



September 9, 2024

Federal Emergency Management Agency
Regulatory Affairs Division, Office of the Chief Council
500 C Street, SW
Washington, DC 20472

Via regulations.gov

Re: Comments of the International Code Council on FEMA’s Request for Information (RFI) on the National Flood Insurance Program’s (NFIP) Community Rating System (CRS) Redesign Effort (Docket ID: FEMA-2024-0022)

The International Code Council (ICC) is a nonprofit organization of over 700 employees – driven by the engagement of its more than 60,000 members – dedicated to helping communities and the building industry provide safe, resilient, and sustainable construction through the development and use of model codes and standards used in design, construction, and compliance processes. Most U.S. states and communities, federal agencies, and many global markets choose the International Codes® (I-Codes®) to set the standards for regulating construction and major renovations, plumbing and sanitation, fire prevention, and energy conservation in the built environment.

The codes, standards, and solutions developed by the International Code Council are used to ensure safe, affordable, resilient, and sustainable communities and buildings worldwide. The Code Council’s comments regarding the Department of Homeland Security’s (DHS) Federal Emergency Management Agency’s (FEMA) most recent “Request for Information on the National Flood Insurance Program’s Community Rating System Redesign Effort” are captured below and build upon earlier comments ICC submitted in October 2021 and January 2022 responsive to Dockets FEMA-2021-0021 and FEMA-2021-0024-0001, respectively.

For many years, FEMA has led efforts to advance the recognition of current building codes as a pillar of resilience. However, since ICC responded to prior RFIs related to the NFIP, the current Administration entrusted FEMA—through its chair of the Mitigation Framework Leadership Group (MitFLG)—to helm the National Initiative to Advance Building Codes (NIABC) and coordinate across the federal interagency regarding how departments and agencies use building codes and provide assistance to state, local, tribal, and territorial governments in a more consistent manner, ultimately “enabling [them] to be more resilient to hurricanes, flooding, wildfires, and other extreme weather events” and “sav[ing] lives, reduc[ing] property damage, and lower[ing] utility bills.”¹

¹ The White House, [FACT SHEET: Biden-Harris Administration Launches Initiative to Modernize Building Codes, Improve Climate Resilience, and Reduce Energy Costs](#) (June 2022).

I. Modern Building Codes Promote Flood Resilience

Modern model building codes are among the most effective and systemic measures to reduce the risk to buildings and their occupants from natural and manmade hazards, including flood risk. In its 2020 report, *Building Codes Save: A Nationwide Study of Loss Prevention*, FEMA found that adopting up-to-date building codes' flood mitigation provisions preserved 786,000 structures and saved \$10 billion dollars. These benefits could have been doubled if all post-2000 construction had adhered to the I-Codes.² A 2019 FEMA-funded study by the congressionally-established National Institute of Building Sciences (NIBS) found that up-to-date model building codes save \$6 dollars for every \$1 dollar invested through flood mitigation benefits.³ These benefits represent avoided casualties, property damage, business interruptions, first responder expenses, and insurance costs, and are enjoyed by all building stakeholders – from developers, titleholders, and lenders, to tenants and communities.

Strong code enforcement—which includes adequate staffing, personnel certification that demonstrates an understanding of the codes being enforced, and continuing education on code updates, improvements in building science, and best practices—ensures codes' theoretical public safety and resilience benefits are realized in the field. These benefits have been quantified in several instances. For example, strong code enforcement can help to reduce losses from catastrophic weather by 15 to 25 percent.⁴

Importantly, codes provide these benefits without appreciable implications for housing affordability—in fact, no peer-reviewed research has found otherwise. For example, according to the Association of State Floodplain Managers, the insurance savings from meeting current codes' flood mitigation requirements can reduce homeowners' net monthly mortgage and flood insurance costs by at least 5 percent.⁵ The principal investigator for the NIBS study found that improvements to model building codes' resilience over the nearly 30-year period studied only increased a home's purchase price by around a half a percentage point in an area affected by riverine flood.⁶

In recognition of their contributions to community resilience, FEMA has called adopting current building codes “the single most effective thing we can do.”⁷

II. Responses to Questions in the RFI

(1) Should FEMA provide each community with a report highlighting potential CRS program credits (often referred to as “points/credits”) that the community could earn to mitigate risk and reduce insurance premiums, explaining strategies on how to receive more points, and flagging NFIP minimum floodplain management standards compliance issues? Why or why not?

