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U.S. DEPARTMENT OF HOUSING AND  
URBAN DEVELOPMENT

# CLIMATE ADAPTATION PLAN

SEPTEMBER 2021

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U.S. Department of  
Housing and Urban Development

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# Introduction

## Background

Climate change is a crisis impacting communities across the United States. From severe storms and flooding, to wildfires, drought, and extreme heat, Americans are already feeling the effects. As the Federal agency tasked with creating strong, sustainable, inclusive communities and quality affordable homes, HUD is on the front lines of the nation's efforts to increase resilience to climate impacts.

HUD has significant influence over how the nation's households and communities will respond to the climate crisis. In addition to public and assisted housing, HUD's FHA-insured portfolio consists of 7,627,918 single family insured loans, 11,213 multifamily insured loans (1,405,260 units), 3,825 residential healthcare facilities, and 88 hospitals with \$1.2 trillion, \$111 billion, \$33 billion, and \$6.3 billion respectively of mortgage balances (as of June 30, 2021).

Further, the Department invests billions of dollars every year in housing, infrastructure, and services in neighborhoods and cities across the U.S. through its ever-increasing role in disaster relief and recovery. This investment includes over \$89.8 billion appropriated since 1993 by Congress for Community Development Block Grant-Disaster Recovery (CDBG-DR) grants, \$15.9 billion of which is allocated for CDBG-Mitigation (CDBG-MIT) for States and local governments that experienced Presidentially-declared disasters in 2015 – 2018. HUD's disaster-related grants have driven innovation and elevated the national conversation on resilient recovery through Rebuild by Design and the National Disaster Resilience Competition.

The most recent National Climate Assessment from the U.S. Global Change Research Program (USGCRP)<sup>1</sup> underscores the necessity of HUD's climate change mitigation and adaptation work. It shows that climate change creates new risks and exacerbates existing vulnerabilities in communities across the U.S., presenting growing challenges to human health and safety, quality of life, and economic prosperity. Though these challenges are universal, our nation's low-income families and communities of color are disproportionately impacted by climate change due to historic disinvestment and a longstanding pattern of residential segregation. For low-income households and communities of color, climate change exacerbates existing vulnerabilities in their communities, such as aging infrastructure and the siting of toxic waste facilities.

Responding to this crisis is core to the Department's mission, which is why HUD recently established an internal Climate and Environmental Justice Council with representation at the Assistant Secretary level. HUD's Senior Advisor for Climate Change will lead the Council with support from the Office of Environment and Energy. The Climate and Environmental Justice Council will manage the implementation and monitoring of the climate priorities detailed in this plan. This Council is the main body responsible for the long-term integration of climate and environmental justice into HUD's programs and operations.

In recognition of this responsibility, the Climate and Environmental Justice Council will also be developing the next phase of this adaptation plan, which will incorporate mitigation and environmental justice. HUD plays an essential role in mitigating climate change by reducing greenhouse gas emissions, due to its

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<sup>1</sup> <https://nca2018.globalchange.gov/>

portfolio of approximately 4.5 million public and assisted housing units. Furthermore, because HUD's programs focus on improving the lives and environments of low- and moderate-income individuals, HUD must also be a leader in achieving environmental justice. In the coming months, HUD will build off the work in this plan and develop a strategy that incorporates both carbon reduction and environmental justice actions, together creating a comprehensive agency Climate Action Plan.

## Policy Statement

One of President Biden's first actions in office was Executive Order (EO) 14008, *Tackling the Climate Crisis at Home and Abroad*. It lays out a broad vision for how the Federal government can address climate change while creating economic opportunity. The Department supports the President's message that our nation has limited time to act to avoid the most catastrophic impacts of this crisis and seize the opportunity that tackling climate change presents. HUD will play a critical role in implementing this vision.

It is the policy of the Department to organize and deploy the full capacity of its offices to combat the climate crisis and implement a department-wide approach that reduces climate pollution; increases resilience to the impacts of climate change; protects public health; delivers environmental justice; and spurs well-paying union jobs and economic growth. The Department's policy is to do so in a way that delivers on the President's commitment to environmental justice and promoting racial equity, consistent with Executive Order 13985, which requires that HUD allocate resources in a manner that addresses the historic failure of the Federal government to invest sufficiently, justly, and equally in underserved communities, particularly communities of color. HUD is committed to taking actions that address the intersection of these two policy directives.

