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Federal Emergency Management Agency
Regulatory Affairs Division, Office of the Chief Council
500 C Street, SW
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Via regulations.gov

Re: Comments of the International Code Council on FEMA’s 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 No. FEMA-2021-0024-0001)

The International Code Council (ICC) is a nonprofit organization, with more than 64,000 members, that is dedicated to helping communities and the building industry provide safe, resilient, and sustainable construction through the development and use of model codes (I-Codes) and standards used in design, construction, and compliance processes. Most U.S. states and communities, federal agencies, and many global markets choose the I-Codes to set the standards for regulating construction, building safety, and major renovations, plumbing and sanitation, fire prevention, and energy conservation in the built environment. The Code Council appreciates the opportunity to submit the following comments on the Federal Emergency Management Agency’s (FEMA) Request for Information (RFI) on the National Flood Insurance Program’s (NFIP) Floodplain Management Standards for Land Management and Use, and an Assessment of the Program’s Impact on Threatened and Endangered Species and Their Habitats Programs, Regulations, and Policies (“FEMA’s RFI”) in the above captioned matter.

NFIP has two interrelated policy purposes: (1) provide greater access to flood insurance by transferring some financial risk from property owners to the federal government and (2) to reduce the nation’s flood risk through floodplain management standards.¹ These twin policy purposes are most important for families on or below the poverty line, the latter particularly so because underserved communities face disproportionate flood risk.

FEMA’s RFI focuses on whether the program’s current structure is sufficiently furthering the program’s mitigation purpose. The Code Council believes that, by modernizing NFIP’s minimum building requirements, FEMA can ensure the program delivers better outcomes for underserved communities.

I. Underserved Communities Face Disproportionate Hazard Risk

Underserved communities, including, low- and moderate-income (LMI) families, are hardest hit by disasters because they are more likely to live in homes built in hazard-prone areas or homes with lower quality construction.² Consequently, they are at greater risk of damage to or destruction of their homes

¹ Congressional Research Service, *Introduction to the National Flood Insurance Program* (Updated Nov. 2021).

² Substance Abuse Mental Health Services Administration, *Greater Impact: How Disasters Affect People of Low Socioeconomic Status*, Disaster Technical Assistance Center Supplemental Research Bulletin (July 2017).

and are more likely to be made homeless by a disaster.³ To illustrate, a post-Hurricane Harvey analysis found that in Houston, LMI families were more likely to live in homes built in flood-prone areas or areas not protected from flood risk and, consequently, suffered more damage than residents in higher-income neighborhoods.⁴

LMI families also have the most at stake when it comes to protecting their property from flood risks. Recent Bankrate studies have reported that about than 4 in 10 of those surveyed could cover an unanticipated \$1,000 expense with savings.⁵ That’s about one-third of the average FEMA-verified (not actual) losses post-Hurricane Harvey for LMI renters and one-seventh to one-ninth of the FEMA-verified losses for LMI owners.⁶ Following Hurricanes Harvey, Irma and Maria, serious delinquency rates on home mortgages tripled in Houston and Cape Coral, Florida, and quadrupled in San Juan, Puerto Rico.⁷

The consequences of flooding for people on or below the poverty line demonstrate why FEMA must ensure the NFIP program sufficiently advances flood mitigation measures.

II. 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. These benefits could have been doubled if all post-2000 construction had adhered to the I-Codes.⁸ 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 for every \$1 invested through flood mitigation benefits.⁹ 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.¹⁰

³ *Id.*

⁴ Dickerson, M., *Post-Harvey, Houston needs safe, affordable housing [Opinion]*, Houston Chronicle (Aug. 22, 2018).

⁵ Bankrate Financial Security Index Survey (Jan. 2022).

⁶ Rosales, C., *To achieve an equitable recovery, we propose a fairer way to determine needs of Hurricane Harvey survivors*, Texas Housers (Feb. 21, 2018).

⁷ Betten, D., et. al., *2019 Natural Hazard Report*, CoreLogic (Jan. 2020).

