup>91</sup> For details of NFIP borrowing, see CRS Insight IN10784, *National Flood Insurance Program Borrowing Authority*, by Diane P. Horn.

The 2017 hurricane season brought the NFIP up to the \$30.425 billion borrowing limit for the first time. At the start of the 2017 hurricane season, the NFIP owed \$24.6 billion. On September 22, 2017, the NFIP borrowed the remaining \$5.825 billion from the Treasury to cover claims from Hurricane Harvey, Hurricane Irma, and Hurricane Maria, reaching the NFIP's authorized borrowing limit of \$30.425 billion.<sup>92</sup> On October 26, 2017, Congress cancelled \$16 billion of NFIP debt, making it possible for the program to continue to pay claims for Hurricanes Harvey, Irma, and Maria.<sup>93</sup> 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, and did not need to borrow to pay claims for the 2018 hurricane season or other floods in 2018.<sup>94</sup>

Only current and future participants in the NFIP are responsible for repaying NFIP debt, as the insurance program itself owes the debt to the Treasury and pays for accruing interest on that debt through the premium revenues of policyholders. For example, from FY2006 to FY2016 (i.e., since the NFIP borrowed funds following Hurricane Katrina), the NFIP has paid \$2.82 billion in principal repayments and \$4.4 billion in interest to service the debt through the premiums collected on insurance policies.<sup>95</sup> The NFIP is currently paying \$375-\$400 million a year in interest. In a report on NFIP solvency, 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.<sup>96</sup> 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.<sup>97</sup>

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.<sup>98</sup> 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.<sup>99</sup> 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<sup>100</sup> to eliminate the requirement that FEMA repay the accumulated debt. Under its current authorization, the only

---

<sup>92</sup> FEMA Watermark, Fiscal Year 2018, First Quarter, Volume 1, March 21, 2018, [https://www.fema.gov/media-library-data/1522167351921-a5e457454262dd100e2f15a7210d21c5/Watermark\\_FY18\\_Q1\\_v6\\_508.pdf](https://www.fema.gov/media-library-data/1522167351921-a5e457454262dd100e2f15a7210d21c5/Watermark_FY18_Q1_v6_508.pdf).

<sup>93</sup> P.L. 115-72, Title III, §308.

<sup>94</sup> FEMA Watermark, Fiscal Year 2019, Second Quarter, Volume 6, May 28, 2019, [https://www.fema.gov/media-library-data/1561727044197-7d62fd895d1be2a136fbcc2b0a790ec7/FIMA\\_Watermark\\_FY19\\_Q2\\_DRAFT\\_1\\_\(508compliant\).pdf](https://www.fema.gov/media-library-data/1561727044197-7d62fd895d1be2a136fbcc2b0a790ec7/FIMA_Watermark_FY19_Q2_DRAFT_1_(508compliant).pdf).

<sup>95</sup> Ibid.

<sup>96</sup> 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>.

<sup>97</sup> Ibid.

<sup>98</sup> Funds for "repayment under notes" were appropriated in P.L. 96-526, 94 Stat. 3053; P.L. 97-101, 95 Stat. 1425; P.L. 97-272, 96 Stat. 1169; P.L. 98-45, 97 Stat. 228; P.L. 98-371, 98 Stat. 1224; and P.L. 99-160, 99 Stat. 918. These appropriations cumulatively repaid \$1,313,227,000.

<sup>99</sup> 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>.

<sup>100</sup> 42 U.S.C. §4016.

means the NFIP has to pay off the debt is through the accrual of premium revenues in excess of outgoing claims, and from payments made out of the Reserve Fund.

As required by law,<sup>101</sup> FEMA submitted a report to Congress in May 2018 on how the borrowed amount from the U.S. Treasury could be repaid within a 10-year period. The key conclusion of this and past reports is that it is unlikely that the NFIP will be able to repay its current debt fully.<sup>102</sup> If interest rates were to rise, debt payments would increase significantly and FEMA might not be able to retire any of its debt, even in low-loss years.<sup>103</sup> No projections of the NFIP debt have yet been made that take account of the cancellation of \$16 billion of NFIP debt or the \$10.83 billion in claims from the 2017 hurricane season. However, 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 S. 2187**

- Section 301 would freeze interest accrual on the NFIP’s debt to the Treasury for five years after enactment and provides that interest that would have accrued during this period would not have to be repaid in future. This section would also require FEMA to deposit the amount equal to the interest that would have accrued on the borrowed amounts during the five-year period into the National Flood Mitigation Fund and use this funding to carry out the Flood Mitigation Assistance Grant Program.<sup>104</sup>

## **Increasing Participation in the NFIP**

### **The Mandatory Purchase Requirement**

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.<sup>105</sup> It was also a motivation for introducing the requirement, in the Flood Disaster Protection Act of 1973,<sup>106</sup> 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. 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. Federal agencies, federally regulated lending institutions, and government-sponsored enterprises (GSE)<sup>107</sup> must require these property owners to purchase

---

<sup>101</sup> See 42 U.S.C. §4016(d), as enacted by Section 100213(a) of P.L. 112-141 (BW-12).

<sup>102</sup> FEMA, *Semi-Annual NFIP Debt Repayment Progress Report, as of September 30, 2015*, Washington, DC, May 3, 2018, p. 14.

<sup>103</sup> 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>.

<sup>104</sup> For a discussion of the Flood Mitigation Assistance (FMA) Grant Program, see “Flood Mitigation” in this report.

<sup>105</sup> 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).

<sup>106</sup> P.L. 93-234, 87 Stat. 985.

<sup>107</sup> 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).

flood insurance as a condition of any mortgage that these entities make, guarantee, or purchase.<sup>108</sup> 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).<sup>109</sup> 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.<sup>110</sup> The escrowing of insurance premiums, which began in January 2016, may increase compliance with the mandatory purchase requirement, but no data on this are available.

### **Provisions Related to the Mandatory Purchase Requirement in H.R. 3167**

- Section 103 would increase the minimum loan amount that triggers the mandatory purchase requirement to \$25,000. Currently, loans with an outstanding balance less than \$5,000 or a repayment term less than one year are exempted from the mandatory purchase requirement.<sup>111</sup> This provision would potentially allow homeowners and businesses to drop their flood insurance earlier than is currently possible.
- Section 408 would require GAO to determine the percentages of properties with federally backed mortgages located in SFHAs that satisfy the mandatory purchase requirement, and the percentage of properties with federally backed mortgages located in the 500-year floodplain<sup>112</sup> that would satisfy the mandatory purchase requirement if the mandatory purchase requirement applied to such properties.

### **Provisions Related to the Mandatory Purchase Requirement in S. 2187**

- Section 108 would require GAO to determine the percentages of properties with federally backed mortgages located in SFHAs that 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.

---

<sup>108</sup> 42 U.S.C. §4012a.

<sup>109</sup> Lloyd Dixon, Noreen Clancy, 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](https://www.fema.gov/media-library-data/20130726-1602-20490-2804/nfip_eval_market_penetration_rate.pdf).

<sup>110</sup> Lloyd Dixon, Noreen Clancy, 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](https://www.rand.org/pubs/research_reports/RR1776.html).

<sup>111</sup> 42 U.S.C. §4012a(c)(2)(A).

<sup>112</sup> The 500-year floodplain is defined by FEMA as an area with a 0.2% or greater risk of flooding every year.

## NFIP Participation Rates

Both the GAO report and the NFIP report to Congress on options for privatizing the NFIP<sup>113</sup> 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.<sup>114</sup> According to GAO, some private insurers have indicated that such 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 about adverse selection.<sup>115</sup> 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.<sup>116</sup>

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.<sup>117</sup> 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.<sup>118</sup> 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.<sup>119</sup>

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.<sup>120</sup> Closing the insurance gap is one of the key objectives of FEMA's 2018-2022 strategic plan.<sup>121</sup>

---

<sup>113</sup> NFIP, *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](https://www.floods.org/ace-files/documentlibrary/2012_NFIP_Reform/Reinsuring_NFIP_Insurance_Risk_and_Options_for_Privatizing_the_NFIP_Report.pdf).

<sup>114</sup> 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>.

<sup>115</sup> GAO, *Flood Insurance: Strategies for Increasing Private Sector Involvement*, GAO-14-127, January 2014, p. 23, <https://www.gao.gov/products/GAO-14-127>.

<sup>116</sup> 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](http://www.floods.org/ace-files/documentlibrary/National_Policy/Rethinking_the_NFIP_Comments_from_ASFPM_1-11-11.pdf).

<sup>117</sup> 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>.

<sup>118</sup> *Ibid.*

<sup>119</sup> For additional information on NFIP participation rates, see CRS Insight IN10890, *Closing the Flood Insurance Gap*, by Diane P. Horn.

