U.S. Department of Housing and Urban Development

2024-2027 CLIMATE ADAPTATION PLAN

Submitted: May 31, 2024

Message from the Acting Secretary

Climate change poses one of the most significant challenges of our time, impacting ecosystems, economies, and communities across the globe. Addressing this challenge requires a comprehensive, science-based approach at the federal level. The Department of Housing and Urban Development (HUD) is committed to tackling the climate crisis through its existing ambitious Climate Action Plan and the following HUD Federal Climate Adaptation Plan.

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.

This plan will model the integration of climate resilience and environmental justice into HUD's core programs and policies. The actions outlined in this Adaptation Plan, and HUD's Climate Action Plan, will guide HUD in taking adaptation measures to reduce climate risk in Agency mission and operations while also identifying measures to help communities across the Nation build more resilient infrastructure, promote responsible utility consumption, create good-paying jobs, and address environmental injustices.

Going forward, HUD will work to ensure our policies are guided by the latest scientific research on climate change, ensuring that our actions are evidence-based and effective. Further, we recognize that the impacts of climate change disproportionately affect marginalized communities. Our policies prioritize equity, ensuring that vulnerable populations are not left behind in the transition to a sustainable and climate-resilient future.

To complete our efforts on climate adaptation, we have implemented, and will continue to implement, policies to reduce greenhouse gas emissions across all sectors of the economy impacted by our operations, services, and activities. This includes setting ambitious emissions reduction targets and implementing projects and policies to achieve these targets. HUD will remain committed to implementing 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.

Adrianne Todman

Acting Secretary of the U.S. Department of Housing and Urban Development (HUD)

SECTION 1: AGENCY PROFILE

Everyone deserves a safe and healthy place to live. Where a person lives is an important factor that shapes their long-term health, education, and employment outcomes. As the agency dedicated to expanding access to healthy homes and vibrant communities, it is central to HUD's mission to 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 climate impacts; protects public health; and spurs well-paying jobs and economic growth. The Department must do so in a way that delivers on the President's commitment to environmental justice[1], as well as promoting racial equity[2].

One of President Biden's first actions in office was issuing 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. HUD will play a critical role in implementing this vision, elevating people through building more resilient, sustainable, and inclusive communities across the country. Consistent with EO 13985, *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government*, and EO 14096, *Revitalizing Our Nation's Commitment to Environmental Justice for All*, HUD allocates resources in a manner that addresses the historic failure of the Federal government to invest sufficiently, justly, and equitably in underserved and disadvantaged communities, particularly low-income households and communities of color.

HUD, through its ambitious Climate Action Plan first issued in 2021 (with a technical update in 2023) as the successor to its Climate Change Adaptation Plan, issued in 2014, sets goals, tracks progress, and guides the comprehensive integration of climate resilience, sustainability, and environmental justice across its portfolio. The Department has maintained, adapted, and created programs and policies to help communities prepare for and respond to the effects of climate change. HUD's Climate Action Plan contains over 100 concrete actions, related to climate resilience, mitigation, and environmental justice, that are monitored by the Department's Climate and Environmental Justice Working Group (CEJWG) and captured in the Department's Strategic Plan.

HUD has affirmed its dedication to the Climate Action Plan's actions by centering them in the Department's current budget priorities. The President's Fiscal Year 2025 Budget included $407 million for targeted investments to improve the quality of housing through climate resilience and energy and water efficiency. 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.

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[1] FACT SHEET: President Biden Signs Executive Order to Revitalize Our Nation's Commitment to Environmental Justice for All | The White House

[2] FACT SHEET: President Biden Signs Executive Order to Strengthen Racial Equity and Support for Underserved Communities Across the Federal Government | The White House

The Department will lead the Federal government's response to this unprecedented challenge, consistent with its unique and historic role in supporting underserved and disadvantaged communities, investing in housing across the country, and helping communities through post disaster recovery and rebuilding. HUD will work with Federal partners, stakeholders, grantees, and members of the public to develop innovative solutions for advancing climate adaptation and resilience.

The actions outlined in the Climate Action Plan, and in this Adaptation Plan, will help to build more resilient infrastructure, promote responsible utility consumption, create good-paying jobs, and address environmental injustices. Through its Climate Adaptation Plan, HUD also advances environmental justice as part of its mission, consistent with EO 14008 and with EO 14096.

AGENCY PROFILE	
Mission	HUD's mission is to create strong, sustainable, inclusive communities and quality affordable homes for all. HUD is working to strengthen the housing market to bolster the economy and protect consumers; meet the need for quality affordable rental homes; utilize housing as a platform for improving quality of life; build inclusive and sustainable communities free from discrimination; and transform the way HUD does business.
Adaptation Plan Scope	Ginnie Mae, Federal Housing Administration (FHA)
Agency Climate Adaptation Official	Kevin McNeely, Chief Sustainability Officer, General Deputy Assistant Secretary for Administration Alexis Pelosi, Senior Advisor for Climate, Office of the Secretary
Agency Risk Officer	Wilmer J. Graham, Chief Risk Officer
Point of Public Contact for Environmental Justice	Claudette Fernandez, General Deputy Assistant Secretary for Community Planning and Development
Owned Buildings	0 - HUD does not own any buildings, except for a small amount of short-term ownership of properties under foreclosed Federal Housing Administration (FHA)-insured mortgages before sale.[3] HUD has authority to operate and maintain only the Robert C. Weaver Building, which is fully serviced under GSA leases.

[3] Given the temporary nature of ownership, these properties are not considered under this plan and the term "portfolio" or "properties" shall only refer to office leases with GSA.