Indeed, the Department has already taken significant steps to address climate threats and environmental injustice. HUD has adapted its programs to help communities both prepare for and respond to the effects of climate change and will continue to take comprehensive action to advance this Administration's priorities on climate adaptation, resilience, and environmental justice. Furthermore, HUD will help lead the Federal government's response to this unprecedented challenge consistent with the Department's unique and historic role in supporting underserved communities, investing in housing across the country, and guiding communities through post disaster recovery and rebuilding.

HUD is recommitting to tackling the climate crisis through the development of an ambitious Climate Action Plan. When fully developed, this plan will guide the integration of climate resilience and environmental justice into HUD's core programs and policies. The actions outlined in this adaptation plan, and forthcoming more comprehensive Climate Action Plan, will help communities across the nation build more resilient infrastructure, promote responsible utility consumption, create good-paying jobs, and address environmental injustices.

Moreover, HUD has affirmed its dedication to the Climate Action Plan's actions by centering them in the Department's current budget priorities, which highlight HUD's intent to promote climate resilience, environmental justice, and energy efficiency within its portfolio and across the housing sector. The Department's fiscal year 2022 budget request included \$800 million to reduce carbon pollution, increase resilience to climate impacts, and address environmental injustice. As part of the Administration's whole-of-government approach to the climate crisis, the budget reflects HUD's commitment to expanding

energy efficiency and climate resiliency in public and assisted housing. HUD's ability to further its commitment hinges upon the support of Congress through appropriation and authorization.

HUD is not alone in this effort; the Department will work with Federal partners, stakeholders, grantees, and members of the public to develop innovative solutions to equitably prepare for and adapt to climate change. The Administration has recognized the profound climate crisis facing the U.S. and the world – yet in this crisis, there is opportunity to build back better. Tackling climate change is an opening to meaningfully improve the lives of individuals and communities across the nation through increased resilience and equity.

## Plan Organization

In response to the policy set forth in Executive Order 14008, this Plan is organized around one overarching goal for programs and policies under HUD's purview: Increase Climate Resilience

The Plan contains four key objectives. Each objective contains a sub-goal or sub-goals with a table that describes the specific actions that HUD will undertake to achieve the primary goal. Each action will serve as a metric that, when accomplished, will move HUD closer to accomplishing its primary goal. For each of these actions, the plan identifies the method for implementing such action (e.g., rulemaking, technical assistance, coordination), the lead office(s) responsible for implementation, the implementation timeline, and the resource needs. Given that each action contains a subset of actions, HUD has detailed the common approach used for each implementation method. The implementation method summaries below give an overview of the underlying work that will be required for each type of action.

To emphasize HUD's commitment to addressing climate change, HUD will be integrating this Climate Adaptation Plan and the future Climate Action Plan into its agency Strategic Plan. Integrating the actions from these plans into the Strategic Plan not only underscores the importance of this work to HUD achieving its mission, but also provides a platform for HUD to track and report on the progress of achieving its climate goals.

**Implementation methods:** For each action, HUD has identified seven distinct implementation methods, each with specific processes and timelines according to agency procedure. These are further outlined below.

1. **Research.** This includes studies of problems and issues within HUD's purview, evaluations of HUD programs, and identification and evaluation of new technologies and approaches to solving problems. Studies and reports include housing and community development matters such as climate-related research on high-performance buildings, energy, and the environment. HUD's Office of Policy Development and Research (PD&R) accepts independent proposals, carries out research in-house, and contracts with external researchers to fulfill HUD's research agenda. Research projects typically take several years to complete.

HUD notes the importance of PD&R research studies to inform Department climate policy and program implementation. PD&R is committed to exploring new studies and research opportunities that will enable HUD to assess the success of the actions identified in this plan as

well as expand climate and environmental justice efforts in the future depending on available resources.