<sup>120</sup> 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](https://www.fema.gov/media-library-data/1493727672905-9f2950b534607c3f9ef3e771d28a81e2/PreparedRemarks_Wright_NationalFloodConference_May2017.pdf).

<sup>121</sup> FEMA, *2018-2022 Strategic Plan*, March 2018, p. 15, <https://www.fema.gov/media-library/assets/documents/160940>.

## **Provisions Related to Increasing Participation in H.R. 3167**

- Section 408 would require GAO to conduct a study to address how to increase participation rates through programmatic and regulatory changes, and report to Congress no later than 18 months after enactment.

## **Provisions Related to Increasing Participation in S. 2187**

- Section 108 would require GAO to conduct a study to address how to increase participation rates through programmatic and regulatory changes, and report to Congress no later than 18 months after enactment.

## **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.<sup>122</sup> 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, which was published in 2015.

The NRC report was published in two parts.<sup>123</sup> 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.<sup>124</sup> They suggested that if affordability were to be 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?<sup>125</sup>

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.<sup>126</sup> The first NRC report identified potential policy measures that might reduce the burden of premium payments, or that might direct mitigation

---

<sup>122</sup> 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>.

<sup>123</sup> 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>.

<sup>124</sup> National Research Council of the National Academies, *Affordability of National Flood Insurance Program Premiums: Report 1*, 2015, p. 80, <http://www.nap.edu/catalog/21709/affordability-of-national-flood-insurance-program-premiums-report-1>.

<sup>125</sup> *Ibid.*, pp. 83-84.

<sup>126</sup> *Ibid.*, pp. 85-90.

assistance towards households that qualify for assistance. These included 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.<sup>127</sup> 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.<sup>128</sup>

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.<sup>129</sup> 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 (AMI), respectively.<sup>130</sup> 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. Reducing flood risk through mitigation could also reduce the need for federal disaster assistance, further decreasing federal fiscal exposure.<sup>131</sup>

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....”<sup>132</sup> FEMA published its Affordability Framework on April 17, 2018.<sup>133</sup> FEMA started the development of the affordability framework by consulting other federal agencies on how to define affordability, noting that neither BW-12 nor HFIAA provided a

---

<sup>127</sup> 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>.

<sup>128</sup> 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>.

<sup>129</sup> 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>.

<sup>130</sup> 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>.

<sup>131</sup> 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>.

<sup>132</sup> Section 9(a) of P.L. 113-89, 128 Stat. 1024.

<sup>133</sup> FEMA, *An Affordability Framework for the National Flood Insurance Program*, 2018, <https://www.fema.gov/media-library/assets/documents/163171>.

definition of flood insurance affordability. Based on the guidance of other agencies, they chose to define the concept of affordability from a cost burden or ability to pay perspective. They analyzed the 2015 NFIP portfolio of 4.8 million policies (4.5 million residential policies, of which 90% were single-family homes).<sup>134</sup> In particular, they used American Community Survey (ACS) data<sup>135</sup> to analyze how ACS respondents intersect with the SFHA, using the National Flood Hazard Layer (NFHL)<sup>136</sup> to determine whether there were differences in income between those who live inside and outside the SFHA. They also looked at the difference between NFIP policyholders and potential policyholders, differentiating between flood risk, income, and mortgage status. They used the AMI to identify low-income policyholders. FEMA also classified flood risk in SFHAs as coastal or noncoastal in order to determine whether incomes are higher in areas subject to coastal flooding for the matched NFIP and census data. They found that generally incomes are higher outside the SFHA than they are inside the SFHA. Median income is higher for policyholders and non-policyholders exposed to coastal risk for both homeowners and renters. However, the income differences by source of flood risk were not found to be sizable compared to the differences in income between mortgage holders, outright homeowners, and renters. The data supported FEMA's extensive anecdotal evidence that there is a significant population in the SFHA of lower-income families who have either inherited their homes or are retirees, who are particularly sensitive to the financial burden of flood insurance.<sup>137</sup>

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 appropriations.

### **Provisions Related to Affordability in H.R. 3167**

- Section 102 would create a five-year affordability demonstration program to determine the effectiveness of providing means-tested discounted rates for NFIP policies, with the authority to provide discounted premium rates terminating on May 31, 2024. The discounted premium rates would only be available to owner-occupants of residences with no more than four units, with the further requirement that the property is the primary residence of a household whose income does not exceed 80% of the area median income (AMI).<sup>138</sup> The chargeable premium rate made available under this section would be an amount that does not exceed 2% of the annual AMI for the area in which the property is located. FEMA would be required to provide all participants in this program with a written statement detailing the full actuarial premium rate for the coverage. Within 12 months of enactment, FEMA would be required to issue guidance for the establishment of the

---

<sup>134</sup> FEMA, *An Affordability Framework for the National Flood Insurance Program*, 2018, p. 9, <https://www.fema.gov/media-library/assets/documents/163171>.

<sup>135</sup> U.S. Census Bureau, American Community Survey, <https://www.census.gov/programs-surveys/acs>.

<sup>136</sup> The National Flood Hazard Layer is a geospatial database operated by FEMA that contains current effective flood hazard data. See <https://www.fema.gov/national-flood-hazard-layer-nfhl>.

<sup>137</sup> FEMA, *An Affordability Framework for the National Flood Insurance Program*, 2018, pp. 13-14, <https://www.fema.gov/media-library/assets/documents/163171>.

<sup>138</sup> See Department of Housing and Urban Development, *Methodology for Calculating FY2019 Medians*, <https://www.huduser.gov/portal/datasets/il/il19/Medians-Methodology-FY19r.pdf>.

affordability demonstration program, and not later than five years after the start of the implementation of the program, FEMA would be required to submit a report to Congress evaluating the effectiveness of the program. This report would include a statement of the number of households participating in the program and the rates of participation by communities participating in the NFIP, including whether such rates of participation have changed by year, and an estimate of the cost of the program to the NFIP. This affordability program could have the potential to benefit areas with low median incomes more than those with high median incomes. In particular, households in an area where 2% of the AMI is more than the average flood insurance premium may not benefit from this provision. For example,

- The AMI for Washington, DC, in 2017 dollars, is \$77,649.<sup>139</sup> Two percent of the AMI is \$1,552.98; anyone paying more than this amount would receive a discount so that they would pay no more than \$1,552.98. However, the average NFIP premium in Washington, DC is \$720.68,<sup>140</sup> so a household with a low income paying this average flood insurance premium of \$720.68 in Washington, DC, would not have any chargeable premium rate in excess of 2% of the annual area median income, and thus would not receive a discount.
- The AMI for Detroit in 2017 dollars is \$27,838,<sup>141</sup> and 2% of the AMI is \$556.76. The average premium for Detroit is \$633.69, so a household with a low income paying the average flood insurance premium would receive a discount of \$76.93.
- Section 106 would authorize FEMA, where appropriate, to consider the impact of the inclusion of replacement cost value of a structure in setting the NFIP premium rate in determining the affordability of flood insurance premiums.

### **Provisions Related to Affordability in S. 2187**

- 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 amounts saved as a direct result of the limitation on the operating costs of Write-Your-Own companies. This section would require FEMA to provide financial assistance in the form of a voucher, grant, or premium credit to an eligible household, defined as one where
  - (1) 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 22% of the median income of the state in which the household is located; or

<sup>139</sup> Median household income for 2013-2017, taken from U.S. Census data at <https://www.census.gov/quickfacts/fact/table/washingtoncitydistrictofcolumbia,US/INC110217>.

<sup>140</sup> Data on median flood insurance premiums provided by FEMA Congressional Affairs staff on August 7, 2018.

<sup>141</sup> Median household income for 2013-2017, taken from U.S. Census data at <https://www.census.gov/quickfacts/fact/table/detroitcitymichigan/PST045218>.

- (2) if the total household income is less than 120% of the AMI, the amount of the premiums, surcharges, and fees for an annual flood insurance policy exceeds 1% of the coverage limit of that policy.

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. The amount of the assistance would be reduced by 1% for each percent that the income of the eligible household exceeds 120% of the state median income.

## **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.<sup>142</sup> Until recently the role of the private market in primary residential flood insurance has been relatively limited. The main role of private insurance companies has been 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. 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.<sup>143</sup> This occurs primarily through 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.<sup>144</sup>

Companies participating in the WYO program are compensated through a variety of methods.<sup>145</sup> 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.<sup>146</sup> In BW-12, Congress required FEMA to issue a rulemaking on a “methodology for determining the appropriate amounts that property and casualty insurance companies participating in the Write Your Own program should be reimbursed for selling, writing, and servicing flood insurance policies and adjusting flood insurance claims on behalf of the National Flood Insurance Program.”<sup>147</sup> This rulemaking was required within a year of enactment of BW-12. FEMA published an Advanced Notice of Proposed Rulemaking on revisions to the methodology for payments to WYO companies on July 8, 2019.<sup>148</sup>

A small private flood insurance market exists, which most commonly provides commercial coverage, coverage above the NFIP maximums, or coverage in the lender-placed market.<sup>149</sup> At the

---

<sup>142</sup> For a more detailed discussion of private flood insurance, see CRS Report R45242, *Private Flood Insurance and the National Flood Insurance Program*, by Diane P. Horn and Baird Webel.