Leased Buildings	91 Occupancy Agreements with a total of 3,321,331.00 RSF (2023 FASTFA Data Call).
Employees	7672 total employees and 72 contractors (2023 FASTFA Data Call).
Budget	FY22 Enacted - $65.653B (FY22 Consolidated Appropriation Act) FY23 Enacted - $72.139B (FY23 Consolidated Appropriation Act) FY24 Enacted- $75.538B (FY24 Enacted Appropriations) FY25 President's Budget- $72.6B
Key Areas of Climate Adaptation Effort	HUD's Strategic Plan outlines three core parts for advancing "Strategic Goal 4: Advance Sustainable Communities." These include to: • Invest in Climate Resilience and Carbon Reduction: Invest in climate resilience, energy efficiency, and renewable energy across HUD programs (*Objective 4A*). • Strengthen Environmental Justice: Reduce exposure to health risks, environmental hazards, and substandard housing, especially for low-income households and communities of color (*Objective 4B)*. • Integrate Healthcare and Housing: Advance policies that recognize housing's role as essential to health (*Objective 4C*). Although adaptation considerations are embedded across Goal 4, Objective 4A places emphasis on adaptation and resilience building. It identifies various strategies and major milestones to advance this work, including to: • Promote climate resilience, decarbonization, and environmental justice across HUD programs; • Create community resilience and sustainability resources; • Improve utility data collection, reporting, and tracking; • Initiate utility benchmarking requirements; • Strengthen green codes and standards across HUD programs; • Foster innovation while removing barriers to energy efficiency and renewable energy in the HUD portfolio; • Eliminate discriminatory barriers to ensure disadvantaged communities can equitably access disaster and mitigation related resources; and • Elevate customer perspectives and experiences to inform future HUD investments into climate resilience, energy efficiency, and renewable energy.

SECTION 2: RISK ASSESSMENT

HUD used the Federal Climate Mapping for Resilience and Adaptation Application (Federal Mapping App)— which was developed for federal agencies by the White House Council on Environmental Quality (CEQ) and the National Oceanic and Atmospheric Administration (NOAA) – to conduct a high-level screening of climate hazard exposure for federal facilities and personnel.

HUD assessed the exposure of its buildings and employees to five climate hazards: extreme heat, extreme precipitation, sea level rise, flooding, and wildfire risk.

Climate Data Used in Agency Risk Assessment

Hazard	Description	Scenario	Geographic Coverage
Extreme Heat	Measured as whether an asset is projected to be exposed to an increased number of days with temperatures exceeding the 99th percentile of daily maximum temperatures (calculated annually), calculated with reference to 1976-2005. Data are from high-resolution, downscaled climate model projections based on the Localized Constructed Analogs (LOCA) dataset prepared for the 4th National Climate Assessment.	RCP 4.5 RCP 8.5	CONUS CONUS
Extreme Precipitation	Measured as whether an asset is projected to be exposed to an increased number of days with precipitation amounts exceeding the 99th percentile of daily maximum precipitation amounts (calculated annually), with reference to 1976-2005. Data are from high-resolution, downscaled climate model projections based on the LOCA dataset prepared for the 4th National Climate Assessment.	RCP 4.5 RCP 8.5	CONUS CONUS and AK
Sea Level Rise	Measured as whether an asset is within the inundation extents from NOAA Coastal Digital Elevation Models and the 2022 Interagency Sea Level Rise Technical Report. Intermediate and Intermediate-High sea level rise scenarios used as proxies for RCP 4.5 and 8.5, respectively.	RCP 4.5 RCP 8.5	CONUS and PR CONUS and PR
Wildfire Risk	Measured as whether an asset is in a location that is rated as high, very high, or extreme risk based on the U.S. Forest Service Wildfire Risk to Potential Structures (a data product of Wildfire Risk to Communities), which estimates the likelihood of structures being lost to wildfire based on the probability of a fire occurring in a location and likely fire intensity. Data reflects wildfires and other major disturbances as of 2014.	Historical	All 50 States
Flooding	Measured as whether an asset is located within a 100-year floodplain (1% annual chance of flooding) or 500-year floodplain (0.2% annual chance of flooding), as mapped by the Federal Emergency Management Agency National Flood Hazard Layer.	Historical	All 50 States and PR

Exposure to extreme heat, extreme precipitation, and sea level rise were evaluated at mid-(2050) and late-century (2080) under two emissions scenarios, Representative Concentration Pathway (RCP) 4.5 and RCP 8.5. Exposure to flooding and wildfire risk were only evaluated for the present day due to data constraints.

Climate Scenarios Considered in Agency Risk Assessment

Scenario Descriptor		Summary Description from 5th National Climate Assessment (NCA5)
RCP 8.5	Very High Scenario	Among the scenarios described in NCA5, RCP 8.5 reflects the highest range of carbon dioxide (CO_2) emissions and no mitigation. Total annual global CO_2 emissions in 2100 are quadruple emissions in 2000. Population growth in 2100 doubles from 2000. This scenario includes fossil fuel development.
RCP 4.5	Intermediate Scenario	This scenario reflects reductions in CO_2 emissions from current levels. Total annual CO_2 emissions in 2100 are 46% less than the year 2000. Mitigation efforts include expanded renewable energy compared to 2000.

Additional detail about the data used in this assessment is provided in Appendix A.

2A. Climate Hazard Exposures and Impacts Affecting Federal Buildings

Because HUD does not own any facilities, HUD facilities are included within the General Services Administration (GSA) portfolio analyzed in the risk assessment conducted in the GSA Climate Adaptation Plan. HUD has 91 mission-dependent sites/facilities that are leased from or through GSA. HUD intends to formally partner directly with GSA to address the vulnerabilities of these sites and facilities to incremental climate change and variability. HUD will work with GSA during FY 2024/25 to ensure that leases are captured within the risk assessment for the GSA portfolio and to identify opportunities for partnerships to mitigate risk.