2. **Assessment.** These are short-term reviews or evaluations of specific topics that need to be addressed to implement a policy or program. Assessments are conducted in response to staff or stakeholder concerns or to determine the impact of potential policy or program changes. Assessments can take between 6 months and 2 years.
3. **Coordination.** This involves cross-program and/or interagency collaboration on initiatives or policies in which the organizations share objectives or concerns. While individual programs may have specific regulations or requirements, some objectives can be met by maximizing coordination across programs and partnering with other Federal agencies to harmonize climate-related goals and policies. Agencies can formalize coordination through Memorandums of Understanding and through participation on Federal task forces and working groups.
4. **Rulemaking.** Where program regulations require updating or modification, or when required by Congress to implement a statute, HUD implements a rulemaking process following procedures outlined in 24 CFR part 10. Rulemaking involves multiple rounds of Federal Register publications, Paperwork Reduction Act compliance, stakeholder consultation, legal and program analysis, and approval from the Office of Management and Budget. From beginning to end, rulemaking processes usually takes at least 24 months While rulemaking itself may not require additional resources, the actions and responsibilities that stem from the rulemaking may require additional funding to implement.
5. **Information Technology.** HUD develops IT systems to improve both data collection and program monitoring or reporting. This plan identifies several IT updates needed to improve tracking, monitoring, or assessing energy and climate related performance of HUD's inventory of public and assisted housing. IT solutions often take 2 to 4 years to implement.
6. **Guidance.** Guidance as referenced in this report may be published through a program notice, Mortgagee Letter, or guides or handbooks posted on [HUD Exchange](#) or [www.hud.gov](http://www.hud.gov). Depending on the implementation requirements under statute and regulations, new guidance based on internal program office deliberation, so it can be drafted and released in a shorter time period (e.g., 2 to 4 months).
7. **Technical Assistance.** Technical Assistance (TA) is the transfer of skills and knowledge to HUD customers that may need additional capacity. HUD TA is guidance which enables HUD's customers to overcome a lack of specific skills or knowledge of an associated HUD program, which results in the successful performance of and compliance with that program. TA can take many forms and can be provided directly by HUD staff or delivered by HUD TA providers through the HUD-funded TA program. HUD funds TA and capacity building activities for HUD customers through the departmentwide Community Compass Technical Assistance program. Outside of the standard Departmentwide two-year, congressionally funded Community Compass program,

Congress often provides supplemental funding for TA tied to specific program appropriations (e.g., HOME-American Rescue Plan, CDBG-DR, CDBG-CV).

**Resource Implications:** This column in each table indicates the nature of the resources needed to implement each proposed action—whether offices can undertake proposed actions using existing resources, are anticipating using funds that were included in the President’s FY22 Budget request to Congress or will need to reprioritize existing resources.

1. **None.** Many of the actions identified in this plan utilize existing HUD authority and staff in the implementation and therefore do not require any additional resources.
2. **FY 22 Budget Request.** The Department has existing resources and authorities that can be deployed to increase the efficiency and resilience of HUD-funded new construction and substantial rehabilitation; however, there are meaningful gaps in the Departments existing resources that if filled, could result in more influential climate change action. Recognizing these gaps, the Department was the first ever federal agency to have a climate-specific section in its budget request. HUD requested \$800M in its FY22 budget, across five programs, for energy and resilience. If appropriated, these new resources would be a critical component of this plan and the future Climate Action Plan.
3. **Reprioritize Existing Resources.** For HUD funded TA, the reprioritization of existing resources may require an update to HUD TA Plans from previous years, depending on the nature of the priority adjustment and the source year of the funding identified in each case. The program office will work with the Technical Assistance Division to assess any adjustments to approved plans and ensure the proper process is followed prior to assigning TA. For forthcoming actions, these will be reflected in upcoming HUD TA Plans and Notice of Funding Opportunities (NOFO), not yet issued. For other aspects of HUD programs and TA provided directly by HUD staff, reprioritizing existing resources can occur at the program or office level through leadership approval, temporary staff rotations, and reprogramming older or expiring funds to new priorities.

**Timeline:** The timeline is defined by the fiscal year (FY) and quarter (Q) in which the action is expected to be initiated and completed.

## Increasing Climate Resilience

Affordable housing (including but not limited to public and assisted housing) is increasingly at risk from both extreme weather events and sea-level rise. Recent analysis and mapping by Climate Central projects that the number of affordable housing units at risk from flooding in coastal areas will triple by 2050.<sup>2</sup> Coastal communities are especially at risk – a report from the Denali Commission found that 144 Native Alaskan Villages (43 percent of all Alaskan communities) experienced infrastructure damage from erosion, flooding, and permafrost thaw.<sup>3</sup>

A specific threat to HUD programs is the potential vulnerability of the Federal Housing Administration (FHA) Mutual Mortgage Insurance (MMI) and General Insurance and Special Risk (GI/SR) Funds to increased defaults and loss severities due to physical damage, disruptions in borrowers' ability to repay, and declining property values in vulnerable communities. Johns Hopkins researchers warn of a "potential threat to the stability of financial institutions" as global warming leads to more frequent and more severe disasters, forcing more HUD-insured and other loans to go into default as homeowners cannot or will not make mortgage payments.<sup>4</sup>

Many HUD programs help communities recover from and build resilience to climate hazards and natural disasters. HUD's disaster recovery portfolio alone accounts for the federal government's single largest investment in recovery and resilience in low-to-moderate-income communities. While HUD already plays a major role in this space, the Department must expand its climate resilience work to increase resources for grantees and stakeholders and make it easier for them to implement climate resilient activities. HUD can accomplish its goal of increasing the resilience of communities nationwide through improving climate resources and continuing investment in areas most vulnerable to the impacts of climate threats.