<sup>143</sup> See primarily 42 U.S.C. §4081 and §4018, and 44 C.F.R. Part 62.

<sup>144</sup> 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](https://www.fema.gov/wyo_company).

<sup>145</sup> See CRS Report R44593, *Introduction to the National Flood Insurance Program (NFIP)*, by Diane P. Horn and Baird Webel.

<sup>146</sup> Stuart Mathewson, Patrick Causgrove, 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](https://www.actuary.org/pdf/casualty/AcademyFloodInsurance_Monograph_110715.pdf).

<sup>147</sup> P.L. 112-141, §100224; 126 Stat. 936.

<sup>148</sup> FEMA, “NFIP Revisions to Methodology for Payments to Write Your Own (WYO) Companies,” 84(130) *Federal Register* 32,371-32,379, July 7, 2019.

<sup>149</sup> The lender-placed or forced-place market is where lenders can force-place flood insurance on properties that are out

moment relatively few private insurers compete with the NFIP in the primary voluntary flood insurance market. Some suggest that this lack of competition has partly developed because the “non-compete clause”—a contractual restriction<sup>150</sup> placed on WYO carriers against offering standalone private flood products that compete with the NFIP—has in the past curtailed the potential involvement of the WYO companies.<sup>151</sup> In FY2019, however, FEMA removed 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.<sup>152</sup>

## **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.

FEMA’s subsidized rates are often seen as the primary barrier to private sector involvement in flood insurance.<sup>153</sup> 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.<sup>154</sup> FEMA’s new rating system, Risk Rating 2.0, which aims to more closely align premiums and an individual property’s flood risk,<sup>155</sup> could affect the competitive balance between the NFIP and private insurers.

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 provided for the acceptance of 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.<sup>156</sup> A final rule implementing this requirement was announced in February 2019 and took effect on July 1,

---

of compliance with the mandatory purchase requirement.

<sup>150</sup> 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](https://www.fema.gov/media-library-data/1504278934379-6bdf86cd243d53170e7ff8a2afc6770d/FY2018_Financial_Assistance_Subsidy_Arrangement_Oct_2017.pdf).

<sup>151</sup> 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>.

<sup>152</sup> 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.

<sup>153</sup> 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>.

<sup>154</sup> 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](http://www.floods.org/ace-files/documentlibrary/2012_NFIP_Reform/Reinsuring_NFIP_Insurance_Risk_and_Options_for_Privatizing_the_NFIP_Report.pdf).

<sup>155</sup> See FEMA, “NFIP Transformation and Risk Rating 2.0,” <https://www.fema.gov/nfiptransformation>; and “Risk Rating 2.0” in this report.

<sup>156</sup> 42 U.S.C. §4012a(b).

2019.<sup>157</sup> Press reports described it as generally welcomed by the banking industry,<sup>158</sup> but it is unclear to what extent this new rule will encourage private flood insurance or whether additional legislative changes might be needed if Congress seeks to further encourage development of the private flood insurance market.

Another barrier to the growth of the private insurance market has been FEMA’s policy on continuous coverage.<sup>159</sup> 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.<sup>160</sup> 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<sup>161</sup> prohibits FEMA from releasing policy and claims data which contains Personally Identifiable Information.<sup>162</sup>

## Reinsurance

In HFIAA, Congress revised the authority of FEMA to secure reinsurance for the NFIP from the private reinsurance and capital markets.<sup>163</sup> FEMA began larger-scale purchases of reinsurance in 2017. The specifics of each reinsurance purchase has varied, but in general, the reinsurance has been designed to pay a certain percentage of the losses from a single, large-scale event, with a higher percentage if losses are higher.<sup>164</sup> Coverage has typically started after \$4 billion in losses, a loss level that has only been reached by the NFIP in three events—Hurricane Katrina, Hurricane Sandy, and Hurricane Harvey. As of December 2019, the reinsurance purchases have been a net fiscal positive for the NFIP with a total of \$655 million in premiums paid and \$1.042 billion received from claims. This is due to the extremely high losses experienced after Hurricane Harvey, which resulted in over \$9 billion paid by the NFIP to policyholders. Unless another large-scale flooding event occurs, the balance of premiums vs. claims is likely to turn negative in the next two to three years if FEMA continues similar reinsurance purchases.

---

<sup>157</sup> Federal Reserve System, Farm Credit Administration, Federal Deposit Insurance Corporation, National Credit Union Administration, and Office of the Comptroller of the Currency, “New Rule Covers Private Flood Insurance,” press release, February 12, 2019, <https://www.occ.gov/news-issuances/news-releases/2019/nr-ia-2019-15.html>.

<sup>158</sup> See, for example, Sinnock, Bonnie, “Banks Claim Victory in New Private Flood Insurance Rule,” *American Banker*, February 11, 2019.

<sup>159</sup> 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>.

<sup>160</sup> 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>.

<sup>161</sup> P.L. 93-579, 5 U.S.C. §552a, as amended.

<sup>162</sup> Personally Identifiable Information (PII) is defined as any information that can be used to distinguish or trace an individual’s identity, either alone or when combined with other personal or identifying information that is linked or linkable to a specific individual. See 2 C.F.R. §200.79.

<sup>163</sup> See §10 of P.L. 113-89, 128 Stat. 1025, as codified at 42 U.S.C. §4081(e).

<sup>164</sup> For example, the 2019 traditional reinsurance purchase covers 14% of losses from \$4 billion to \$6 billion, 25.6% of losses from \$6 billion to \$8 billion, and 26.6% of losses greater than \$8 billion.

The purchase of private market reinsurance reduces the likelihood of FEMA needing to borrow from the Treasury to pay claims. 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.<sup>165</sup>

### **Provisions Related to Private Insurance in H.R. 3167**

- Section 107 would direct FEMA, if an NFIP policyholder switches to private flood insurance but has already paid the NFIP premiums for the whole year up front, to provide a prorated refund of the NFIP premium. This section would also direct that Increased Cost of Compliance (ICC) premiums<sup>166</sup> would not be refunded if measures had been implemented using ICC coverage, and that premiums would not be refunded if a claim has been paid or is pending under the policy term for which the refund is sought.
- Section 401 would direct FEMA to consider private flood insurance that satisfies the mandatory purchase requirement as also satisfying the continuous coverage requirement to keep NFIP premium subsidies in place.
- Section 404 would allow FEMA to provide current and historical property-specific information on flood insurance program coverage, flood damage assessments, and payment of claims to private insurers, on the condition that private insurers provide the same information to FEMA, homeowners and home buyers. Section 404 could potentially create conflicts with the Privacy Act of 1974, which prohibits federal agencies from releasing data which contains Personally Identifiable Information. In addition, although these data could be used to better inform the participation of private insurers in offering private flood insurance, 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.<sup>167</sup>
- Section 406 would require FEMA annually to evaluate ceding a portion of the risk of the NFIP to the private reinsurance or capital markets.
- Section 407 would give FEMA the authority to terminate any WYO arrangement in its entirety upon 30 days written notice for (1) fraud or misrepresentation; (2) nonpayment to FEMA of any amount due; or (3) material failure to comply with the requirements of the arrangement or with the written standards, procedures, or guidance by FEMA.

### **Provisions Related to Private Insurance in S. 2187**

- Section 302 would establish that the total amount of reimbursement paid to WYO companies could not be greater than 22.46% of the aggregate amount

<sup>165</sup> 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>.

<sup>166</sup> See “Increased Cost of Compliance (ICC) Coverage” in this report.

<sup>184</sup> 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>.

of premiums charged by the company. It would also require FEMA to ensure that the commission paid by a WYO company to agents of the company would not be less than 15%.

- Section 304 would require FEMA, within 12 months of enactment, to develop a schedule to determine the actual costs of WYO companies and reimburse the WYO companies only for the actual costs of the service or products. It would require that all reimbursements made to WYO companies be made public, including a description of the product or service provided to which the reimbursement pertains.
- Section 305 would require FEMA to report on the feasibility of selling or licensing the use of historical structure-specific NFIP claims data to non-governmental entities, while reasonably protecting policyholder privacy.
- Section 405 would require FEMA to establish penalties for underpayment of claims by WYO companies that are not less than the penalty for overpayment of a claim.
- Section 408 would give FEMA the authority to direct a WYO company, on 14 days' notice, to terminate a contract or other agreement with any covered entity<sup>168</sup> that provides services to the WYO company, if FEMA determines that the covered entity has engaged in conduct that is detrimental to the NFIP.
- Section 415 would authorize FEMA to create a pilot program under which WYO companies and NFIP direct servicers would be required to investigate pre-existing structural conditions that might result in the denial of an NFIP claim, at the request of a policyholder or potential policyholder, before providing or renewing flood insurance coverage.