² U.S. Department of Homeland Security (DHS)/Federal Emergency Management Agency (FEMA), [Protecting Communities and Saving Money: The Case for Adopting Building Codes](#) (Nov. 2020).

³ National Institute of Building Science (NIBS), [Natural Hazard Mitigation Saves](#) (Dec. 2019).

⁴ Czajkowski, J. et. al., [Demonstrating the Intensive Benefit to the Local Implementation of a Statewide Building Code](#), Risk Management and Insurance Review (2017).

⁵ Association of State Floodplain Managers' (ASFPM) [Comments in Response to FR-6187-N-01](#), White House Council on Eliminating Barriers to Affordable Housing Request for Information ([Docket HUD-2019-0092](#)).

⁶ Porter, K., [Resilience-related building-code changes don't affect affordability](#), SPA Risk LLC Working Paper Series 2019-01 (2019).

⁷ FEMA, [Protecting Communities and Saving Money: The Case for Adopting Building Codes](#) (Nov. 2020).

While there would be value in each NFIP-participating community receiving a report highlighting potential CRS program credits, just over 1,700 communities⁸ (7.5%) receive any benefits from the CRS program of roughly 22,500 communities⁹ that participate in the NFIP.

The Coordinators Manual and 2021 addendum encompass more than 700 pages of complex prerequisites and point allocations. Pursuant to these requirements, only two communities have attained Class 1 and only 26 communities have attained Class 4 or better.¹⁰ The BCEGS requirements through CRS apply to just 1.9% of NFIP participating communities.

Although the CRS Coordinator's Manual¹¹ and its 2021 addendum¹² do credit building code adoption, enforcement, and several relevant flood resistant provisions in building codes, the provisions are neither clearly identified as tied to current model code requirements nor attached to scoring sufficient to incentivize hazard resistant code adoption and implementation.

The manual awards 50 points for the adoption and enforcement, regardless of edition, of the International Building Code® (IBC®), International Residential Code® (IRC®), International Plumbing Code® (IPC®), International Mechanical Code® (IMC®), International Fuel Gas Code® (IFGC®), and International Private Sewage Disposal Code® (IPSDC®). The manual also awards up to 50 points based on the community's Building Code Effectiveness Grading Schedule (BCEGS) score. A community must have a residential/commercial BCEGS score of 5/5 or better to achieve CRS Class 6 and a score of 4/4 or better to achieve Class 4.

The manual then, in several separate sections, credits the adoption and enforcement of individual I-Code provisions. For example, the manual credits the IBC® and IRC®'s requirement of one foot of freeboard with 100 points and the 2021 addendum makes this a requirement to achieve CRS Class 8. In another section, the manual provides 35 points where communities ensure fill is compacted and protected from erosion and scour, consistent with IRC® and IBC® requirements. Another section provides 10 points for enforcing the IBC® and IRC®'s positive drainage provisions. And so on.

The CRS program's measure of success should – at least in part – be tied to uptake. Considering the above numbers, uptake could be improved. To do so, the Code Council recommends FEMA make compliance more straight forward through packaging of interconnected measures and by coordinating CRS's incentivization with Agency priorities, including FEMA's strategy to support, agency-wide, the adoption and effective implementation of hazard-resistant building codes.

To the former point, the Code Council encourages FEMA to package provisions within the CRS that incentivize the adoption and effective implementation of flood-resistant building codes. Doing so would better demonstrate to adopting communities the CRS benefits of their doing so. Without this consolidation, communities are forced to search within the more 700 pages the Coordinators Manual and 2021 addendum contain to appreciate the benefits their adopted codes provide.

⁸ FEMA, *Community Rating System, CRS Participating Communities* (Oct. 2023).

⁹ FEMA, *Community Status Book* (accessed Sept. 2024).

¹⁰ FEMA, *Community Rating System, CRS Participating Communities* (Oct. 2023).