**Scale:** Nationwide.

**Risks and opportunities:** Low-income families and communities of color are disproportionately impacted by climate change.<sup>5</sup> Without targeted intervention, this climate injustice will continue.

## Accomplishments to Date

**Disaster recovery and mitigation:** HUD works with communities to respond to or prepare for natural disasters through two primary funding sources: CDBG-DR and CDBG-MIT. Since 1993, Congress has appropriated a total of \$89.8 billion for CDBG-DR. As of April 2021, this encompasses 137 grants awarded to 64 grantees (34 states and territories and 30 local governments). Active CDBG-DR and CDBG-MIT grants total over \$67 billion. This includes funding to support resilient rebuilding after Superstorm Sandy

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<sup>2</sup> <https://www.climatecentral.org/>

<sup>3</sup> Denali Commission, *Statewide Threat Assessment: Identification of Threats from Erosion, Flooding, and Thawing Permafrost in Remote Alaska Communities*, November 2019. <https://www.denali.gov/wp-content/uploads/2019/11/Statewide-Threat-Assessment-Final-Report-20-November-2019.pdf>

<sup>4</sup> Amine Ouazad, Matthew E. Kahn, *Mortgage Finance and Climate Change: Securitization Dynamics in the Aftermath of Natural Disasters*, [http://www.ouazad.com/resources/paper\\_kahn\\_ouazad.pdf](http://www.ouazad.com/resources/paper_kahn_ouazad.pdf). January 2021. See also New York Times September 27, 2019, <https://www.nytimes.com/2019/09/27/climate/mortgage-climate-risk.html>

<sup>5</sup> <https://nca2018.globalchange.gov/>



in New York, New Jersey, and Connecticut; Hurricane Katrina on the Gulf Coast; and, more recently, Hurricane Harvey in Texas, Hurricanes Irma and Maria in Florida, Puerto Rico, and the U.S. Virgin Islands; and wildfires in California – as well as many other disasters.

Since 2019, HUD has allocated more than \$16 billion of CDBG-MIT funds to 22 states and local governments for activities that lessen the impact of future disasters. Fifty percent of these grant funds must benefit low- and moderate-income persons. The State of Louisiana, for example, will use its \$1.2 billion CDBG-MIT allocation to implement the Louisiana Watershed Initiative, to “fundamentally change Louisiana’s approach to statewide flood mitigation activities” (<https://www.watershed.la.gov/action-plan>). CDBG-MIT is a unique and significant opportunity for grant recipients to use this assistance in areas impacted by recent disasters to carry out strategic and high-impact activities that mitigate disaster risk and reduce future losses, especially for low- and moderate-income families and households.

CDBG-DR grants are also a significant source of Federal support for building resilience, particularly in low- and moderate-income areas. HUD has long required CDBG-DR grantees to implement certain climate-related measures as part of recovery (e.g., elevation of structures in the flood plain, green building standards) and many CDBG-DR grantees have implemented additional forward-looking investments in resilience. The State of New Jersey, for example, has used \$200 million of funding from its Hurricane Sandy CDBG-DR grant to increase the energy resilience of many of its hospitals, allowing for continued operations in the event of future power disruptions.

Additionally, HUD obligated nearly \$1 billion of funding through the National Disaster Resilience competition, funding 13 innovative resilience projects across the country. This includes initiatives in Virginia to foster the development of businesses focused on resilience<sup>6</sup> and to increase California’s resilience to wildfires.<sup>7</sup> HUD has also obligated \$930 million for regional flood mitigation projects in New York, New Jersey, and Connecticut through Rebuild by Design.<sup>8</sup>

While CDBG-DR and CDBG-MIT grants are not permanently authorized, after more than 20 years of supplemental appropriations to fund the awards, CDBG-DR is one of the largest sources of funding for recovery and resilience building, and the largest source that primarily benefits persons with low and moderate income.

**Flood resilience:** HUD has implemented program-specific policies to increase climate resilience, particularly related to flooding. For example, residential new construction and substantial improvements funded with CDBG-DR assistance are now required to elevate two feet above base flood elevation. Similarly, the Federal Housing Administration (FHA) Office of Multifamily Housing (MF) recently updated its standards to require new construction projects in 100-year floodplains to elevate two feet above base flood elevation. FHA MF has extended the same limitations that apply in Coastal High Hazard Areas (V Zones) to all areas within the Limit of Moderate Wave Action (LiMWA) for new construction and substantial rehabilitation, with lesser but still significant limitations on existing properties. HUD will continue this effort by assessing and initiating a modernization of its floodplain management regulations in 24 CFR part 55, potentially extending increased flood protection across all HUD programs.