⁸ Federal Emergency Management Agency, *Protecting Communities and Saving Money: The Case for Adopting Building Codes* (Nov. 2020).

⁹ National Institute of Building Science, *Natural Hazard Mitigation Saves* (Dec. 2019).

¹⁰ Czajkowski, J. et. al., *Demonstrating the Intensive Benefit to the Local Implementation of a Statewide Building Code*, Risk Management and Insurance Review (2017).

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.¹¹ 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.¹²

In recognition of their contributions to community resilience, FEMA has called adopting current building codes “the single most effective thing we can do.”¹³

III. Responses to FEMA’s RFI

As stated above, underserved communities, as defined in Executive Order 13985, are more likely to be hardest hit by flood events because their homes are more likely to be built in hazard-prone areas or with lower quality construction and their residents lack the resources necessary for recovery, including relocation and repair. FEMA, backed by extensive research, views the adoption and effective implementation of modern codes as the most effective measure to mitigate communities against hazards, including flood risk. The below responses to FEMA’s RFI identify ways the Agency could improve NFIP to more effectively align with modern building codes, therein extending the benefits they provide to underserved communities that face disproportionate flood risk.

(1) FEMA has addressed risk to existing or non-conforming construction (buildings not constructed to current minimum floodplain management standards) in the regulations through the “substantial improvement/substantial damage” requirements. These requirements have largely been tied to the definitions of “substantial improvement” and “substantial damage.” Is “substantial improvement/substantial damage” the best way to address risk for non-conforming buildings? If so, should FEMA consider the use of cumulative “substantial improvement” and/or “substantial damage” requirements over a given time period as a requirement? Should “substantial improvement” and/or “substantial damage” use an assessment cost value or a replacement cost value, or are there other valuation methods that may be more appropriate? Should the regulations provide more detail on how the “substantial improvement” and/or “substantial damage” determinations should be made?

Substantial improvement projects can come in at or below 49% of the building’s market value, which does not trigger certain requirements.

If FEMA seeks to amend the substantial improvement or substantial damage requirements to institute additional tracking requirements (e.g., capturing cumulative substantial improvements or substantial damage to NFIP-insured buildings), the Agency should be prepared to offer significant assistance to NFIP

¹¹ Association of State Floodplain Managers’ Comments in Response to FR-6187-N-01, *White House Council on Eliminating Barriers to Affordable Housing Request for Information* (Docket HUD-2019-0092).

¹² Porter, K., *Resilience-related building-code changes don’t affect affordability*, SPA Risk LLC Working Paper Series 2019-01 (2019).

¹³ Federal Emergency Management Agency, *Protecting Communities and Saving Money: The Case for Adopting Building Codes* (Nov. 2020).

communities. Were new tracking requirements put forward, code officials and floodplain managers¹⁴ in these communities would bear the added responsibility for tracking cumulative substantial improvements and/or substantial damage at the parcel level. For communities with scaled programs, resources, and technology, implementation could be manageable. But for many underserved communities with under resourced departments that face greater flood risk and repetitive losses, implementing a cumulative impact proposal may be unrealistic or simply unachievable. If this requirement is implemented, additional federal grant resources and funding should be targeted to code and floodplain officials for technology, training, education, certification, and additional staffing to successfully manage the additional requirements.

(2) Should FEMA update flood elevation requirements for SFHAs by setting higher freeboard levels? If so, what should FEMA consider for the higher elevation levels for freeboard? What data exists to support higher elevation levels for freeboard or methods that provide a more consistent level of protection? Will freeboard elevation generally raise the market value of properties in SFHAs and if so how would the increase in market value compare to the cost of elevation? Are there other technology advancements or building standards in design and construction that should be considered beyond freeboard levels? If so, do they address other floodplain management criteria (e.g., reasonably safe from flooding; adequately anchored; methods and practices that minimize or are resistant to flood damage; water load values; wind load values; substantially impermeable)?