¹¹ FEMA, *National Flood Insurance Program Community Rating System Coordinator's Manual* (2017).

¹² FEMA, *2021 Addendum to the Coordinator's Manual, 2017 Edition* (2021).

(2) Should FEMA auto enroll all NFIP participating communities into the CRS program to give the community CRS credit for activities that they already undertake that exceed NFIP minimum floodplain management standards (e.g., community has an open space preservation program to reduce flooding)? Auto enrollment means all communities would automatically participate in CRS by virtue of participating in the NFIP.

Absent additional resources for NFIP-participating communities to work toward achieving improved CRS compliance, the Code Council believes that automatic enrollment in CRS of all NFIP-participating communities would likely have minimal impact on bolstering community and national resilience.

Aligned with prior comments, the Code Council recommends that FEMA provide a level of incentivization through CRS that is significant enough to encourage communities' adoption and effective implementation of flood-resistant codes. This is particularly important given only half of jurisdictions¹³ facing flood risk have adopted flood resistant building codes, while as noted above, the Agency is on record that "[a]dopting building codes is the single most effective thing we can do."¹⁴

The current scoring rubric provides a few hundred points for code activities, which is alone insufficient to achieve any CRS benefits. As noted above, even where code-related measures are prerequisites to CRS Classes, the points required to obtain those classes means that in practice these prerequisites apply to very few communities (less than 2% of NFIP participants for BCEGS). As drafted, CRS does not sufficiently incentivize code activities.

The Code Council encourages FEMA to create incentives for code activities through CRS, consistent with these measures' documented and empirically supported mitigation value and FEMA's prioritization of these activities. As noted in our response to the Agency's requested feedback on stronger NFIP construction standards,¹⁵ increased incentivization of modern code adoption and implementation through CRS could serve as a means through which to ease the transition to stronger NFIP standards. This should be a consideration of future amendments to CRS, consistent with the Agency's prioritization of current editions of model codes and standards.

(3) Would there be any advantage if FEMA were to assess an escalating surcharge on NFIP policy premiums for NFIP participating communities that are not in compliance with the NFIP minimum floodplain management standards? This would be in addition to the NFIP Probation policy surcharge that is in 44 CFR 59.24(b).

The Code Council would note that FEMA's required minimum standards for all FEMA funded post disaster reconstruction through the Public Assistance (PA) program refer to the hazard resistant provisions of current editions of the IBC®, IRC®, and several additional I-Codes® and ICC standards.¹⁶

¹³ FEMA, [Nationwide Building Code Adoption Tracking](#).

¹⁴ FEMA, [Protecting Communities and Saving Money: The Case for Adopting Building Codes](#) (Nov. 2020).

¹⁵ Regulations.gov, [Request for Information on the National Flood Insurance Program's Floodplain Management Standards for Land Management and Use, and an Assessment of the Program's Impact on Threatened and Endangered Species and Their Habitats](#) (Docket FEMA-2021-0024) (Oct. 2021).

¹⁶ FEMA, [Consensus-Based Codes, Specifications and Standards for Public Assistance, FEMA Recovery Interim Policy FP- 104-009-11 Version 2.1](#) (Dec. 2019).

Under the Building Resilient Infrastructure and Communities (BRIC) program, applicant adoption and effective implementation of current codes are weighted aspects of the program’s technical criteria for mitigation project evaluation. The Agency limits BRIC funding for code adoptions to those that update communities to hazard resistant codes and requires BRIC funded infrastructure adhere to current codes.¹⁷ The *Bipartisan Budget Act of 2018 (BBA18)* permitted FEMA to increase the federal share of post-disaster public assistance based on similar code adoption and implementation considerations.¹⁸

In August of 2019, the Mitigation Framework Leadership Group (MitFLG)—chaired by FEMA and made up of another 13 federal agencies and departments as well as state, tribal, and local officials— released the National Mitigation Investment Strategy (NMIS). The Strategy makes several recommendations concerning the use, enforcement, and adoption of building codes, including that “[u]p-to-date building codes and standard criteria should be required in federal and state grants and programs.”¹⁹