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<sup>6</sup> <https://riseresilience.org/>

<sup>7</sup> <https://www.hcd.ca.gov/community-development/disaster-recovery-programs/ndrc.shtml>

<sup>8</sup> <http://www.rebuildbydesign.org/our-work/sandy-projects>

**Community Development Block Grants (CDBG):** CDBG is both a flexible and widespread program, reaching over 1,200 local governments in all states and territories. The program’s scope and promotion of community-specific solutions make CDBG a powerful tool for climate resilience. As a condition for funding, CDBG grantees are required to submit a Consolidated Plan every three to five years. In 2016, HUD promulgated the rule *Modernizing HUD’s Consolidated Planning Process to Narrow the Digital Divide and Increase Resilience to Natural Hazards*.<sup>9</sup> This rule requires jurisdictions to incorporate resilience to natural hazard risks and a discussion of how climate change will increase those risks into their Consolidated Plan. The rule also requires CDBG grantees to address the impacts of climate change on low- and moderate-income residents. HUD has developed guidance for grantees, such as the HUD Community Resilience Toolkit, a user-friendly guide to help Community Planning and Development (CPD) recipients learn how current and future natural hazard risks may impact their community and how to reduce said risks. HUD plans to create additional resources and guidance around this rule to help grantees better incorporate climate change adaptation into their regular planning process.

**Indian Housing Community Development Block Grant (ICDBG):** The ICDBG Program provides eligible grantees with direct grants for use in developing Indian and Alaska Native communities, including the provision of decent housing, a suitable living environment, and economic opportunities, primarily for low- and moderate-income persons. The ICDBG provides single purpose grants which are awarded on a competition basis as well as imminent threat grants which are awarded first come, first served to lessen or eliminate problems which pose an imminent threat to the health and safety of tribal residents.

## Objective 1: Update Climate Risk Data and Research

### 1.1 Collect Data and Map Risk

**Implementing offices:** Housing, PD&R, CPD, FHEO

**Description:** Collect complete and accurate building-level data across HUD programs to map existing climate risks and environmental justice concerns. Comprehensive and modernized data collection can help inform how to best address climate impacts to protect HUD-assisted assets and their occupants, with a focus on underserved communities, tribal communities, communities of color, and individuals with disabilities. Accurate and easily available data will enable HUD, grantees, borrowers, and the public to conduct vulnerability assessments and develop resilience plans addressing climate impacts.

Office	Action	Implementation Method	Resource Implications	Timeline
FHA MF, PIH	Review current building-level data to ensure accuracy and facilitate mapping of the portfolio’s climate risk	Assessment, IT Solution	Requested in the President’s FY22 Budget	FY 22 Q3 – FY 23 Q3
Housing	Procure data sources to enable modeling for climate risks	IT Solution	Reprioritize Existing Resources	FY 22 Q3 – FY23 Q4

<sup>9</sup> 81 FR 90997 (Dec. 16, 2016).

FHA SF	Identify additional data elements during underwriting and servicing for all FHA insured mortgages	Assessment	None	FY 22 Q2 – FY 23 Q4
OEE, FHEO, PIH, Housing	Implement vulnerability assessments for multifamily properties, including a consideration of equity and the impact on relevant protected class groups	Technical Assistance	Reprioritize Existing Resources	FY 22 Q4 – ongoing
PD&R	Assess feasibility of expanding existing HUD planning applications to include climate risk data	Assessment	None	FY22 Q1 – FY22 Q3
PD&R	Assess HUD’s research and capacity-building needs related to climate risk of underrepresented communities for inclusion in HUD’s 2022-25 Learning Agenda	Assessment	None	FY22 Q1 – FY 22 Q2

## 1.2 Conduct Research on Climate Resilience

**Implementing Offices:** PD&R, FHEO

**Description:** HUD’s Office of Policy Development and Research’s research agenda will include new studies to assess the effectiveness of current building efficiency codes and recovery programs and to identify resilience best practices. This research will inform and encourage HUD policy makers, grantees, and stakeholders to adopt stricter building requirements, improve programs, and invest in climate resilience.