NFIP's minimum building standards haven't been substantively updated since the 1970s. Per FEMA, they lag significantly behind the life safety and mitigation benefits contained in base building codes.¹⁵ 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. For instance, NIBS found that the I-Codes' freeboard requirements provide at least \$6 in flood mitigation savings for every \$1 invested as compared to NFIP minimums.¹⁶ FEMA's Hurricane Harvey after action report determined that the I-Codes' freeboard requirements reduced average claim payments by 90%.¹⁷ 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 2060.¹⁸

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.¹⁹ Within the 2021 International Building Code

¹⁴ In many communities code officials and floodplain managers are one and the same.

¹⁵ Federal Emergency Management Agency, *Building Code Requirements That Exceed or Are More Specific Than the National Flood Insurance Program*, FEMA Fact Sheet (May 2021).

¹⁶ National Institute of Building Science, *Natural Hazard Mitigation Saves* (Dec. 2019).

¹⁷ Federal Emergency Management Agency, *Hurricane Harvey in Texas: Building Performance Observations, Recommendations, and Technical Guidance*, Mitigation Assessment Team Report (Feb. 2019).

¹⁸ Federal Emergency Management Agency, *Building Codes Save: A Nationwide Study. Losses Avoided as a Result of Adopting Hazard-Resistant Building Codes* (Nov. 2020).

¹⁹ Federal Emergency Management Agency, *Building Code Requirements That Exceed or Are More Specific Than the National Flood Insurance Program*, FEMA Fact Sheet (May 2021).

(IBC) edition alone, FEMA has noted improvements concerning dry floodproofing, engineered openings, and secondary overflow drains. FEMA’s Community Rating System (CRS) program 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 International Residential Code (IRC) and IBC requirements, and where communities enforce the IBC and IRC’s positive drainage provisions.²⁰

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.²¹ 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.”²²

(3) FEMA has not developed higher minimum floodplain management standards for structures and facilities that perform critical actions as defined in 44 CFR 9.4. These structures and facilities must currently comply with the same minimum requirements as non-critical structures and facilities except for structures and facilities that are covered by Executive Order (E.O.) 11988, Floodplain Management. Should FEMA develop higher standards for these structures and facilities? If so, why? Should FEMA consider differences between certain structures and facilities, such as use, occupancy, operational size, or public and private operators in developing higher standards? Should FEMA consider differences such as use, occupancy, operational size, or public and private operators in developing higher standards for structures and facilities performing critical actions?

Codes and standards requiring greater flood resilience for essential structures already exist, and per the National Technology Transfer and Advancement Act (NTTAA) and Office of Management and Budget (OMB) Circular A-119, FEMA should consider them in the first instance.²³

For flood resistant design—including establishing elevations of lowest floors, flood-resistant materials, equipment and floodproofing—the IBC through its integration of American Society of Civil Engineers Flood Resistant Design and Construction Standard (ASCE 24-14) requires essential (or Risk Category IV) facilities²⁴ lowest floor elevation be the higher of base flood elevation plus freeboard specified in ASCE 24-14, the design flood elevation, or the 500-year flood elevation. ASCE 24-14 includes additional delineations by risk category.

(5) In the past 30 years, 1 of every 6 dollars paid out in NFIP claims has gone to a building with a history of multiple floods. What steps should FEMA take to reduce the disproportionate financial impact the multiple loss properties have on the NFIP? Should FEMA consider regulatory changes for properties that

²⁰ Federal Emergency Management Agency, *National Flood Insurance Program Community Rating System Coordinator’s Manual* (2017).

²¹ U.S. Department of Homeland Security, *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).

²² U.S. Department of Homeland Security Mitigation Framework Leadership Group, *National Mitigation Investment Strategy* (Aug. 2019).

²³ See response to question 14 for additional information on federal standards work consistent with the NTTAA and OMB Circular A-119.

²⁴ E.g., hospitals, fire and police stations, emergency response facilities, disaster shelters, power stations, and water supply facilities.

have repetitive losses? If so, what should the minimum NFIP floodplain management standards be for those properties? Should these properties be targeted for managed retreat? How should the NFIP consider issues of equity when deciding how to address these properties?