The Robert C. Weaver building, HUD Headquarters, is also a GSA owned building that HUD leases but has delegated authority to operate and maintain.

2B. Climate Hazard Exposures and Impacts Affecting Federal Employees

Indicators of Exposure of Employees to Climate Hazards	RCP 4.5 2050	RCP 4.5 2080	RCP 8.5 2050	RCP 8.5 2080
Extreme Heat: Percent of employees duty-stationed in counties projected to be exposed to more days with temperatures exceeding the 99th percentile of daily maximum temperatures (calculated annually), from 1976-2005	99%	99%	99%	99%
Extreme Precipitation: Percent of employees duty-stationed in counties projected to be exposed to more days with precipitation amounts exceeding the	99%	99%	99%	99%

99th percentile of daily maximum precipitation amount (calculated annually), from 1976-2005				
Sea Level Rise: Percent of employees duty-stationed in counties projected to be inundated by sea level rise	8%	53%	8%	58%
	High Risk	**Very High Risk**	**Extreme Risk**	
Wildfire: Percent of employees duty-stationed in counties at highest risk to wildfire	1%	3%	1%	

Using the Federal Mapping App, HUD determined that at nearly all Agency staff are expected to experience increased exposure to the identified climate hazards. These hazards include an increased number of annual days of extreme heat and extreme precipitation and rising sea levels. The percentage of employees expected to experience increased wildfire risk is minimal, with approximately 3% at very high risk, 1% within the high risk, and 1% within the extreme risk categories.

While 99% of the HUD's employees are expected to experience an increase in the number of extreme precipitation days utilizing the RCP 4.5 Mid-century projections, it is expected that the majority will see an increase of at least 20% in extreme precipitation days. Using the RCP 8.5 Late-century model, these estimates extend to a 40% increase or higher.

Exposure to extreme heat is calculated in the Federal Mapping App using the estimated annual number of days with a maximum temperature greater than the average of the four hottest days per year historically. As indicated in the chart above, nearly all of HUD's employees are expected to experience exposure to an increased number of days considered to have extreme temperatures. Exposure levels range from a roughly 300-1200% increase (3-12 times the number of days) using the RCP 4.5 Mid-century to a greater than 1500% increase (15 times or greater the number of days) using the RCP 8.5 Late-century estimates.

Sea level rise may affect 8 to 58% of HUD's employees who are located in regions susceptible to these conditions.

2C. Climate Hazard Exposures and Impacts Affecting Mission, Operations and Services

Driven by climate change, the increasing frequency, intensity, and duration of natural disasters and severe weather events present a growing risk to the health and safety of HUD-assisted households and the physical assets financed or

subsidized by HUD.[4] HUD has many programs that help communities recover and build resilience, including HUD's disaster recovery portfolio which alone accounts for the Federal government's single largest investment in recovery and resilience in low-to-moderate-income communities. Increasing investments in areas and communities that are at risk and most vulnerable to high climate hazard exposure bolsters the resilience of public and assisted housing and HUD's mission.[5] HUD's related financial risk exposure and steps to reduce these risks is being assessed through HUD's work with the Office of Management and Budget (OMB) under EO 14030, *Climate-Related Financial Risk*.[6]

[4] See HUD's published Climate Resilience Toolkit, https://www.hudexchange.info/news/resourceavailable-hud-community-resilience-toolkit/

[5] White paper by the Office of Management and Budget, "Climate Financial Risk: The federal Government's Budget Exposure to Financial Risk Due to Climate Change"

[6] https://www.whitehouse.gov/wp-content/uploads/2024/03/ap_11_climate_risk_fy2025.pdf.

SECTION 3: IMPLEMENTATION PLAN

3A. Addressing Climate Hazard Impacts and Exposure

HUD is committed to incorporating climate action and sustainability across its operations. Despite having a relatively small directly managed federal footprint, HUD recognizes opportunities that exist to integrate climate adaptation into the Department's current practices. The Department will continue to identify actions to improve climate resilience, reduce emissions, and promote environmental justice within its own operations and in the communities it supports.

1. Addressing Climate Hazard Exposures and Impacts Affecting Federal Buildings

HUD has only one facility that it manages, the Robert C. Weaver Building, which is HUD's Headquarters located in Washington, DC. The Robert C. Weaver Building is owned by GSA, but HUD has delegated authority to operate and maintain it. HUD's other mission-dependent sites/facilities are GSA leases that HUD does not control.

The Disaster Resilience Planning Act (Pub. L. No. 117-221) (DRPA) and coordinating guidance from the Office of Management and Budget (OMB) direct agencies to incorporate natural disaster resilience into real property asset management and investment decisions. HUD does not own any buildings (except for a small amount of short-term ownership of properties under foreclosed Federal Housing Administration (FHA)-insured mortgages before sale) or land, nor does the agency report its facilities in the Federal Real Property Profile Management System (FRPP MS). HUD's spaces are included within the GSA facilities data. Because HUD does not have any assets as described in DRPA or OMB Memo M-24-03, *Advancing Climate Resilience through Climate-Smart Infrastructure Investments and Implementation Guidance for the Disaster Resiliency Planning Act,* the Department manages its leases in close coordination with GSA. Lease management decisions and GSA coordination are handled within the Office of Administration. This office includes HUD's General Deputy Assistant Secretary (GDAS) for Administration, who is the agency's Chief Sustainability Officer (CSO).

HUD remains committed to advancing adaptation and climate resilience. HUD has made significant investments in building improvements and measures to reduce energy and water consumption at the Robert C. Weaver Building. HUD partnered with GSA in 2013 on a project to replace the roof of the Weaver Building, which included installation of a reflective "cool" roof coating. In 2015 the Department completed work under a large Energy Savings Performance Contract (ESPC) that included building-wide retrofits to lighting, water conservation measures, building envelope improvements, conversion to Variable Air Volume (VAV) systems for heating and cooling, and the installation of direct digital controls for energy-intensive building systems. The benefits from these improvements are multifaceted. The energy and water savings resulting from conservation

measures both reduce the strain on utility systems and reduce greenhouse gas emissions associated with the operation of the facility. These improvements also increase building reliability and resilience to adverse or severe weather conditions.