## Flood Mapping

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. The main non-insurance policy goal of the NFIP is to mitigate and reduce the nation's comprehensive flood risk<sup>169</sup> through the development and implementation of floodplain management standards. To do this, 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. Currently FIRMs provide the basis for setting insurance rates, although this is to change with Risk Rating 2.0,<sup>170</sup> 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

---

<sup>168</sup> A covered entity is defined in S. 2187, §408, as any attorney, law firm, consultant, or third-party company that provides services to a WYO company.

<sup>169</sup> 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.

<sup>170</sup> See "Risk Rating 2.0" in this report.

defined, delineated, or established by the mapping program, based on an analysis of all natural hazards affecting flood risks.<sup>171</sup> 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 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.<sup>172</sup> In addition, the procedure to update maps is time consuming, in large part due to the lengthy statutory consultation and appeals process.<sup>173</sup>

In BW-12, Congress reestablished and reauthorized a body called the Technical Mapping Advisory Council (TMAC).<sup>174</sup> 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.<sup>175</sup> 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.<sup>176</sup> 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.<sup>177</sup> This report, the *Future Conditions* report, was submitted in final form in February 2016.<sup>178</sup> 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.<sup>179</sup> Further, among the information FEMA is required to include in the updating of

---

<sup>171</sup> 42 U.S.C. §4101(e).

<sup>172</sup> 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>.

<sup>173</sup> 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.

<sup>174</sup> 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.

<sup>175</sup> For a list of duties, see 42 U.S.C. §4101a(c).

<sup>176</sup> 42 U.S.C. §4101a(c)(6).

<sup>177</sup> 42 U.S.C. §4101a(d)(1)(A).

<sup>178</sup> 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](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.

<sup>179</sup> 42 U.S.C. §4101a(d)(2).

FIRMs, is “any other relevant information as may be recommended by the [TMAC].”<sup>180</sup> The 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<sup>181</sup> and the Office of Management and Budget (OMB) on the recommendations from the TMAC and how FEMA is addressing TMAC recommendations to improve flood insurance rate maps and flood risk data.<sup>182</sup> 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.<sup>183</sup> In addition to the *Future Conditions* report and the 2016 *National Flood Mapping Program Review*,<sup>184</sup> TMAC has produced three annual reports, for 2015, 2016, and 2017, and a summary of the 2018 annual report.<sup>185</sup>

## 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).<sup>186</sup> In FY2015, \$100 million was appropriated for flood hazard mapping and risk analysis; in FY2016, \$190 million was appropriated; in FY2017, \$175.5 million; in FY2018, \$262.6 million; and in FY2019, \$262.5 million.<sup>187</sup>

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.<sup>188</sup> 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 should be spent on floodplain management and mapping. In FY2017, FEMA received \$195 million from the FPF<sup>189</sup> and \$188.2 million in FY2018.<sup>190</sup>

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.<sup>191</sup> To the extent that the

---

<sup>180</sup> 42 U.S.C. §4101b(b)(3)(E).

<sup>181</sup> The Committee on Financial Services in the House of Representatives, and the Committee on Banking, Housing, and Urban Affairs in the Senate.

<sup>182</sup> Section 100215(1), Title II of P.L. 112-141, 126 Stat. 927, as codified at 42 U.S.C. §4101a(l).

<sup>183</sup> *Ibid.*

<sup>184</sup> See <https://www.fema.gov/media-library/assets/documents/111853>.

<sup>185</sup> See FEMA, *Technical Mapping Advisory Council*, <https://www.fema.gov/technical-mapping-advisory-council>.

<sup>186</sup> 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 Baird Webel.

<sup>187</sup> CRS analysis of P.L. 114-4, P.L. 114-113, P.L. 115-31, P.L. 115-141, and P.L. 116-6, respectively. See also CRS Report R44593, *Introduction to the National Flood Insurance Program (NFIP)*, by Diane P. Horn and Baird Webel.

<sup>188</sup> See 42 U.S.C. §4017(a)(4) and 42 U.S.C. §4017(f).

<sup>189</sup> FEMA *Watermark, FY2019, First Quarter*, <https://www.fema.gov/media-library-data/1554827313159-b4a0a3b6bf76a4fd1f046761e8c4fd00/FIMAWatermarkFY19Q11.6.pdf>.

<sup>190</sup> FEMA *Watermark, FY2019, Second Quarter*, [https://www.fema.gov/media-library-data/1561727044197-7d62fd895d1be2a136fbcc2b0a790ec7/FIMA\\_Watermark\\_FY19\\_Q2\\_DRAFT\\_1.\\_\(508compliant\).pdf](https://www.fema.gov/media-library-data/1561727044197-7d62fd895d1be2a136fbcc2b0a790ec7/FIMA_Watermark_FY19_Q2_DRAFT_1._(508compliant).pdf).

<sup>191</sup> Email correspondence from FEMA Congressional Affairs staff, December 6, 2016.

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.<sup>192</sup>

The section below describes selected provisions in H.R. 3167 and S. 2187 related to flood mapping. Additional provisions not described here relate to appeals and publication of projected Special Flood Hazard Areas, communication and outreach regarding map changes, adoption of partial flood maps, and membership of the TMAC. (See **Table 1**).

### **Provisions Related to Flood Mapping in H.R. 3167**

- Section 201 would reauthorize the National Flood Mapping Program at \$500 million annually for each of fiscal years 2019 to 2023.
- Section 202 would require FEMA, when updating maps, to include cadastral features<sup>193</sup> with the associated parcel identification data<sup>194</sup> and, where practicable, the address of such features. This section would also require FEMA to coordinate with the U.S. Geological Survey for the sharing of data from stream flow networks, and make a national geospatial data repository available to the public on the FEMA website. This data repository would be required to provide access to the raw data used to include the cadastral features and parcel identification data in FIRMs. Section 202 would also require FEMA, at least every five years, to verify that each FIRM contains data that is current and credible. This last provision would place additional responsibility on FEMA in relation to map updates. Currently FEMA is only required, once every five years or more often as the Administrator determines necessary, to assess the need to revise and update all floodplain areas and flood-risk zones defined, delineated, or established by the mapping process, based on an analysis of all natural hazards affecting flood risks.<sup>195</sup> FEMA could also incur additional costs associated with the acquisition of parcel identification. Section 202 could also create conflicts with the Privacy Act of 1974, which prohibits federal agencies from releasing data which contains Personally Identifiable Information.
- Section 203 would authorize FEMA to carry out a pilot program to make grants to units of local government to enhance the mapping of urban flooding and associated property damage and the availability of such mapped data to homeowners, businesses, and units of local government to enable them to minimize the risk of such flooding. Section 203 would also require FEMA to submit biennial progress reports to Congress and a final

---

<sup>192</sup> 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>.

<sup>193</sup> Cadastral features are defined in H.R. 3167, section 202, as geographic elements and features (A) that are independent of elevation, such as roads, structure footprints and rivers and lakes; (B) which are represented on maps to show the true location and size of elements in relation to each other, as they are seen from the air; and (C) that are mapped from lidar or aerial photography by employing basic photogrammetry.

<sup>194</sup> Parcel identification data is defined in H.R. 3167, section 202, as information associated with a parcel of land, including the geographic location, unique parcel identifier, boundaries, structures contained within the parcel, zoning classification, and owner.

<sup>195</sup> 42 U.S.C. §4101(e).

report to include recommendations for implementing strategies, practices, and technologies to mitigate the effects of urban flooding. This section would authorize to be appropriated \$1.2 million for FY2020 and \$4.3 million for FY2021, to remain available through 2023. This program would provide new information on urban flood risk, which is currently not addressed in NFIP flood models.

- Section 204 would expand mapping to all areas of the United States and would require FEMA, as soon as practicable, to (1) modernize the flood mapping inventory for communities for which FIRMs have not been modernized; (2) use the most current and most appropriate remote sensing or other geospatial mapping technology; (3) establish a digital display environment and building-specific flood hazard and risk information, not later than five years after enactment; and (4) use this digital display environment to produce, store, and disseminate flood hazard data, models, and maps. Section 204 also prohibits FEMA from disseminating the data collected for the digital display environment to the public or to a private company in a manner that violates the Privacy Act of 1974. This section would also require FEMA, with TMAC, to submit an annual report regarding progress achieved under this section and provide financial and technical assistance to communities to incorporate future flood hazard conditions as an informational layer on their FIRMs.
- Section 205 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.<sup>196</sup> Certain expenses would also be refunded or reimbursed under this provision.
- Section 209 would require FEMA to develop a new flood zone designation for areas behind non-accredited levees,<sup>197</sup> 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.