All forms of mitigation produce benefits, including the effective implementation and enforcement of modern building codes. Properties experiencing repetitive losses should be rebuilt consistent with modern standards that mitigate flood risk. The above response to question 2 addresses improvements to NFIP's minimum standards and quantifies the mitigation benefits of doing so, which would minimize properties' risk of repetitive losses.

(9) Local floodplain managers are often tasked with enforcement of NFIP minimum floodplain management standards. In what ways can FEMA strengthen the NFIP participation and increase enforcement of NFIP minimum floodplain management standards to build community resilience? How can FEMA better assist communities to mitigate flood loss and reduce risk? In what ways could FEMA better support local floodplain managers to effectively enforce the NFIP minimum floodplain management standards?

In many states, 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,²⁵ 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. 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.²⁶

For these reasons, to better assist communities in mitigating flood loss, FEMA should significantly increase its grantmaking to support staffing and training for floodplain managers and code officials.

²⁵ Association of Floodplain Managers, *Floodplain Management 2016: Local Programs* (Dec. 2016).

²⁶ Czajkowski, J. et. al., *Demonstrating the Intensive Benefit to the Local Implementation of a Statewide Building Code*, Risk Management and Insurance Review (2017).

(12) The United States is experiencing increased flooding and flood risk from climate change. Climate change may exacerbate the risk of flooding to homeowners. Should FEMA base any NFIP minimum floodplain management standard changes on future risk and specifically on projections of climate change and associated impacts, such as sea level rise? What equity considerations should be factored into such decisions if climate change disproportionately harms underserved and vulnerable areas? What other considerations should be factored into an analysis involving climate change? Should the NFIP better distinguish NFIP minimum floodplain management standards between riverine and coastal communities? Should the NFIP minimum floodplain management standards incorporate pluvial (surface/urban) flooding concerns? Are there specific measures and standards that should be taken to ensure structures can withstand the greater intensity, duration, frequency and geographic distribution of flooding events? If so, what are they and how can those measures and standards ensure structures and communities can readily adapt and increase resilience to the impacts of climate change?

The risks homes will face over their life cycle are different than those faced in the past—particularly given the impacts of climate change. Maintaining the future viability of homes, the communities they support, and the NFIP requires consideration of changing risks. The Code Council along with similar code development organizations in Canada, Australia, and New Zealand (collectively the Global Resiliency Dialogue²⁷) developed the Findings on Changing Risk and Building Codes, recognizing the importance of addressing this issue.²⁸

The Global Resiliency Dialogue members are currently working to develop approaches for addressing evolving risk in codes and standards, and domestically the Code Council is working with NOAA, NIST, ASCE and others to develop methods for linking climate science and resilience measures. While a standardized methodology for incorporating future climate risk in codes and standards has not yet been reached, proxies for addressing those risks can be developed.²⁹ More frequent updates to the NFIP minimum requirements would allow for the capture of the latest findings and methodologies to address changing risks.

To the extent practical, minimum standards should be tailored to the risks communities face and the most effective solutions. Flooding within coastal and riverine communities and pluvial flooding all impact homeowners, but how flooding develops and potential mitigation measures vary. At a minimum, as discussed in the above response to questions 2 and 3, FEMA should update its base requirements to assure that structures are built to modern criteria aimed at withstanding the intensity, duration, frequency and geographic distribution of flooding events.

(13) The current NFIP minimum floodplain management standards can be found at 44 CFR part 60 subpart A—Requirements for Floodplain Management Regulations. As part of this Request for Information seeking input on new and even transformative reforms to the NFIP minimum floodplain management standards, FEMA also is exploring potential revisions to current regulatory provisions that are unnecessarily complicated, create unintended inequities or could be streamlined. Are there current regulatory provisions that create duplication, overlap, complexity, or inconsistent requirements or

²⁷ International Code Council, *Global Resiliency Dialogue*, www.globalresiliency.org.

²⁸ Global Resiliency Dialogue, *Findings on Changing Risk and Building Codes* (Oct. 2019).