To further demonstrate HUD's commitment to resilience and energy efficiency, the Department modified the ESPC in FY2023 to fund more conservation measures that are described in the table below.

Prioritized Actions to Address Climate Hazard Exposures and Impacts Affecting Federal Buildings		
Climate Hazard Impact on and/or Exposure to Buildings	Priority Action	Timeline for implementation (2024-2027)
Collaborate with GSA to support climate readiness and net-zero emissions initiatives for government and private leased facilities, relevant to all hazards which will vary by location.	Work with the GSA to assess potential hazard impacts to HUD leased space.	Contact GSA account manager to identify and request climate adaptation measures in HUD's real property portfolio- complete during FY24.
Exposure to extreme heat.	Utilize ESPC to perform retrofits and improvements at the Robert C. Weaver Building.	Perform the following Energy Conservation Measures (ECMs): Replace main chillers at the Weaver Building, which will increase system reliability and reduce risk of cooling loss at critical times- anticipated completion July FY24. Perform LED lighting retrofit to entire Weaver building, which will save energy and reduce cooling load- anticipated completion FY25.

Exposure to extreme heat.	Collaborate with the GSA to replace the main Air Handling Units (AHUs) at the Robert C. Weaver Building.	Complete study and design FY24. Construction expected to start FY25.

2. Addressing Climate Hazard Exposures and Impacts Affecting Federal Employees

The assessment in Section 2B indicates that 99% of HUD employees will experience at least some noticeable increase in days with heat or precipitation that exceeds the 99th percentile of historical extremes. These estimates vary across geographies, ranging from marginal increases of 0-10% to greater than 50% increases in number of days with extreme precipitation. In addition, some areas are projected to see a greater than 1500% increase in number of days with extreme heat. To keep its workforce safe and informed, HUD will use the strategies outlined in the table below to address the risks and create adaptive measures.

Prioritized Actions to Address Climate Hazard Exposures and Impacts Affecting Federal Employees		
Climate Hazard Impact on and/or Exposure to Employees	Priority Actions	Timeline for implementation (2024-2027)
Collaborate with GSA on opportunities to improve climate readiness for employees.	Work with the GSA to identify opportunities to protect occupants, reduce risks, and ensure safety from potential climate hazards in HUD leased space.	Collaborate with GSA account manager(s) to identify and request climate adaptation measures in HUD's real property portfolio during FY24.

Evaluate workforce risks related to occupational hazards.	Determine hazard level to employees based on potential exposure level and factors such as: office-based employees, telework percentage, and onsite field work such as inspections or construction sites.	Develop strategies to reduce employee risks associated with occupational exposures during FY24. Create a campaign to increase employee awareness of hazards and exposure risks during FY25. Evaluate occupational health and safety policy for opportunities to mitigate climate risk and adopt and implement effective solutions – FY25.

3B. Climate-resilient Operations

1. Accounting for Climate Risk in Planning and Decision Making

HUD's mission-dependent sites/facilities are included within the GSA's facilities data. Although HUD does not have any assets as described in DRPA or OMB Memo M-24-03, the Department manages its leases in close coordination with GSA. Lease management decisions and GSA coordination are handled within the Office of Administration.

2. Incorporating Climate Risk Assessment into Budget Planning

During the budget formulation process, HUD issues guidance to all program offices requesting their budget submissions include proposals that consider or address climate risk. In addition, the Department's Annual Strategic Capital Plan is considered during budget formulation to assess funding allocations required for supporting actions designed to reduce emissions and increase sustainable practices and climate resilience within HUD's Headquarters building, field offices, and the HUD leased vehicle fleet. Funding is allocated to support reducing greenhouse gas emissions through consolidation of offices, reduction of HUD's overall footprint, and conversion of the vehicle fleet to Electric Vehicles (EVs).

HUD's budget requests have identified the Department's plan to expand the current scope of the Energy Savings Performance Contract (ESPC) to include new energy conservation measures (ECM) that will replace outdated technology and increase energy savings in the Robert C. Weaver Building. This effort will allow HUD to replace outdated, inefficient, and unreliable building chillers and other equipment and amortize costs over the remaining 10-year term of the ESPC contract. Chiller and LED lighting replacement projects began in November 2023. The benefits from these improvements are multifaceted. The energy and

water savings resulting from conservation measures both reduce the strain on utility systems and reduce greenhouse gas emissions associated with the operation of the facility. These improvements also increase building reliability and resilience to adverse or severe weather conditions.

3. Incorporating Climate Risk into Policy and Programs

HUD programs invest billions of dollars every year in housing, infrastructure, and services for disadvantaged communities. Recognizing the disproportionate impact and burdens of climate change – current and future – on the households and communities HUD serves, the Department is incorporating climate risk into policy and programs, delivering funding, expanding access to information and resources, and adjusting policies to build resilient communities and promote environmental justice. Incorporating climate risk not only protects communities but safeguards Federal dollars and investments.

HUD's Climate Action Plan (CAP) contains over 100 concrete actions related to climate adaptation and resilience, energy efficiency and greenhouse gas reduction, and environmental justice. The CAP serves as a mechanism for tracking progress across programs and policies and incorporates this data into the Agency's Strategic Plan. Policies in the Strategic Plan are coordinated closely with senior HUD leadership, including risk/resilience officers.