Office	Action	Implementation Method	Resource Implications	Timeline
PD&R	Assess HUD’s research and capacity-building needs related to building efficiency and resiliency codes for inclusion in HUD’s 2022-25 Learning Agenda	Research	None	FY 22 Q3 – FY 23 Q1
PD&R	Assess HUD’s research and capacity-building needs related to buyouts and resettlement for inclusion in HUD’s 2022-25 Learning Agenda	Research & Guidance	None	FY 22 Q2 – FY 22 Q4
PD&R	Conduct cost effectiveness research of CDBG-DR resilience funding and generate guidance on best practices, vulnerability assessments, and evaluative framework	Research & Guidance	None	FY 23 Q1 - FY 24 Q1
PD&R	Provide resources and expertise to the Advanced Research Projects Agency – Climate (ARPA-C) at the Department of Energy for research on housing, climate adaptation, and resilience.	Research, Coordination	Requested in FY22 Budget	FY22 - ongoing

## Objective 2: Enhance Mortgage Financing

### 2.1 Reduce Climate-Related Financial Risk

**Implementing Offices:** PD&R, Housing, FHEO

**Description:** HUD mortgage financing programs, primarily its insurance programs, enable billions of dollars of capital to fund the purchase, refinance, construction, and rehabilitation of single- and multifamily housing, assisted housing, and healthcare facilities around the country. Per the Executive Order on Climate-Related Financial Risk (EO 14030), HUD is collaborating with the Departments of Veterans Affairs and Agriculture to consider approaches to better integrate climate-related financial risk into underwriting standards, loan terms and conditions, and asset management and servicing procedures. HUD is also exploring market strategies to incentivize both energy and water efficiency and climate-resilient building practices.

Office	Action	Implementation Method	Resource Implications	Timeline
PD&R	Assess HUD's research and capacity-building needs related to economic threats of climate change to housing finance ecosystem for inclusion in HUD's 2022-25 Learning Agenda	Assessment	None	FY 22 Q3 – FY 23 Q2
PD&R	Assess HUD's research and capacity-building needs related to benefits and fair housing implications of including climate risk in FHA underwriting for inclusion in HUD's 2022-25 Learning Agenda	Assessment	None	FY22 Q1 – FY 22 Q2
FHA	Identify and assess approaches to integrate climate-related financial risk into underwriting standards, loan terms and conditions, and asset management and servicing procedures	Assessment	None	FY 22 Q2 – FY 23 Q4
FHA SF, OHP	Consider using reduced Mortgage Insurance Premiums to incentivize property owners to adopt higher building standards	Assessment	None	FY 22 Q2 – FY 23 Q4
FHA SF	Review and update the standards for Manufactured Housing to allow the use of stretch ratios for a Manufactured Home that is certified as ENERGY STAR	Guidance	None	FY22 Q1
FHA SF	Review and update program standards and documentation requirements for underwriting, repairs, and escrow to make it easier for lenders and borrowers to	Assessment, Guidance, Rulemaking	None	FY 22 Q4 – FY 25 Q2

	understand and use the Single Family 203(k) Program for Energy Retrofits and Climate Mitigation			
FHA SF	Assess the benefits and risks of introducing a new loan product, Resilience and Energy Assistance Loan (REAL) Title 1 Property Improvement Program, to provide low-cost financing for consumers making climate hazard mitigation and energy efficiency improvements	Assessment	Reprioritize Existing Resources	FY 22 Q2 - FY 25 Q1
FHA MF	Assess benefits and risks of expanding the Green MIP Program to encourage climate resilience actions. Expansion could include incentives for climate resilience actions such as creating defensible space in fire-prone areas; building or retrofitting to withstand extreme weather; or mitigating for flood risk	Assessment	Reprioritize Existing Resources	FY 22 Q4 - FY 23 Q4
Ginnie Mae	As part of an overall environmental, social, and governance (ESG) strategy, enhance (i) analytical capabilities for environmental assessments; (ii) securities disclosures that create value for investors utilizing ESG metrics, and (iii) pooling, issuance and reporting flexibilities to support FHA, VA, USDA and PIH program innovations having ESG aspects.	IT Solution	Reprioritize Existing Resources	FY22 Q2 – FY23 Q4
Ginnie Mae	Until such time that the new platform goes into production, Ginnie Mae will explore how current capabilities can be leveraged in current form, or with some level of modification, to support shorter term goals of supporting environmental justice initiatives that may be pursued by FHA, VA, USDA and PIH. Securities disclosures are routinely enhanced to meet the ever-evolving demands of MBS investors and Ginnie Mae will explore opportunities to target increased ESG data disclosure with a goal of generating greater investor demand for securities supporting ESG objectives.	Assessment	None	FY22 Q1 – FY23 Q4