²⁹ The Federal Flood Risk Management Standard uses a proxy approach in its freeboard requirements.

unintended inequities with other FEMA or other Federal programs? Are there current regulatory provisions that present recurring difficulties for local and State officials implementing NFIP minimum floodplain management standards and if so, what improvements should be made?

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.³⁰ 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.³¹ The Bipartisan Budget Act of 2018 permitted FEMA to increase the federal share of post-disaster public assistance based on similar code adoption and implementation considerations.³²

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.”³³

NFIP's building standards are not aligned with PA, BRIC, the BBA, 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.

(14) Are there technological advances, building standards, or standards of practice that could help FEMA to modify, streamline, or improve existing NFIP minimum floodplain management standards? If so, what are they and how can FEMA leverage those technologies and standards to achieve the agency's statutory and regulatory objectives?

³⁰ Federal Emergency Management Agency, *Consensus-Based Codes, Specifications and Standards for Public Assistance*, FEMA Recovery Interim Policy FP- 104-009-11 Version 2.1 (Dec. 2019).

³¹ U.S. Department of Homeland Security, *Fiscal Year 2021 Building Resilient Infrastructure and Communities*, Notice of Funding Opportunity DHS-21-MT-047-00-99 (2021).

³² The Bipartisan Budget Act of 2018 (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 our knowledge that guidance is still forthcoming. We strongly encourage the Agency to issue it in short order.

³³ U.S. Department of Homeland Security Mitigation Framework Leadership Group, *National Mitigation Investment Strategy* (Aug. 2019).

The Code Council facilitates the development of the International Building Code (IBC) and International Residential Code (IRC) which govern all aspects of construction and major renovation. The IBC is adopted or in use in all 50 states and the IRC in 49. The federal government requires the IBC and IRC for federal defense³⁴ and non-defense³⁵ facilities.

The IBC, IRC, and the other I-Codes are national “voluntary consensus standards” under Office of Management and Budget (OMB) Circular A-119 and the National Technology Transfer and Advancement Act (NTTAA), meaning they are developed in an open forum—with a balance of interests represented and due process—that, ultimately, ensures a consensus outcome. All I-Codes are updated every three years.

The NTTAA, supplemented by OMB Circular A-119, directs federal agencies to use voluntary consensus standards wherever possible in their procurement and regulatory activities in lieu of expending public resources to develop government unique standards. FEMA has applied these principles repeatedly across its programs. For example, the Agency points to the IBC, IRC, and several other I-Codes and ICC standards within FEMA’s requirements for post-disaster reconstruction funded under the public assistance (PA) program.³⁶ FEMA’s BRIC program includes similar requirements for BRIC-funded construction and code adoption and makes mitigation projects more competitive for funding based on state and local government’s adoption and implementation of the IBC, IRC, and other I-Codes.³⁷ The Agency’s Community Rating System (CRS) program incentivizes several IBC, IRC, and other I-Codes’ flood resistance provisions.

As FEMA looks to “modify, streamline, or improve” NFIP’s minimum construction standards, the Code Council encourages FEMA to continue its practice of utilizing voluntary consensus standards, like the IBC and IRC. As stated in response to RFI questions 2 and 3, the I-Codes’ flood mitigation requirements far exceed NFIP’s minimums in numerous respects. That’s in part because, while NFIP’s regulations have remained static, the I-Codes are updated on a three-year cadence to keep pace with technology advances, lessons learned, and improvements in building science and best practices.

Utilizing the I-Codes would modernize NFIP’s standards and could allow them to remain current, increasing community resilience to the benefit of NFIP program participants. Failing to integrate the I-Codes or another dynamic standard risks a continuation of construction standards that are now nearly a half century out of date or establishment of a new standard that is rarely, if ever, updated in the future.

Improved integration with the I-Codes would also improve compliance with NFIP requirements by harmonizing federal, state, and local practices. As stated above, IBC and IRC are widely utilized and,

³⁴ U.S. Department of Defense, *Unified Facilities Criteria: DoD Building Code*, Policy 1-200, Whole Building Design Guide (Updated Oct. 2021).