In line with the President's whole-of-government approach to tackling climate change, HUD is collaborating with agency partners to amplify these efforts. For example, HUD and HHS are working together to recognize housing as a social determinant of health, and HUD and DOE are continuing their partnership to reduce carbon emissions in the building sector and to cut long-term costs for consumers through energy efficiency improvements.

Climate Adaptation and Resilience: In HUD's Community Development Block Grant-Disaster Recovery (CDBG-DR) program, the Department is finalizing implementing notices to reflect climate priorities and describe policies and requirements that can foster resiliency projects and promote environmental justice. In HUD's Single-Family Program Office, HUD is in the process of reviewing and updating program standards and documentation requirements for underwriting, repairs, and escrow to make it easier for lenders and borrowers to understand and use the 203(k) Rehabilitation Mortgage Insurance Program for Energy Retrofits and Climate Mitigation.

New programs have been established through funding available under the Inflation Reduction Act, such as the Green and Resilient Retrofit Program (GRRP), a first-of-its-kind program at HUD which integrates a focus on climate risk and energy efficiency. GRRP uses FEMA's National Risk Index (NRI) as a tool to identify and prioritize high risk projects and, through funding provided, supports HUD-assisted multifamily housing property owners in increasing climate resilience and adaptation through carbon emissions reductions, utility efficiency improvements, renewable energy generation, and building resilience.

To support these efforts, HUD continues to invest in robust technical assistance, creating new guides, tools, toolkits and learning opportunities across the Department. Earlier this year, the Office of Multifamily Housing Programs developed a Resiliency Assessment Tool which is being piloted as part of GRRP. The tool assists property assessors in the analysis of the vulnerability of properties to impacts caused by natural hazards and identifies opportunities for risk mitigation measures to improve resiliency to these hazards. HUD anticipates making the tool available for broader application across its portfolio in the future.

HUD is partnering with the Federal Emergency Management Agency (FEMA) in the Pre-Disaster Housing Planning Initiative (PDHI) to support state planning for housing recovery before disasters occur and promote collaborative approaches to housing recovery.

Nature-Based Solutions: HUD is promoting nature-based solutions and supporting sustainable planning, design, and management. Development of technical assistance, such as HUD's Nature-based Solutions Implementation Guide, provides step-by-step instructions to assist communities in implementing nature-based solutions. Funds in HUD's CDBG program, which reaches every state and over 1,200 local governments across the country, are commonly used for investments in nature-based solutions: funding parks, playgrounds, open spaces, and other recreational facilities in nature-deprived communities. Since 2016, grantees have spent 3-4% of all CDBG expenditures on parks and recreational facilities. Similarly, HUD's Choice Neighborhoods program integrates nature-based solutions through enhanced or improved access to green spaces and revitalization of severely distressed public and/or assisted housing.

Environmental Justice: Environmental justice is core to HUD's mission to create strong, sustainable, and inclusive communities.

Environmental justice and climate adaptation activities are coordinated at HUD through the Climate and Environmental Justice (CEJ) Council, comprised of senior leadership across all program offices and through its accompanying CEJ Working Group, comprised of staff across the Department. HUD is also a member of the White House Environmental Justice Interagency Council (WHEJAC) and has received recommendations from the WHEJAC on climate planning, preparedness, response, recovery, and impacts.

HUD's efforts to further environmental justice flow across the Department and entail working to ensure protection from environmental and health hazards for communities while investing in the reversal of disparate health outcomes and improved economic opportunity. HUD does this through engagement with communities in the development of rules, regulations, and funding opportunities; working with Tribal communities to achieve safe, resilient housing and infrastructure; and providing technical support to improve equity in community planning and engagement. To support authentic community engagement efforts, HUD developed the Citizen Participation & Equitable Engagement (CPEE) Toolkit,

which provides recommendations and best practices for conducting inclusive and equitable engagement that will inform and help create programs for the whole community, with a special emphasis and a targeted approach on historically vulnerable and underserved areas.

HUD is committed to addressing environmental inequities through enforcement of federal fair housing and civil rights laws, including the Fair Housing Act of 1968, Title VI of the Civil Rights Act of 1964, Section 109 of Title I of the Housing and Community Development Act of 1974, Section 504 of the Rehabilitation Act of 1973, and Title II of the Americans with Disabilities Act of 1990. The Fair Housing Act not only prohibits discrimination in housing on the basis of race, color, national origin, religion, sex (including gender identity and sexual orientation), disability and familial status but also requires HUD and HUD funding recipients to take meaningful actions to overcome patterns of segregation, promote fair housing choice, and foster inclusive communities that are free from discrimination, including disparate access to healthy environments, neighborhoods and homes.

Tribal Nations: HUD works to create opportunities for Tribal partners to provide input related to climate adaptation, when applicable and relevant, through various forums. For example, throughout 2023 and 2024 HUD has engaged in Tribal consultation to solicit feedback on the Indian Community Development Block Grant (ICDBG) program. The feedback received during consultation is documented and submitted to the appropriate HUD program offices. This process is one example of how Tribal consultation and coordination are conducted on an ongoing basis through various formal and informal processes and are guided by the Department's Government-to-Government Tribal Consultation Policy.

The Tribal Intergovernmental Advisory Committee (TIAC) is another important way that HUD is continuously considering the needs of Tribal nations. The TIAC meets monthly and briefs HUD leaders semiannually and develops white papers communicating policy issues and providing formal recommendations to HUD program offices. HUD also leads The Tribal Housing and Related Infrastructure Interagency Task Force, an interagency task force to develop a coordinated and streamlined environmental review for Tribal housing projects comprised of representatives from eight federal agencies and seven Tribes. In the past year the Task Force developed the Tribal/Interagency Environmental Streamlining (TIES) toolkit. TIES is the only Tribally-focused tool that identifies environmental review requirements by agency and provides resources, tools, and best practices for Tribes to streamline environmental review processes.