NFIP’s building standards are not aligned with PA, BRIC, the BBA18, or the NMIS. NFIP’s flood resilience standards are lower and not tied to the codes and standards these other programs and policies rely upon for both their mitigation measures and their development processes, which ensure continued advancement in mitigation considerations. The lack of a coherent approach creates confusion regarding the Agency’s views and expectations concerning resilient construction, with some areas defaulting to NFIP’s minimums and others more closely aligning with FEMA’s other programs. Instead of advancing a common understanding of what is necessary for adequate flood mitigation, the Agency’s approach promotes a patchwork, leading to market inefficiencies for materials and product manufacturers, which can increase costs. The variation in FEMA policy also misses an opportunity to standardize and improve training outcomes for code officials and the construction industry.

(4) What are the advantages and/or disadvantages of providing technical assistance to communities to support CRS participation? Would communities take advantage of technical assistance and if so, what type(s) of technical assistance would be most helpful? Examples of suggested technical assistance include assisting communities with the preparation of required CRS documents, CRS project management, CRS program support, and preparation of repetitive loss analysis.

In many states and more local units of government, code officials and floodplain managers are one and the same. The Association of State Floodplain Managers has found that up to a third of floodplain managers are code officials,²⁰ while several states, including Massachusetts, Connecticut, New Hampshire, and Rhode Island, designate building officials as responsible for overseeing floodplain management.

In many parts of the country, code officials, including floodplain managers, are understaffed and under resourced. According to ISO/Verisk, which evaluates the effectiveness of building code implementation in close to 28,000 communities across the U.S., communities with ratings in the top quarter are investing three times more per capita in their building departments than the national average.

¹⁷ DHS/FEMA, [Fiscal Year 2021 Building Resilient Infrastructure and Communities, Notice of Funding Opportunity DHS-21-MT-047-00-99](#) (2021).

¹⁸ *Bipartisan Budget Act of 2018* (Pub. L. 115-123, Sec. 20606) required FEMA to, by February 2019, issue guidance increasing the federal share of post-disaster public assistance based on state-adopted mitigation measures. To date, FEMA has yet to issue this guidance.

¹⁹ DHS/Mitigation Framework Leadership Group (MitFLG), [National Mitigation Investment Strategy](#) (Aug. 2019).

²⁰ ASFP, [Floodplain Management 2016: Local Programs](#) (Dec. 2016).

Communities with ratings in the bottom eighth, have allocated a quarter of the national average investment per capita in their building departments and a sixth of what the top quarter of communities are investing. Top departments are higher performing because they have appropriate staffing and their staff are well trained and certified to their core disciplines.

Strong code enforcement—which includes adequate staffing, personnel certification that demonstrates an understanding of the codes being enforced, and continuing education on code updates, improvements in building science, and best practices—ensures codes’ theoretical public safety and resilience benefits are realized in the field. These benefits have been quantified in several instances. For example, strong code enforcement can help to reduce losses from catastrophic weather by 15 to 25 percent.²¹

For these reasons, to better assist communities in mitigating flood loss, FEMA should consider significantly increasing its technical assistance, as well as grantmaking to support staffing and training for floodplain managers and code officials in CRS participating communities. The Building Code Plus Up effort included in the Fiscal Year 2023 BRIC Notice of Funding Opportunity (NOFO) is a meaningful investment in these activities, but sustained grant funding in BRIC or technical assistance would demonstrate the Agency’s long term commitment in this area.

(5) FEMA currently offers premium discounts for many CRS activities through the NFIP's current pricing approach. In CRS participating communities, this may lead to policyholders receiving “double” discounts for the same CRS activities (e.g., elevation of individual structure above the NFIP's minimum elevation requirement resulting in a structure level discount through the NFIP's current pricing approach and a CRS credit for a community-wide higher structure elevation regulation).

(a) If FEMA were to provide NFIP premium discounts to individual policyholders for CRS activities, through the NFIP's current pricing approach, should FEMA offer duplicate CRS discounts for the same activities that are already reflected in individual premiums? Why or why not?