## Objective 3. Strengthen Disaster Recovery and Resilience

### 3.1 Update CDBG-DR Grant Requirements to Promote Resilience and Environmental Justice

**Implementing Offices:** CPD

**Description:** With over \$67 billion in active grants, CDBG-DR and CDBG-MIT funds represent the Federal Government’s largest vehicle for supporting resilience and addressing environmental injustice in some of the nation’s most vulnerable areas. 2020 was the sixth consecutive year in which there were ten or more weather and climate disaster events impacting the United States that caused more than a billion dollars in damage. The sheer scale of these events illustrates the importance of HUD’s disaster recovery work. A more holistic integration of resilience and environmental justice principles into the CDBG-DR program will ensure that communities recovering from disasters are more resilient in the future. A commitment to environmental justice means ensuring equal protection from environmental and health hazards and providing all people a meaningful opportunity to participate in the decision-making process to achieve a healthy environment.

Office	Action	Implementation Method	Resource Implications	Timeline
CPD	Finalize the CDBG-DR Universal Notice to describe policies and requirements that can foster resilient projects and promote environmental justice. The Universal Notice describes waivers and alternative requirements that can be applied to future CDBG-DR grants to incorporate mitigation measures, impose sustainable building construction standards, compliance with accessibility requirements, and prioritize underserved communities	Guidance	None	FY 22 Q1 – FY 22 Q2

### 3.2 Enable a Sustainable Recovery for Puerto Rico and the U.S. Virgin Islands

**Implementing Office:** CPD

**Description:** Collaborate with Puerto Rico and the U.S. Virgin Islands (USVI) to support targeted resilience plans and innovative energy solutions for their sustainable long-term recovery.

Office	Action	Implementation Method	Resource Implications	Timeline
OEE	Work with the DOE, Puerto Rico Field Office, and Public Housing Authority (PHA) to train HUD customers on PowerOasis solar plus battery storage pilot	Coordination, Technical Assistance, Assessment	None	FY 22 Q2 – FY 23 Q1

DRSI	Collaborate with the grantees on their work with Federal partners (DOE, DOI, FEMA) to implement the required actions in the Federal Register Notice providing \$2 billion for resilient CDBG-DR Electrical Power Systems for Puerto Rico and USVI	Coordination, Guidance	None	FY 22 Q1 – FY 22 Q3
DRSI	Provide technical assistance to Puerto Rico and USVI to deliver the clean energy and green building programs outlined in their CDBG-DR and CDBG-MIT Action Plans	Coordination, Technical Assistance	None	FY22 Q1

### 3.3 Strengthen Flood Resilience Standards

**Implementing Offices:** CPD

**Description:** Implement EO 13690, Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input, by implementing the Federal Flood Risk Management Standard (FFRMS) and updating HUD’s floodplain management regulations in 24 CFR part 55. (EO 13690 was revoked in 2017 by EO 13807, but was recently reinstated through EO 14030, Climate-Related Financial Risk.) This rulemaking will focus on increasing flood resilience, clarifying processes and standards, promoting environmental justice concerns in floodplain decision-making, improving fiscal security, and minimizing adverse impacts to the beneficial functions of floodplains and wetlands.

Office	Action	Implementation Method	Resource Implications	Timeline
OEE	Update floodplain management and wetlands protection regulations in 24 CFR part 55 to implement FFRMS and otherwise increase flood resilience standards in HUD projects.	Rulemaking	None <sup>10</sup>	In Progress - FY 23 Q1
Departmentwide	Develop a training series for HUD grantees and update HUD’s online tools to reflect updated policy	Technical Assistance, IT Solution	Reprioritize Existing Resources	FY22 Q4 - FY23 Q2

## Object 4. Expand Capacity Building

### 4.1 Provide Climate Resilience and Environmental Justice Training

**Implementing Offices:** PD&R, PIH, CPD, FHEO

<sup>10</sup> Although there may be resource implications for implementing any rulemaking, the full resource implications cannot be known until the rule has been drafted. Therefore, the resource implications for rulemaking apply only to the resources required to draft and publish the rule.

**Description:** Before HUD can advance its work on climate adaptation, mitigation, and environmental justice, it will be necessary for HUD staff, grantees, and stakeholders to have a baseline understanding of climate resilience and environmental justice. HUD will begin to create spaces, both formal and informal, for mutual learning around climate change and its impacts. This learning culture will also focus on environmental justice issues impacting low-income, communities of color, individuals with disabilities, and other protected classes.