Tribal consultation has resulted in improvements to program regulations, guidance, and increased technical assistance. HUD has created a Tribal Climate Resilience and Adaptation website specifically for Tribes. The site pulls together tools and resources that are tailored to Tribes, including maps, data sets, and adaptation plans. It also includes information on Federal funding that supports Tribes addressing climate change, as well as case studies. HUD has collaborated with U.S. Departments of Treasury and Energy to

deliver two webinars about federal funding for climate resilience and Tribal housing energy projects.

Co-Benefits of Adaptation: HUD is working to increase climate resilience through incorporating green building requirements or incentives across financing programs and by working to update and strengthen minimum codes or standards. HUD's Green Mortgage Insurance Premium (Green MIP) provides a strong incentive for FHA multifamily borrowers to adopt one of several approved green building standards, lowering mortgage insurance premiums by as much as 50 basis points (0.50%). HUD's Rental Assistance Demonstration (RAD), through a notice published in July 2023, has significant requirements for new construction and rehabilitation that support both energy efficiency and climate resilience. HUD's GRRP Leading-Edge Cohort requires projects to commit to adopting one of several above-code zero energy standards (e.g. Enterprise Green Communities, LEED, National Green Building Standard, Passive House, Zero Energy Ready Multifamily, or Energy Star Nextgen).

In April 2024, HUD published two rules that increase climate resilience and sustainability. On April 23rd, HUD published the **Federal Flood Risk Management Standard (FFRMS)**, a final rule ensuring that federally-funded construction projects are built to withstand current and future flood risks. On April 26th, HUD and the U.S. Department of Agriculture (USDA) published updated Minimum Energy Standards for new construction to strengthen energy efficiency standards and reduce the burden on household budgets, while protecting the environment for future generations.

Through delivering funding, expanding assistance and resources, and amending its policies, HUD programs are strengthening the capacity of communities to adapt to climate change.

4. Climate-Smart Supply Chains and Procurement

HUD's goal is to ensure that 100% of applicable new eligible contract actions, including task or delivery orders under new contracts and existing contracts, meet sustainable acquisition requirements, and require the supply or use of products and services that are energy efficient (ENERGY STAR or Federal Energy Management Program-designated), water efficient, biobased, environmentally preferable, non-ozone depleting, contain recycled content, or are non-toxic or less toxic alternatives.

HUD Procurement Handbook 2210.3, Revision 10, Subchapter 2423.4 Use of Recovered Materials and Biobased Products, states that it is the policy of the Department to procure products containing recovered materials to the greatest extent practicable in accordance with all applicable Federal statutes, regulations, policies, and other guidelines.

HUD's purchasing includes minimal mission-dependent supplies and services. The most critical of these are information and communications technology (ICT) and operational

technology (OT) products and services. Going forward, HUD will assess supply chain vulnerability to potential climate-related disruptions and implement strategies to mitigate the associated risks to operations.

5. Climate-Informed Funding to External Parties

As part of the Administration's whole-of-government approach to the climate crisis, the Department is expanding efficient and resilient housing options in Public Housing and other HUD-assisted housing.

HUD provides various grant and loan programs to help build climate adaptation and resilience while also working to embed climate resilience across the Department's portfolio. For example, through the Indian Housing Block Grant competitive program, HUD provides funds to Native American Tribes to help them build and rehabilitate housing on Tribal lands and prepare for the effects of climate change. Choice Neighborhoods grants are designed to revitalize neighborhoods in an energy-efficient and resilient manner.

HUD's Office of Policy Development and Research has several research priorities studying how best to encourage resilient communities, including housing technology research, which has produced important information on cost-effective building technologies and on building technologies that make the housing stock more energy efficient and resilient, such as the Designing for Natural Hazards Series for builders and developers.

The Department has made important changes to program delivery. For example, HUD overhauled the Agency's disaster recovery efforts to better serve communities that face the direct impacts of weather-related disasters. Based on the increasing number of disasters, the Department established the Office of Disaster Management (ODM) in the Office of the Deputy Secretary, and the Office of Disaster Recovery (ODR) within the Office of Community Planning and Development to streamline the agency's disaster recovery and resilience work by increasing coordination, streamlining internal processes, and increasing capacity to get recovery funding to communities. The CDBG-DR Consolidated Notice included new climate and environmental justice-related requirements that apply to the $10 billion in recovery funds allocated for 2020-2023 disasters to prioritize long-term environmental resilience and disadvantaged communities.

HUD supports disadvantaged communities both through its programs and outreach resources. HUD has various tools and technical assistance initiatives to help communities navigate federal funding opportunities, including the Funding Navigator, the Tribal Climate Resilience and Adaptation Website, the Community Resilience Toolkit and accompanying implementation guides, the Resilient Building Codes Toolkit, the Community Compass Technical Assistance program, and the Climate Communities Initiative (CCI). The CCI has, as of December 2023, provided direct technical assistance

to seven participating communities on local priorities or projects related to climate resilience.

The Notice of Funding Opportunity (NOFO) from HUD's Supportive Housing for the Elderly Program (Section 202), published in September 2022, awarded points for projects that incorporate green and resilient building approaches and outcomes. In January 2024, HUD finalized Climate Preference Guidance for NOFOs. HUD's Supportive Housing for the Disabled (Section 811) FY23 NOFO includes preference points for Environmental Justice and Climate. The Department's 2025 Budget requests $407 million across HUD for targeted investments to improve the quality of housing and support disadvantaged communities through climate resilience, energy, and water efficiency.