### **Provisions Related to Flood Mapping in S. 2187**

- Section 208 would continue existing authorization of the National Flood Mapping Program at \$400 million annually for each of fiscal years 2020 through 2025. This section would also require the TMAC to establish a set

---

<sup>196</sup> For further information on the Scientific Resolution Panel, see <https://www.floodsrp.org/index.php>.

<sup>197</sup> 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>.

of standards for states and local governments and organizations to use in mapping risk and developing alternative maps to NFIP Flood Insurance Rate Maps (FIRMs) within one year after enactment. This section would also require TMAC to develop a procedure for certification of such maps by FEMA within 90 days of submission in the case of any area covered by a FIRM that has not been updated or reissued during the preceding three-year period. Upon certification, the 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 before the expiration of the three-year period beginning on the date of submission to FEMA. Section 208 would also authorize partnerships with other federal agencies and private entities to facilitate mapping and require FEMA to use the most up-to-date remote sensing and mapping technology. Section 208 would require FEMA to establish a digital display environment incorporating building-specific flood hazard and risk information, not later than five years after enactment. FEMA would not be allowed to disseminate this database to any person other than the owner or leaseholder of a property contained in the database. Section 208 also would offer an NFIP policyholder a one-time premium credit of not more than \$500 to be used for either the purchase of an elevation certificate or for appealing the chargeable premium rate for the property. This section 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. Certain expenses also would be refunded or reimbursed under this provision.

- Section 209 would require FEMA to develop a new flood zone designation for areas behind non-accredited levees, and make flood insurance available to properties located within those levee-impacted areas at actuarial rates based upon the risks appropriate for the level of protection that the levee affords. 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.
- 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 could provide a mechanism by which private insurance companies could contribute to the costs of floodplain mapping in lieu of paying the FPF.

## **Flood Mitigation**

Flood 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 mitigation creates safer communities and can save money for individuals and taxpayers.<sup>198</sup> The importance of FEMA's mitigation program is illustrated by research findings that for every \$1 invested by FEMA in flood mitigation between 1993 and 2003, society as a whole saved \$7 due to reduced future flood losses.<sup>199</sup> The NFIP encourages

---

<sup>198</sup> 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>.

<sup>199</sup> National Institute of Building Sciences, *Natural Hazard Mitigation Saves: 2017 Interim Report*, Washington, DC,

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.<sup>200</sup> For example, 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.<sup>201</sup>

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 FMA Grant Program, and ICC coverage.

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 CRS.<sup>202</sup>

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.<sup>203</sup> As of June 2017, FEMA estimated that only 5% of eligible NFIP communities participated 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.<sup>204</sup> Although the CRS discounts reduce flood insurance premiums for individual communities, CRS discounts are 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 is cross-subsidized and shared across NFIP communities through a cost (or load) increase of 13.3% to overall premiums.<sup>205</sup>

---

2017, p. 137, [http://www.nibs.org/page/ms2\\_download](http://www.nibs.org/page/ms2_download). 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.

<sup>200</sup> U.S. Congress, House Committee on Financial Services, *Flood Insurance Reform: FEMA’s Perspective*, Statement of Roy E. Wright, Deputy Associate Administrator, FIMA, 115<sup>th</sup> Cong., 1<sup>st</sup> sess., March 8, 2017, H.Hrg.115-BA04-WrightR-20170309 (Washington: GPO, 2017), p. 1.

<sup>201</sup> FEMA, *Losses Avoided from Hurricane Matthew in North Carolina*, Washington, DC, October 2016, [https://www.fema.gov/media-library-data/1492193978587-8b228ed3251229b6a86dac730e56e925/FEMA\\_Factsheet\\_NC\\_LAS\\_508\\_April2017.pdf](https://www.fema.gov/media-library-data/1492193978587-8b228ed3251229b6a86dac730e56e925/FEMA_Factsheet_NC_LAS_508_April2017.pdf).

<sup>202</sup> A. Atreya, S. Hanger, 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](http://opim.wharton.upenn.edu/risk/library/WP2015_FloodInsurancePrograms-25Countries_2015-06-28.pdf).

<sup>203</sup> 42 U.S.C. §4022(b)(1).

<sup>204</sup> See FEMA, *Community Rating System Fact Sheet*, June 2017, [https://www.fema.gov/media-library-data/1507029324530-082938e6607d4d9eba4004890dbad39c/NFIP\\_CRS\\_Fact\\_Sheet\\_2017\\_508OK.pdf](https://www.fema.gov/media-library-data/1507029324530-082938e6607d4d9eba4004890dbad39c/NFIP_CRS_Fact_Sheet_2017_508OK.pdf).

<sup>205</sup> A more recent average Community Rating System premium discount is not available; however, according to FEMA

To reduce comprehensive flood risk, FEMA also operates an FMA Grant Program<sup>206</sup> that is funded through revenue collected by the NFIP,<sup>207</sup> with the goal of mitigating flood-damaged properties to reduce or eliminate NFIP claims. 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.<sup>208</sup> In FY2019, the FMA Program was authorized to use \$175 million of NFIP revenue, with \$160 million available for FMA grants.<sup>209</sup> States, tribal governments, territories, and local

communities can apply for FMA grants. Generally, federal funding is available for up to 75% of eligible costs. However, FEMA may contribute up to 90% for repetitive loss properties<sup>210</sup> and up to 100% for severe repetitive loss properties.

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.<sup>211</sup> The NFIP currently uses more than one definition of repetitive loss. The statutory definition of a repetitive loss structure is used for applications for FMA grants. A slightly different definition is used for ICC coverage.<sup>212</sup> A third definition is used for internal

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.

**Source:** 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.

it changes very little from year to year. Email correspondence from FEMA Congressional Affairs staff, August 2, 2018.

<sup>206</sup> In BW-12, Congress mandated that the grant assistance previously delivered by the Repetitive Flood Claims (RFC) and the Severe Repetitive Loss (SLR) grant programs should be unified into a single program, FMA, by rescinding the authorization for the SLR program and the RFC program. See subsections 100225(b) and (c) of P.L. 112-141, respectively.

<sup>207</sup> 42 U.S.C. §4104c.

<sup>208</sup> 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, *FY2018 Flood Mitigation Assistance (FMA) Grant Program Fact Sheet*, August 14, 2018, <https://www.fema.gov/media-library/assets/documents/168194>.

<sup>209</sup> See P.L. 116-6 and FEMA, *FY2019 Flood Mitigation Assistance (FMA) Grant Program*, Fact Sheet, Washington, DC, August 26, 2019, <https://www.fema.gov/media-library-data/1566838228911-f228284e94d43af0d6b16214dcf07f63/FMAFactSheetFY19Aug2019.pdf>.

<sup>210</sup> 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. See 42 U.S.C. §4121(a)(7).

<sup>211</sup> 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>; "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>; and Stephen M. Stradler, "How We Create Our Own Hurricane Catastrophes," *The New York Times*, August 30, 2019, <https://www.nytimes.com/2019/08/30/opinion/florida-hurricane.html>.

<sup>212</sup> The definition of a repetitive loss structure used for Increased Cost of Compliance Coverage is a building covered

tracking of insurance data,<sup>213</sup> with a slightly different definition used for the CRS.<sup>214</sup> The definition of severe repetitive loss property is consistent across program elements in the NFIP, using the statutory definition.<sup>215</sup>

### Provisions Related to Flood Mitigation in H.R. 3167

- Section 105 would authorize FEMA to enter into agreements with eligible states and insular areas<sup>216</sup> to provide capitalization grants for the eligible state to establish a state revolving fund<sup>217</sup> for flood mitigation. These state revolving funds would be used to assist homeowners, businesses, certain non-profit organizations, and communities to reduce flood risk in order to decrease the loss of life and property, the cost of flood insurance, and federal disaster payments. A participating state would not be able to receive more than 15% of the total fund in a given fiscal year, with any remainder above this limit to be reallocated to the non-capped states. FEMA would be required to reserve at least 5% of the amount made available in a given fiscal year for tribal governments and insular areas. All participating states would be required to provide matching funds from nonfederal sources in an amount equal to 15% of the amount that the state receives for the revolving fund. States would be required to give priority, to the maximum amount practicable, to projects that (1) address severe repetitive loss and repetitive loss structures; (2) assist low-income homeowners<sup>218</sup> and low-income geographical areas;<sup>219</sup> and (3) address flood risk for pre-FIRM buildings. States would be authorized to provide additional subsidization to recipients from low-income households or geographical areas, including forgiveness of the principal of a loan. Finally, section 105 would authorize to be appropriated \$50 million for each of fiscal years 2020 through 2024.