Office	Action	Implementation Method	Resource Implications	Timeline
Department-wide	Facilitate trainings for grantees and partners that includes climate adaptation and environmental justice, incorporating climate risk in their areas	Technical Assistance	None	FY 22 Q4, ongoing
PIH, CPD, FHEO	Conduct trainings and provide information to PHAs on adaptation and mitigation activities	Technical Assistance	None	FY 22 Q4, ongoing

## 4.2 Create Community Resilience and Sustainability Resources

**Implementing Office(s):** PD&R, CPD, FHEO

**Description:** Design the next generation of best practices, case studies, and tools developed from HUD research studies and collaboration with other federal agencies and HUD stakeholders. These resources will be dynamic, user-friendly, and inclusive.

Office	Action	Implementation Method	Resource Implications	Timeline
PD&R	Generate case studies and guidance on resilience planning, disaster recovery, strategic funding strategies, and land use planning for HUD customers	Guidance, Technical Assistance	None	FY 22 Q1, ongoing
PD&R, FHEO	Collaborate with Home Innovation Research Labs to create a series of residential resilience guidelines for homebuilders and developers. Guidelines will incorporate the latest resilience construction techniques and best practices presented in a practical, user-friendly format	Coordination, Guidance	None	FY21 Q1 – FY22 Q3
CPD	Develop a tool and webinar series for HUD customers on the need to incorporate resilience measures and stronger building codes when rebuilding after a disaster	Technical Assistance	None	FY 22 Q1 – FY 22 Q4
CPD	Conduct grant “launch” and program implementation technical assistance	Technical Assistance	None	FY 22 Q2, ongoing



	to CDBG-MIT grantees who are working to implement hazard mitigation projects			
CPD	Work with HUD CDBG-DR and CDBG grantees to improve resilience decision making using science-based tools	Technical Assistance	None	FY 22 Q2, ongoing
CPD, FHEO	Organize and expand online library of resources, trainings, and toolkits for climate resilience and environmental justice. Resources will include a range of on-demand webinars and trainings, as well as toolkits, implementation guides, and best practices	Technical Assistance	Reprioritize Existing Resources	FY 22 Q2, ongoing
OLHCHH	Collaborate with the Centers for Disease Control and Prevention on its Building Resilience Against Climate Effects (BRACE) grant program	Guidance	None	FY22 Q1, ongoing

## Appendix A: Abbreviations and Acronyms

AFFH	Affirmatively Furthering Fair Housing
AOS	Add-On Subsidy
ARPA-C	Advanced Research Projects Agency – Climate
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
BBC	Better Buildings Challenge
Btus	British thermal units
CDBG	Community Development Block Grant
CDBG-DR	Community Development Block Grant Disaster Recovery program
CDBG-MIT	Community Development Block Grant Mitigation program
CEQ	White House Council on Environmental Quality
CFR	Code of Federal Regulations
CNA	Capital Needs Assessment
CPD	Office of Community Planning and Development
DOE	U.S. Department of Energy
DOI	U.S. Department of Interior
DRSI	Disaster Recovery and Special Issues Division
EEH	Energy Efficient Home
EJ	Environmental Justice
EO	Executive Order
EPA	Environmental Protection Agency
EPC	Energy Performance Contract
ESG	Environmental, Social, and Governance
FEMA	Federal Emergency Management Agency
FFRMS	Federal Flood Risk Management Standard
FHA MF	Federal Housing Administration, Multifamily Housing
FHA SF	Federal Housing Administration, Single-Family Housing
FHEO	Office of Fair Housing and Equal Opportunity
FRB	Frozen Rolling Base
FY	Fiscal Year
GAO	Government Accountability Office
GHG	Greenhouse Gas
GI/SR	General Insurance and Special Risk
HHS	U.S. Department of Health and Human Services
HUD	U.S. Department of Housing and Urban Development
IECC	International Energy Conservation Code
IT	Information Technology
Lima	Limit of Moderate Wave Action
LISC	Local Initiatives Support Corporation

MIP	Mortgage Insurance Premium
MMI	Mutual Mortgage Insurance
MW	Megawatt
NEPA	National Environmental Policy Act
NIST	National Institute of Standards and Technology
NPL	National Priorities List
OCIO	Office of the Chief Information Officer
OEE	CPD Office of Environment and Energy
OHP	Housing Office of Healthcare Programs
OLHCHH	Office of Lead Hazard Control and Healthy Homes
OMHP	Housing Office of Manufactured Housing Programs
ONAP	Office of Native American Programs
PD&R	Office of Policy Development and Research
PHA	Public Housing Authority
PIH	Office of Public and Indian Housing
Q	Quarter
RAD	Rental Assistance Demonstration
REAL	Resilience and Energy Assistance Loan
RPU	Resident Paid Utility
SOVI	Social Vulnerability Index
TA	Technical Assistance
USVI	U.S. Virgin Islands