3C. Climate Training and Capacity Building for a Climate Informed Workforce

Training and Capacity Building	
Agency Climate Training Efforts	*Percent of the Agency's Federal staff that have taken a 60+ minute introductory climate training course (e.g., Climate 101).* <1% - Two HUD employees completed Climate Audio Summaries of Training, and four employees started climate trainings from the Skillsoft Percipio Training Catalog.
	Percent of the Agency's senior leadership (e.g., Sec, Dep Sec, SES, Directors, Branch Chiefs, etc.) that have completed climate adaptation training. *0%*
	Percent of budget officials that have received climate adaptation related training. *0%*
	Percent acquisition officials that have received climate adaptation related training. *0%*
	Additional efforts the Agency is taking to develop a climate informed workforce. The Department is undertaking efforts to foster a climate-informed and ready workforce, and to train

	staff on new funding resources for resilience and sustainability efforts. The Climate and Environmental Justice Working Group (CEJWG) spearheads monthly meetings to share information, trainings, and resources on key topics related to environmental justice and resilience, and to track progress on objectives outlined in the Climate Action Plan. In January 2024, 200 Denver Field Staff received training on funding opportunities made available through BIL and IRA for climate resilience. HUD maintains the goal of training all field office staff by the end of calendar year 2024. Other examples of staff engagement include: • **Climate Conversations**: HUD-wide employee climate series intended to increase employee knowledge of key elements of the climate portfolio and climate work across programs. • **Counseling trainings**: The Office of Housing hosted sessions to train housing counselors about the key role of energy efficiency in boosting housing affordability and improving health, safety, and comfort. • **Lunch and Learns**: The Office of General Counsel conducted a series on climate and environmental justice for between 140 and 170 OGC staff at each webinar. The Office of Public and Indian Housing established a Climate Action Related Lunch and Learn group that has membership of fourteen PIH Field Office Directors.
Agency Capacity	*Number of full-time Federal staff (FTE) across the Agency that have tasks relevant to climate adaptation in their job description*. Climate adaptation and resilience is part of HUD's mission to create strong, sustainable, inclusive communities and quality affordable homes for all. It is embedded in HUD's Strategic Plan and Climate Action Plan and identifies milestones and actions for each program office. HUD also has a Climate and Environmental Justice Working Group (CEJWG) led by HUD

	program offices that focuses on climate action, resources, and training opportunities across the Department.

HUD's internal Climate and Environmental Justice Working Group, led by the Senior Advisor for Climate and the Office of Environment and Energy, is focused on the long-term integration of climate action and environmental justice into the Department's programs to better achieve HUD's mission, both through implementation of the Department's Climate Action Plan and through building a climate informed workforce. The group has met monthly since 2021 and is comprised of nearly 100 members at varying levels of hierarchy across the Department.

In 2023, the Office of Environment and Energy provided 7.5 hours of climate training and capacity building to over 4,000 participants through a HUD-wide employee Climate Series. The five "Climate Conversations" focused on increasing HUD's employee knowledge of key elements of the climate portfolio and HUD's role in advancing a climate-resilient nation covering topics such as energy and carbon reduction, disaster recovery, sustainability at the HUD Headquarters building, and other cross-cutting topics. "Climate Conversations" will continue in 2024 with five additional training and capacity-building sessions being planned.

The Office of General Counsel (OGC) conducted a series of Lunch and Learns on Climate and Environmental Justice. Between 140 and 170 OGC staff attended each webinar. Topics included Environmental Justice: Its History and HUD's Role; HUD's Climate Action Plan and Justice40 Initiatives (with a focus on the Office of Lead Hazard Control and Healthy Homes); Climate-Related Threats Faced by Our Nation's Indigenous Communities Environmental Justice at HUD: Finding, Remedying, and Preventing the Impacts of Environmental Stressors; Building Flood-Resilient Communities; and Environmental Justice and Title VI. OGC offered this series in part to engage OGC staff and to help staff in different parts of OGC connect with HUD's larger climate and environmental justice goals. The series will continue in 2024.

The Office of Public and Indian Housing created the opportunity for Field Office Directors to learn more about energy efficiency financing, renewable technology, and other available resources through a lunch and learn group where information was shared to help support public housing authorities in reducing energy usage and improving climate resilience.

The Office of Policy Development and Research organized monthly sessions as part of its Knowledge Collaborative on Disaster Recovery and Risk Reduction, hosting external researchers and internal HUD staff to present their work in the disaster recovery or risk reduction space.

3D. SUMMARY FOR MAJOR MILESTONES

Section of the Implementation Plan	Description of Milestone	Climate Risk Addressed	Indicators for success
Section 3A Part 1 *Addressing Climate Hazard Exposures and Impacts Affecting Federal Buildings*	*Collaborate with GSA to support climate readiness and net-zero emissions initiatives for government and private-leased facilities.*	*Sea level rise* *Extreme heat* *Extreme precipitation* *Wildfire risk*	*HUD has a sustained relationship with GSA that convenes regularly.* *New initiatives are developed to support the resilience of GSA leases under HUD's purview. FY24/25: Collaborate with GSA to identify key account managers responsible for resilience within HUD's portfolio.*
Section 3A Part 1 *Addressing Climate Hazard Exposures and Impacts Affecting Federal Buildings*	*Utilize ESPC to perform retrofits and improvements at the Robert C. Weaver Building.*	*Extreme Heat*	*FY24/25: Complete the following Energy Conservation Measures (ECMs):* *Replace main chillers at the Weaver Building, which will increase system reliability and reduce risk of cooling loss at critical times.* *Perform LED lighting retrofit to entire Weaver Building, which will reduce energy and reduce cooling load.*