---

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. FEMA, *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>.

<sup>213</sup> 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.

<sup>214</sup> The definition of a repetitive loss property used by the Community Rating System is a property for which two or more NFIP losses of at least \$10,000 each have been paid within any 10-year rolling period since 1978. See FEMA, *National Flood Insurance Program Community Rating System Coordinator's Manual*, FIA-15/2017, Washington, DC, May 4, 2017, pp. 120-127, <https://www.fema.gov/media-library/assets/documents/8768>.

<sup>215</sup> 42 U.S.C. §4014(h) and 44 C.F.R. §79.2(h).

<sup>216</sup> In H.R. 3167, the term “eligible state” means a state, the District of Columbia, and the Commonwealth of Puerto Rico. The term “insular area” means Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, the Federated States of Micronesia, the Republic of the Marshall Islands, the Republic of Palau, and the U.S. Virgin Islands. The discussion in this report will refer to both states and insular areas as states.

<sup>217</sup> For examples of long-standing state revolving funds, see CRS In Focus IF10883, *Overview of U.S. Environmental Protection Agency (EPA) Water Infrastructure Programs and FY2018 Appropriations*, by Mary Tiemann and Jonathan L. Ramseur; and CRS Report R45304, *Drinking Water State Revolving Fund (DWSRF): Overview, Issues, and Legislation*, by Mary Tiemann.

<sup>218</sup> A low-income homeowner is defined in this context as the owner of a primary residence, the household income of which in a taxable year is not more than 80% of the median income for the area in which the property is located.

<sup>219</sup> A low-income geographical area is defined as an area described in paragraph (1) or (2) in Section 301(a) of the Public Works and Economic Development Act of 1965 (42 U.S.C. §3161(a)).

Although state revolving funds have a long history related to clean water and drinking water, this would be the first time that such a fund has been set up at the national level to fund flood mitigation.<sup>220</sup>

- Section 210 would allow state or local zoning authorities to grant local variances for agricultural structures in SFHAs if they determine that (1) elevation or flood-proofing of such a structure is not practicable; (2) the repair or improvement of the structure would not result in any increase in base flood levels during the base flood discharge, threats to public safety, or extraordinary public expense; and (3) not more than one NFIP claim payment exceeding \$1,000 has been made for the structure within the 10 years prior to the granting of the variance.
- Section 302 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 in excess of the loss-deductible have been made. 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. Section 302 would also allow FEMA to consider the extent to which a community is working to remedy problems with addressing repeatedly flooded areas in making determinations regarding financial assistance. 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.
- Section 303 would require FEMA to offer policyholders a reduction of the risk premium rate, as determined by the Administrator, for the use of approved actions that mitigate the flood risk of their property, including mitigation techniques for buildings in dense urban environments, methods that can be deployed on a block or neighborhood scale, and the elevation of mechanical or other critical systems. This would expand on existing statutory authority by specifically requiring FEMA to provide the premium reduction for approved mitigation methods.
- Section 305 would require FEMA to create a voluntary community-based flood insurance pilot project to make available, for purchase by participating communities, a single community-wide flood insurance policy. This community policy would cover all residential and non-residential properties in the community and would satisfy the mandatory purchase requirement. A community flood insurance policy would have to include a method of preventing redundant claims payments (in the case of an individual property

---

<sup>220</sup> Connecticut established a revolving fund called Shore Up Connecticut, which was funded by \$25 million in bond funding authorized by the Connecticut legislature in 2014, but which stopped accepting new applications in 2016. Virginia established the Virginia Shoreline Resiliency Fund in 2016, but has not yet funded it. See <http://www.ctrecovers.ct.gov/ctrecovers/cwp/view.asp?a=4498&Q=540106> and <http://lis.virginia.gov/cgi-bin/legp604.exe?161+sum+SB0282>.

owner who is covered by both a community flood insurance policy and an individual NFIP policy). FEMA would be required to establish the pilot program within 180 days of enactment, and the program would terminate on September 30, 2022. There is no mention of how the pilot program would treat residents of a community with a community-wide NFIP policy who are also covered by private flood insurance.

- Section 306 would authorize to be appropriated \$200 million per year for each of the first five fiscal years after enactment to carry out the Flood Mitigation Grant Assistance Program (FMA); this is an increase compared to the authorization of \$160 million in FY2019.
- Section 307 would require FEMA to provide Community Rating System (CRS) credits for measures that protect natural and beneficial floodplain functions,<sup>221</sup> and would also require FEMA to provide CRS credits to the maximum number of communities practicable. It would also require FEMA to carry out a program to make grants to consortia of states and communities for the cost of employing or retaining an individual or individuals to coordinate and carry out responsibilities related to participation in the CRS. This section would authorize \$7 million per fiscal year for five fiscal years to be appropriated for these grants.
- Section 308 would require FEMA to develop a community assistance program to increase the capacity of states, tribes, and communities to manage flood risk effectively and participate in the NFIP. This section would authorize to be appropriated \$20 million per year for each of fiscal years 2019 through 2024. Section 308 also authorizes FEMA to set aside such amounts as the Administrator considers appropriate for additional assistance to states that exceed the criteria for awarding these grants.

### **Provisions Related to Flood Mitigation in S. 2187**

- Section 201 would require the President to set aside from the Disaster Relief Fund (DRF)<sup>222</sup> an amount equal to 10% of the average amount appropriated to the DRF during the previous 10 fiscal years to provide assistance for mitigation activities for severe repetitive loss structures and properties insured under the NFIP with the largest increase in actuarial risk for the property compared to the actuarial risk for the previous fiscal year as a result of Risk Rating 2.0, as in effect on October 1, 2020.<sup>223</sup> This would represent the first time in which the NFIP would receive any funding from the DRF.
- Section 203 would give priority under the FMA program to grants for carrying out mitigation activities that reduce flood damage to (1) repetitive-loss properties; (2) properties for which FEMA determines the premium rates are unaffordable or will soon become unaffordable as a result of a risk adjustment under Risk Rating 2.0; and (3) properties for which aggregate

---

<sup>221</sup> The current statute says that the Administrator may offer credits for measures that protect natural and beneficial floodplain functions (42 U.S.C. §4022(b)(2)).

<sup>222</sup> For more information on the Disaster Relief Fund (DRF), see CRS Report R45484, *The Disaster Relief Fund: Overview and Issues*, by William L. Painter.

<sup>223</sup> See “Risk Rating 2.0” in this report.

losses exceed the replacement value of the properties. In this context, unaffordable is defined as premium rates that are in such an amount that they cause housing costs to exceed 30% of the household's adjusted gross income for the year. This section would also authorize to be appropriated \$1 billion for each of the first five full fiscal years after the date of enactment to provide mitigation assistance under this section; this is an increase compared to the authorization of \$160 million in FY2019.

- Section 204 would require 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 would expand on existing statutory authority by specifically requiring FEMA to provide the premium reduction for approved mitigation methods.
- Section 205 would require FEMA to appoint a regional coordinator in each region served by a FEMA Regional Office 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. Because FEMA only has 10 regions, this provision would allow for a smaller number of CRS coordinators than could potentially be appointed under Section 307 of H.R. 3167, as described above.
- Section 206 would authorize FEMA to create a low-interest mitigation loan program for NFIP policyholders to be used to undertake mitigation measures with respect to the insured property that cost less than the overall reduction in the risk of the property over 50 years. These loans would be available to all types of residences.
- Section 207 would authorize FEMA to enter into agreements with eligible states and insular areas to provide capitalization grants for the eligible state to establish a state revolving fund for flood mitigation. The provisions in this section are the same as those in Section 105 of H.R. 3167, except that Section 207 authorizes to be appropriated such sums as may be necessary to carry out this section for fiscal years 2020 through 2029. Section 207 would also require FEMA to consider activities funded through amounts for a state loan fund in setting NFIP premium rates. This would be the first time that a state revolving fund has been set up at the national level to fund flood mitigation.
- Section 210 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.

## **Increased Cost of Compliance (ICC) Coverage**

The NFIP requires most policyholders<sup>224</sup> to purchase ICC coverage, which is in effect a separate insurance policy to offset the expense of complying with more rigorous building code standards

---

<sup>224</sup> For example, ICC coverage is not required on condominium units and content-only policies.

when local ordinances require them to do so. This ICC coverage is authorized in law, with rates for the coverage as well as how much can be paid out for claims, set by FEMA.<sup>225</sup> The amount that can be charged for ICC coverage is capped in law at \$75 per year;<sup>226</sup> currently, ICC premiums vary between \$4 and \$70. ICC coverage provides an amount up to \$30,000 in payments for certain eligible expenses.<sup>227</sup> 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. FEMA's current 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.