³⁵ U.S. General Services Administration, *Facilities Standards for the Public Buildings Service*, P100 (Oct. 2021).

³⁶ Federal Emergency Management Agency, *Consensus-Based Codes, Specifications and Standards for Public Assistance*, FEMA Recovery Interim Policy FP- 104-009-11 Version 2.1 (Dec. 2019).

³⁷ U.S. Department of Homeland Security, *Fiscal Year 2021 Building Resilient Infrastructure and Communities*, Notice of Funding Opportunity DHS-21-MT-047-00-99 (2021).

according to FEMA, the I-Codes' flood mitigation measures are already required in at least 50 percent of the country.³⁸

(15) FEMA recognizes the vital role that State, local, Tribal, and territorial governments play in floodplain management and that they may have innovative solutions to complex floodplain management challenges. What successful mitigation policies, building design standards, building construction standards, T&E species protections, and/or other floodplain management approaches to mitigate flood loss and reduce risk have been taken by State, local, Tribal, and territorial governments? In what ways do the current NFIP minimum floodplain management standards present barriers or opportunities to the successful implementation of those approaches? What capabilities and capacity impacts should FEMA address as it considers changes to the NFIP minimum floodplain management standards and to strengthen NFIP protection of T&E species and their habitats?

As stated in response to question 14, the I-Codes and their flood resistant provisions³⁹ are widely adopted. The IBC and IRC are in use in 50 and 49 states, respectively, and according to FEMA data, at least 50% of communities have adopted the I-Codes' flood-resistant provisions.⁴⁰

NFIP's existing building standards present barriers in two ways. First, FEMA's continuance of NFIP's outdated building standards equates to an Agency representation that those standards satisfactorily address flood risk. As a consequence, communities that may have otherwise improved flood resilience may elect to remain with NFIP's standards. Second, the continuation of outdated NFIP standards creates a disconnect with modern building practices, risking regulatory confusion and market inefficiencies. Rather than promoting a more consistent approach to flood resilience, the existing structure perpetuates balkanization.

Were FEMA to update NFIP's minimum requirements, it should accompany any new requirements with a multiyear transition period to enable NFIP communities to update their regulations and provide new resources to train floodplain managers, code officials, and the construction industry. Doing so is particularly important given many states with significant flood risk that could be impacted by NFIP changes have historically had below average training expenditures per code department. During the transition, the Agency could incentivize modern code adoption and implementation through the CRS program to further ease the transition to stronger NFIP standards.

(18) How should FEMA consider integrating mitigation planning with other Federal, State, or local mitigation planning such as community planning, economic planning, coastal zone planning, and other types of planning activities to improve the overall effectiveness of mitigation planning and floodplain management activities? Are there planning best practices, processes, or data that could better inform planning decision-making and the development and implementation of floodplain management standards?

³⁸ Federal Emergency Management Agency, *Nationwide Building Code Adoption Tracking*, <https://www.fema.gov/emergency-managers/risk-management/building-science/bcat>.

³⁹ See Part II and the response to questions 3 and 4.

⁴⁰ Federal Emergency Management Agency, *Nationwide Building Code Adoption Tracking*, <https://www.fema.gov/emergency-managers/risk-management/building-science/bcat>.

We encourage FEMA to align its hazard mitigation planning requirements with its emphasis on the adoption and effective implementation of hazard resistant codes that mitigate flood risk. Mitigation plans are required for applicants to receive mitigation funding (including through BRIC and HMGP). Yet mitigation plans are not required to consider the adoption or implementation of building codes that mitigate flood risk. To align its mitigation plan requirements with its prioritization of building code activities, FEMA should update its state and local mitigation plan guidance to require that plans consider (1) whether adopted codes, as implemented, adequately address natural hazards, including flood risk; (2) whether updated or new codes should be adopted to address flood hazard risk, particularly in areas that, per FEMA, have not adopted hazard resistant codes, and (3) whether code implementation and enforcement should be enhanced to better address flood hazard risk (e.g. considering staffing based on permitting demand and training and certification of code officials).

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,

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