(b) Assuming no to (a), would communities be incentivized to adopt measures in excess of FEMA's minimum floodplain management standards for community-wide activities that reduce future flood risk (e.g., stormwater management regulations or enhanced future land use planning) if FEMA were to only offer CRS discounts for those community-wide activities that reduce future flood risk?

Regarding part (a), the Code Council recognizes that both individual- and community-level action is necessary in order for us to make any meaningful reduction in known and un- and under-mitigated flood risk nationally. As noted below in response to question (11), the Agency has already completed its analysis of the flood-resistant provisions of the 2024 International Codes®, which could serve as the benchmark for measuring meaningful activities undertaken by individual NFIP policyholders and determining additional individual-level premium discounts.

Responding to part (b), ICC notes that in the Fiscal Year 2023 NOFO for BRIC, FEMA provided scoring incentives for local governments that proactively adopted and enforced either of the two most recent editions of modern, hazard-resistant building codes. This incentivization resulted in another record number of grant applications received for the program. The Code Council would anticipate that were CRS discount incentives enacted for communities which exceed the NFIP’s minimum floodplain

²¹ Czajkowski, J. et. al., [Demonstrating the Intensive Benefit to the Local Implementation of a Statewide Building Code](#), Risk Management and Insurance Review (2017).

management standards for community-wide activities that reduce future flood risk, there would be demonstrable growth in the number of CRS participating communities.

(6) Are there additional community-level activities that are not currently included in the CRS program that measurably reduce flood risk to property? Please describe and, if available, provide national-level data that demonstrate how the activities measurably reduce current and/or future flood risk reduction to property.

From ICC's perspective, consistent code adoption and enforcement activities at the community level are vital toward mitigating hazard risk to property. As noted above, this has been empirically demonstrated in recent comprehensive research of both FEMA and NIBS.^{22,23}

(8) Besides individual flood insurance financial premium discounts, what other benefits would best incentivize communities to maintain participation in or to join the CRS program?

As the NIABC continues its efforts across the federal government and the Agency looks to better align requirements for state, local, tribal, and territorial governments across all of its programs, the Code Council encourages FEMA to leverage any statutory and policy flexibility to further incentivize CRS participation (e.g. federal cost-share adjustments under the Public Assistance program, pursuant to BBA18 Sec. 20606, for CRS participating communities).

(9) The current CRS program credits 19 activities and 90+ elements recognized by the CRS program and identified in the CRS Coordinator's Manual along with the credit points assigned to each activity. An activity is a floodplain management activity for which CRS credit has been established (e.g., mapping and regulations—higher regulatory standards). Elements are discrete parts of an activity that if implemented result in CRS credit points under that activity (e.g., community-wide prohibition of outdoor storage in the SFHA, which is an element of the activity of higher regulatory standards). What are some advantages and/or disadvantages of reducing the number of activities and elements, and streamlining CRS reporting requirements?

As noted above responding to questions (1) and (2), the Code Council believes that the current CRS scoring rubric is too complicated for resource-limited local officials tasked with NFIP and CRS compliance, as is also noted in the above response to question (4). Streamlining the various elements and reporting requirements would likely result in greater CRS uptake rather than automatically enrolling all NFIP participating communities into CRS as it is currently designed.

(10) What are the advantages and/or disadvantages of communities working with other communities to implement CRS under a regional approach? For example, a regional approach may include a regional watershed or planning commission that implements a CRS program for multiple communities or a shared CRS coordinator position among several communities.

²² FEMA, [Building Codes Save: A Nationwide Study. Losses Avoided as a Result of Adopting Hazard-Resistant Building Codes](#) (Nov. 2020).

²³ National Institute of Building Science (NIBS), [Natural Hazard Mitigation Saves](#) (Dec. 2019).

In 2022, the Code Council and the Ohio Department of Commerce prepared a report for the state's Board of Building Standards that identified a regional approach to code adoption and enforcement as an effective approach to combatting the effects of a rapidly aging workforce and resultant staff shortages in the building safety industry as these officials retire from service.²⁴ The Code Council recognizes the importance of local governance and administration and the efficiencies that may be gained from implementing CRS from a more regional role. That said, ICC staff often hear from local officials that such sharing agreements are difficult to execute due to the complexities of politics, costs, or legal concerns. In some instances, it may also require statutory or policy changes to ease or eliminate the burdens for such sharing or mutual aid agreements. However, in the absence of an influx of additional and younger code officials or floodplain managers, a multi-jurisdictional approach may be one of the more viable solutions to the workforce challenge of administering CRS.