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).<sup>228</sup> 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,<sup>229</sup> and suggestions have been made for years that the amount of ICC coverage should be raised.<sup>230</sup>

### Provisions Related to Increased Cost of Compliance Coverage in H.R. 3167

- Section 301 would increase the amount of ICC coverage to \$60,000, and would exempt the ICC payment amount from the maximum payout of an NFIP policy. This section would also make ICC coverage available to properties identified by FEMA as priorities for mitigation activities before the occurrence of damage. 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. Section 301 would also allow policyholders to use ICC coverage for alternative mitigation methods to reduce flood risk for residential buildings that cannot be elevated due to their structural characteristics, for pre-disaster mitigation projects, and for costs associated with the purchase, clearing, and stabilization of property that is part of an acquisition or relocation program that complies with the provisions set out in Section 301.

### Provisions Related to Increased Cost of Compliance Coverage in S. 2187

- Section 202 would increase ICC coverage to \$60,000 and would exempt ICC payment amounts from the maximum payout of an NFIP policy. This

---

<sup>225</sup> 42 U.S.C. §4011(b).

<sup>226</sup> *Ibid.*

<sup>227</sup> See FEMA, *Flood Insurance Manual, Before You Start: Coverage D – Increased Cost of Compliance (ICC) Coverage*, Revised October 2019, p. 2-15, [https://www.fema.gov/media-library-data/1569523554826-8c1d47a539c8e21b3b8f80cf7b108fae/2\\_before-you\\_start\\_oct2019.pdf](https://www.fema.gov/media-library-data/1569523554826-8c1d47a539c8e21b3b8f80cf7b108fae/2_before-you_start_oct2019.pdf).

<sup>228</sup> FEMA, *NFIP: Use of Increased Cost of Compliance Coverage*, FY2009 Report to Congress, October 2009, p. 6. Report provided by FEMA Congressional Affairs Staff.

<sup>229</sup> Aerts, J.C.J.H., Botzen, W.J.W., 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.

<sup>230</sup> 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/ASFPM\\_ICC\\_Positions\\_Recommendations\\_0807.pdf](http://www.floods.org/PDF/ASFPM_ICC_Positions_Recommendations_0807.pdf); FEMA, *NFIP: Use of Increased Cost of Compliance Coverage*, FY2009 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>.

section would also make ICC coverage available to properties identified by FEMA as priorities for mitigation activities before the occurrence of damage, which 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. Section 202 would also allow policyholders to use ICC coverage for alternative mitigation methods to reduce flood risk for residential buildings that cannot be elevated due to their structural characteristics, for pre-disaster mitigation projects, and for costs associated with the purchase, clearing, and stabilization of property that is part of an acquisition or relocation program that complies with the provisions set out in this section. Section 202 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.

## **NFIP Modernization and Administrative Reform**

Only the disclosure requirements and requirements for studies of the NFIP will be discussed in this report. **Table 1** identifies all of the provisions in H.R. 3167 and S. 2187 which are related to administrative reform.

Although some individual states<sup>231</sup> require real estate transactions to be accompanied by a disclosure of information pertaining to flood or other hazards, there is currently no federal requirement for sellers to disclose flood risk and flood history. Property owners may not have knowledge of the entire past flood history of their property. Under the mandatory purchase requirement, lenders are only required to inform buyers of flood hazards before closing on the loan. The primary purpose of this disclosure is to notify properties located within a SFHA that flood insurance is required as a condition of the loan. This disclosure, late in the process of buying a property, may mean that the buyer has put down money or otherwise committed to purchasing the property. Lenders are not necessarily required to disclose the full flood history of a property, but only the requirement to purchase flood insurance based on its location in a SFHA.

### **Provisions Related to Disclosure in H.R. 3167**

- Section 404 would require FEMA to provide information on flood insurance program coverage, flood damage assessments, and payment of claims on a property to homeowners, with an additional requirement to provide information on whether the property owner may be required to purchase flood insurance due to a previous receipt of federal disaster assistance. This section would also require FEMA to provide information on the number and dollar value of flood insurance claims filed for a property over the life of the property, and other available information to characterize the true flood risk of the property, within 14 days of a request for such information by a buyer under contract for purchase of a property. This disclosure requirement may affect properties with a flood history during real estate transactions by reducing the likelihood of the sale of the property or reducing its value.

---

<sup>231</sup> See, for example, National Association of Realtors, *State Flood Hazard Disclosures Survey*, February 2019, [https://www.nar.realtor/sites/default/files/documents/2019\\_State\\_Flood\\_Disclosures\\_Table\\_final.pdf](https://www.nar.realtor/sites/default/files/documents/2019_State_Flood_Disclosures_Table_final.pdf).

### **Provisions Related to Disclosure in S. 2187**

- Section 417 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 or lessor of improved real estate to provide to any purchaser or lessee a property flood hazard disclosure. The same requirements would apply to lessors of a rental property with a lease of 30 days or longer. This disclosure requirement may affect properties with a flood history during real estate transactions by reducing the likelihood of the sale of the property or reducing its value, or causing prospective lessors to reject the lease. However, this provision could also encourage a higher take-up of contents coverage by renters.

### **Provisions Related to Studies of the NFIP in H.R. 3167<sup>232</sup>**

- Section 403 would require FEMA to provide for an independent actuarial study of the financial position of the NFIP to be conducted annually and submit a report to Congress describing the results of the study.

### **Provisions Related to Studies of the NFIP in S. 2187<sup>233</sup>**

- Section 105 would require FEMA to conduct a study by September 30 of the second full fiscal year after enactment on the benefits and feasibility of offering coverage for business interruption losses caused by floods in NFIP policies.
- Section 402 would require FEMA to conduct a study within one year of enactment on the consequences of street-raising on flood insurance coverage for affected properties, including the cost implications for the property owner. The findings of this study would be particularly relevant for policyholders with ground floor residential and business properties which could become basement properties if the adjacent street were to be raised.
- Section 405 would require GAO to submit a report not later than two years after enactment on any fines or other penalties imposed by FEMA for the underpayment of claims by WYO companies.

## **Future Flood Losses**

In the future, and in the context of land development, improved flood mapping, and climate change, an increased number of properties are likely to be identified as 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%.<sup>234</sup> The study found that no significant decreases in floodplain depth or area are anticipated

---

<sup>232</sup> See also the sections on “Provisions Related to the Mandatory Purchase Requirement in H.R. 3167” and “Provisions Related to Increasing Participation in H.R. 3167” in this report, which describe other studies required by H.R. 3167.

<sup>233</sup> See also the sections on “Provisions Related to the Mandatory Purchase Requirement in S. 2187,” “Provisions Related to Increasing Participation in S. 2187” and “Provisions Related to Private Insurance in S. 2187” in this report, which describe other studies required by S. 2187.

<sup>234</sup> 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>.

for any region of the nation at the median estimates; 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.<sup>235</sup> 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 even without any climate change. NFIP models currently do not include pluvial flood risk, but are to include such risks in premium rates with the introduction of Risk Rating 2.0. The National Academies of Science has warned that a warming climate will likely increase the risk of pluvial flooding, as a warmer atmosphere holds more moisture, increasing the frequency and/or intensity of heavy rainfall events.<sup>236</sup> The number and intensity of heavy precipitation events, as well as precipitation totals, have increased across most of the United States since 1950.<sup>237</sup> The largest increases in heavy precipitation events have occurred in the Midwest and Northeast, and such events are predicted to increase in those areas by 40% by 2100.<sup>238</sup> For the coastal environment, the typical increase in the coastal SFHA is projected to be about 55% by 2100,<sup>239</sup> with model results indicating increased variability in expected total losses in any given year, which may be greater than the NFIP's current funding borrowing structure accommodates.<sup>240</sup>

Increased flooding is not only a concern for the future; many areas are already experiencing 'nuisance flooding' or 'sunny day 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.<sup>241</sup> 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. Flood costs can be considerable even in years without a named storm or event. For example, storms like the South Carolina floods in 2015 and the Louisiana floods in 2016 have demonstrated the scale of losses possible from heavy rainfall. In addition, Hurricanes Harvey (2017) and Florence (2018) showed that losses from pluvial flooding can rival or exceed coastal flood losses in a hurricane.

---

<sup>235</sup> Ibid.

<sup>236</sup> National Academies of Sciences, Engineering, and Medicine, *Framing the Challenges of Urban Flooding in the United States*, Washington, DC, March 29, 2019, p. 71, <https://www.nap.edu/catalog/25381/framing-the-challenge-of-urban-flooding-in-the-united-states>.

<sup>237</sup> Katharine Hayhoe, Donald J. Wuebbles, David R. Easterling, et al., editors, *Impacts, Risks, and Adaptation in the United States*, U.S. Global Change Research Program, Fourth National Climate Assessment, Volume II: Chapter 2, Our Changing Climate, Washington, DC, 2018, pp. 88-91, <https://data.globalchange.gov/report/nca4>.

<sup>238</sup> National Academies of Sciences, Engineering, and Medicine, *Framing the Challenges of Urban Flooding in the United States*, Washington, DC, March 29, 2019, p. 71, <https://www.nap.edu/catalog/25381/framing-the-challenge-of-urban-flooding-in-the-united-states>.

<sup>239</sup> Ibid.

<sup>240</sup> Ibid.

<sup>241</sup> Ezer, Tal and Atkinson, Larry P., "Accelerated Flooding Along the U.S. 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.

## **Flooding Outside the SFHA**

Currently the NFIP distinguishes between the SFHA (1%-annual-chance-floodplain) and the area beyond the SFHA, yet approximately 33% of NFIP claims are for properties outside SFHAs.<sup>242</sup> Recent floods have significantly 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. Although the introduction of Risk Rating 2.0 will eliminate the “in/out” line for premium rates, the SFHA boundary will continue to be used for the mandatory purchase requirement.

Future flood maps may also need to find a way to communicate temporal variation in flood risk. Under Risk Rating 2.0, FIRMs will continue to be used for floodplain management; however, FIRMs represent 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. For example, New York City and FEMA have developed 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. This map will not be used to price flood insurance premiums.<sup>243</sup>

## **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. Flooding 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.<sup>244</sup>

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 reserve fund assessment, the HFIAA surcharge, and the purchase of reinsurance. 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. The NRC suggested

---

<sup>242</sup> Email correspondence from FEMA Congressional Affairs staff, December 13, 2019.

<sup>243</sup> See 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>; Renee Cho, *How New York City is Preparing for Climate Change*, Columbia University Earth Institute, New York, NY, April 26, 2019, <https://blogs.ei.columbia.edu/2019/04/26/new-york-city-preparing-climate-change/>; and NYC Department of City Planning, *NYC Flood Hazard Mapper*, <https://www1.nyc.gov/site/planning/data-maps/flood-hazard-mapper.page>.

<sup>244</sup> 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](http://www.floods.org/ace-files/documentlibrary/2012_NFIP_Reform/Reinsuring_NFIP_Insurance_Risk_and_Options_for_Privatizing_the_NFIP_Report.pdf).

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 appropriation. Taken together, the NRC 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 to policyholders who face unaffordable premiums.<sup>245</sup>

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 private 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.<sup>246</sup> 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 multi-decadal time horizon. The AAA report suggested that prospectively addressing this 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.<sup>247</sup>

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 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.<sup>248</sup> It may also include a metric for communicating the resiliency of the system to different levels of

---

<sup>245</sup> 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>.

<sup>246</sup> 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, <http://www.actuary.org/files/publications/FloodMonograph.04192017.pdf>.

<sup>247</sup> *Ibid.*

<sup>248</sup> 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](http://www.floods.org/ace-files/documentlibrary/2012_NFIP_Reform/Reinsuring_NFIP_Insurance_Risk_and_Options_for_Privatizing_the_NFIP_Report.pdf).

catastrophic events, in order to define the scenarios that the system can sustain and those it cannot.<sup>249</sup>

## Concluding Comments

GAO concluded that the sequence of actions taken by Congress in NFIP reform 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.<sup>250</sup>

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 scenario 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 possibility 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. In the third scenario, property owners and other floodplain or coastal zone inhabitants bear the costs for losses that are uninsured or otherwise uncompensated.<sup>251</sup> 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), taxpayers, and the uninsured, requiring potentially difficult policy choices by Congress.

---

<sup>249</sup> Ibid.

<sup>250</sup> 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>.

<sup>251</sup> 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 I. Provisions in NFIP Reauthorization Legislation**

<b>H.R. 3167</b>	<b>S. 2187</b>
<b>Premiums and Surcharges</b>	
§103. Premium and fees relief for families and small businesses.	§102. Cap on annual premium increases.
§104. Monthly installment payment of premiums.	§104. Optional monthly installment premium payment plans.
§106. Use of replacement cost in estimating premium rates.	§106. Cooperative coverage fairness.
§304. Coverage for cooperatives.	§107. Coverage limits.
§402. Optional coverage for umbrella policies.	
<b>Debt and Borrowing</b>	
	§301. Forbearance on NFIP interest payments.
<b>Affordability</b>	
§102. Demonstration program for policy affordability.	§103. Means-tested affordability voucher.
<b>Increasing Participation</b>	
§408. Study on increasing participation.	§108. Study on participation rates.
<b>Private Flood Insurance</b>	
§107. Refund of premiums upon cancellation of policy because of replacement with private flood insurance.	§302. Cap on Write Your Own company compensation.
§401. Effect of private flood insurance coverage on continuous coverage requirements.	§304. Vendor costs; transparency.
§404. Sharing of and access to information.	§305. Availability of NFIP claims data.
§406. Leveraging risk transfer opportunities for a sound financial framework.	§405. Accountability for underpayments and overpayments by WYO companies.
§407. Write-Your-Own arrangements.	§408. Authority to terminate contractors and vendors.
<b>Flood Mapping</b>	
§201. Reauthorization of appropriations for NFIP mapping program.	§208. Mapping modernization.
§202. National flood mapping program.	§209. Protected areas.

---

**H.R. 3167**

§203. Flood mapping modernization and homeowner empowerment pilot program.

§204. Mapping improvements and reach.

§205. Appeals regarding existing flood maps.

§206. Appeals and publication of projected Special Flood Hazard Areas.

§207. Communication and outreach regarding map changes.

§208. Adoption of partial flood maps.

§209. New zone for levee-impacted areas.

§211. Technical Mapping Advisory Council.

---

**Flood Mitigation**

§105. State revolving loan funds for low-interest loans.

§210. Agricultural structures in Special Flood Hazard Areas.

§301. Increased cost of compliance coverage.

§302. Multiple-loss properties.

§303. Premium rates for certain mitigated properties.

§305. Voluntary community-based flood insurance pilot project.

§306. Mitigation funding.

§307. Community Rating System improvements.

§308. Community assistance program for effective floodplain management.

---

**Administrative Reform**

§405. Elevation certificates.

---

**S. 2187**

§303. Taxpayer protection.

§201. Mitigation for high-risk properties.

§202. Increased cost of compliance coverage.

§203. Flood mitigation assistance grants.

§204. Urban mitigation opportunities.

§205. Community Rating System regional coordinator.

§206. Mitigation loan funds.

§207. Revolving loan funds.

§210. Community-wide flood mitigation activities.

§306. Refusal of mitigation assistance.

§401. Earth movement fix and engineer standards.

§403. Guidance on remediation and policyholder duties.

§404. Appeal of decisions relating to flood insurance coverage.

§406. Policyholder right to know.

§407. Increasing statute of limitations for lawsuits.

---

**H.R. 3167****S. 2187**

---

*§409. Easing of proof of loss requirements.*

*§410. Deadline for claim processing.*

*§411. No manipulation of engineer reports.*

*§412. Improved training of floodplain managers, agents, and adjusters.*

*§413. Attorney fee shifting.*

*§414. DOJ defense against policyholder lawsuits.*

*§416. Agent Advisory Council.*

*§417. Disclosure of flood risk information upon transfer of property.*

---

**Pilot Programs and Studies**

---

§403. Annual independent actuarial study.

§105. Study on business interruption coverage.

§402. Coverage of pre-FIRM condominium basements and study on street raising.

§415. Pilot program for pre-existing conditions.

---

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

**Notes:** H.R. 3167, as reported by the House Financial Services Committee (H.Rept. 116-262, Part I).

- a. Most of the administrative reform provisions are in H.R. 3111, the National Flood Insurance Program Administrative Reform Act of 2019, rather than H.R. 3167. The provisions listed in italics are not discussed in this report.

## **Author Information**

Diane P. Horn  
Analyst in Flood Insurance and Emergency  
Management

Baird Webel  
Specialist in Financial Economics

---

## **Disclaimer**

This document was prepared by the Congressional Research Service (CRS). CRS serves as nonpartisan shared staff to congressional committees and Members of Congress. It operates solely at the behest of and under the direction of Congress. Information in a CRS Report should not be relied upon for purposes other than public understanding of information that has been provided by CRS to Members of Congress in connection with CRS's institutional role. CRS Reports, as a work of the United States Government, are not subject to copyright protection in the United States. Any CRS Report may be reproduced and distributed in its entirety without permission from CRS. However, as a CRS Report may include copyrighted images or material from a third party, you may need to obtain the permission of the copyright holder if you wish to copy or otherwise use copyrighted material.