(11) What else should FEMA consider for potential improvements to the CRS program and how can FEMA better engage with stakeholders to effectively implement the CRS program?

Not necessarily specific to CRS, but the NFIP's minimum building standards haven't been substantively updated since the 1970s, despite Agency engagement to inform such an effort. Per FEMA, NFIP's minimum building standards lag significantly behind the life safety and mitigation benefits contained in base building codes.²⁵ NFIP minimum standards should be updated to better align with modern codes and standards that offer greater protection for residents and communities.

The mitigation benefits the I-Codes provide over NFIP are well documented and empirically supported. NIBS found that the I-Codes' freeboard requirements provide at least \$6 dollars in flood mitigation savings for every \$1 dollar invested as compared to NFIP minimums.²⁶ FEMA's Hurricane Harvey after action report determined that the I-Codes' freeboard requirements reduced average claim payments by 90%.²⁷ And FEMA's *Building Codes Save* study of 2020 found that the I-Codes' freeboard requirements could avoid nearly \$177 billion in flood losses by 2060.²⁸

Numerous additional provisions within the I-Codes provide flood mitigation benefits over NFIP and should also be considered. For instance, according to a comparison FEMA conducted in May of 2021, there are roughly thirty instances where the I-Codes and their referenced standards exceed or offer greater specificity than NFIP's minimum requirements.²⁹ Within the 2024 IBC® edition alone, FEMA has noted improvements concerning dry floodproofing, engineered openings, and secondary overflow drains.³⁰

²⁴ International Code Council (ICC) and Ohio Department of Commerce, [Ohio Board of Building Standards Certification Study](#) (June 2023).

²⁵ FEMA, [Building Code Requirements That Exceed or Are More Specific Than the National Flood Insurance Program](#), FEMA Fact Sheet (May 2021).

²⁶ NIBS, [Natural Hazard Mitigation Saves](#) (Dec. 2019).

²⁷ FEMA, [Hurricane Harvey in Texas: Building Performance Observations, Recommendations, and Technical Guidance](#), Mitigation Assessment Team Report (Feb. 2019).

²⁸ FEMA, [Building Codes Save: A Nationwide Study. Losses Avoided as a Result of Adopting Hazard-Resistant Building Codes](#) (Nov. 2020).

²⁹ FEMA, [Building Code Requirements That Exceed or Are More Specific Than the National Flood Insurance Program](#), FEMA Fact Sheet (May 2021)

³⁰ FEMA, [Flood-Resistant Provisions of the 2024 International Codes®](#) (July 2024).

The CRS program already credits several I-Code® flood mitigation measures including, for example, where communities ensure fill is compacted and protected from erosion and scour, consistent with the IRC® and IBC® requirements, and where communities enforce the IBC® and IRC®'s positive drainage provisions.³¹

FEMA has analyzed the impacts of including building codes in NFIP previously and found that doing so would effectively reduce flood damage, increase property values, lower NFIP premiums, and make NFIP more actuarially sound.³² The National Mitigation Investment Strategy (NMIS) notes that NFIP's building standards "predate modern up-to-date building codes and standards," and states that federal programs should require "up-to-date building codes and standards."³³

Thank you for the opportunity to provide comments. If you have any questions concerning the Code Council's recommendations, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Aaron Davis', with a stylized flourish at the end.

Aaron Davis
Vice President, Federal Relations

³¹ FEMA, [National Flood Insurance Program Community Rating System Coordinator's Manual](#) (2017).

³² DHS/FEMA, [Including Building Codes in the National Flood Insurance Program](#), Fiscal Year 2013 Report to Congress: Impact Study for Biggert-Waters Flood Insurance Reform Act of 2012 (Jan. 2013).

³³ DHS/Mitigation Framework Leadership Group (MitFLG), [National Mitigation Investment Strategy](#) (Aug. 2019).