Section 3A Part 1 *Addressing Climate Hazard Exposures and Impacts Affecting Federal Buildings*	*Collaborate with the GSA to replace all the main Air Handling Units (AHUs) at the Weaver Building.*	*Extreme heat*	*Complete study and design FY24* *Construction expected to start FY25.*
Section 3A Part 2 *Evaluate workforce risks related to occupational hazards*	*Collaborate with GSA on opportunities to advance climate readiness for employees.*	*Sea level rise* *Extreme heat* *Extreme precipitation* *Wildfire risk*	*FY24: Work with GSA to identify opportunities to protect occupants, reduce risks and ensure safety from potential climate hazards in HUD leased space.*
Section 3A Part 2 *Evaluate workforce risks related to occupational hazards*	*Evaluate workforce risks related to occupational hazards.*	*Sea level rise* *Extreme heat* *Extreme precipitation* *Wildfire risk*	*FY24/25: Develop strategies to reduce employee risks associated with occupational exposures.* *FY24: Create a campaign to increase employee awareness of hazards and exposure risks.* *FY24/25: Evaluate occupational health and safety policy for opportunities to mitigate climate risk and adopt and implement effective opportunities.*
Section 3B Part 2 *Incorporating Climate Risk Assessment into Budget Planning*	*Incorporate climate risk into budget planning for programs and services.*	*Sea level rise* *Extreme heat* *Extreme precipitation* *Wildfire risk*	*Enhance knowledge through research and expand data use to evaluate and protect portfolio from climate risk,*

			such as through integrating National Risk Index data in programs and policies and advancing research through the USGCRP.
3B Part 3 *Incorporating Climate Risk into Policy and Programs*	*Advance climate adaptation and resilience in policies and programs.*	*Sea level rise* *Extreme heat* *Extreme precipitation* *Wildfire risk*	*Increase the number and percentage of goals completed under HUD's Climate Action Plan to increase climate resilience.* *Enhance the application of program funds toward adaptation and resilience building.* *Advance incentives and requirements for adopting green building codes and energy standards across the HUD portfolio.* *Deliver adaptation funding through GRRP, CDBG (CDBG-DR and CDBG-MIT), and other climate- and energy-focused programs.* *Ensure equitable access to resources through creating toolkits and services and*

			improving user experience through updates, such as to the HUD Exchange website.
3B Part 3 *Incorporating Climate Risk into Policy and Programs*	*Advance use of nature-based solutions (NBS) to address climate risks for more sustainable planning, design, and management.*	*Sea level rise* *Extreme heat* *Extreme precipitation* *Wildfire risk*	*Expand the percentage of programs and policies that include guidelines and requirements for considering NBS, when viable.* *Encourage awareness of NBS among staff and grantees through training and tools.*
3B Part 3 *Incorporating Climate Risk into Policy and Programs*	*Center environmental justice to support the resilience of disadvantaged communities that are marginalized by underinvestment and overburdened by pollution.*	*Sea level rise* *Extreme heat* *Extreme precipitation* *Wildfire risk*	*Increase the number and percentage of goals completed under HUD's Climate Action Plan to promote environmental justice.*
3B Part 3 *Incorporating Climate Risk into Policy and Programs*	*Bolster the opportunities for collecting Tribal input to meaningfully adapt programs and policies to better meet needs and priorities.*	*Sea level rise* *Extreme heat* *Extreme precipitation* *Wildfire risk*	*Ensure adaptation and environmentally focused policies and programs include and incorporate Tribal feedback.*
3B Part 3 *Incorporating Climate Risk into Policy and Programs*	*Advance sustainable communities through investing in climate resilience and carbon reduction strategies.*	*Sea level rise* *Extreme heat* *Extreme precipitation* *Wildfire risk*	*Increase the number and percentage of goals completed under HUD's Climate Action Plan to*

			increase energy efficiency.
3B Part 5 *Climate Informed Funding to External Parties*	*Maintain, improve, and create opportunities to fund resilience through HUD programs and policies.*	*Sea level rise* *Extreme heat* *Extreme precipitation* *Wildfire risk*	*Deploy funds through various programs, including CDBG, CDBG-DR, CDBG-MIT, and GRRP, and strengthen climate considerations in other programs, including Choice Neighborhoods, Section 108, Rental Assistance Demonstration Program, Section 202, and more.*
3C *Climate Training and Capacity Building for a Climate Informed Workforce*	*Foster a climate ready and climate informed workforce.*	*Sea level rise* *Extreme heat* *Extreme precipitation* *Wildfire risk*	*Increase the number of Federal staff that have participated in climate training courses, lunch and learns, and climate conversations. Offer Climate 101 to HUD staff during FY24.*

SECTION 4: DEMONSTRATING PROGRESS

4A. Measuring progress

*The metrics below include yes/no/partially questions to establish the Agency's current efforts, as well as process metrics to show how climate adaptation is being integrated across planning and budgeting efforts. These metrics provide a consistent set of information across the Federal government and feed into outcome metrics addressing the **climate resilience and adaptive capacity** of the Federal government to climate hazards in 2050 and 2080 based on RCP4.5 and RCP8.5.*

Key Performance Indicator: Climate adaptation and resilience objectives and performance measures are incorporated in planning and budgeting of agency programs by 2027.		
Section of the CAP	**Process Metric**	**Agency Response**
3A – Addressing Climate Hazard Impacts and Exposure	Step 1: Agency has an implementation plan for 2024 that connects climate hazard impacts and exposures to discrete actions that must be taken. (Y/N/Partially) Step 2: Agency has a list of discrete actions that will be taken through 2027 as part of their implementation plan. (Y/N/Partially)	Partially for both Steps 1 and 2. There are planned actions in place for HUD's Weaver Building. All other buildings are leases that will require HUD to coordinate hazard assessment and planned actions with the GSA, which owns and manages the buildings.
3B.1 – Accounting for Climate Risk in Decision-making	Agency has an established method of including results of climate hazard risk exposure assessments into planning and decision-making processes. (Y/N/Partially)	No. HUD's building portfolio is comprised of fully serviced GSA leases. HUD will work with GSA to better assess risk exposure for its locations and consider mitigation strategies accordingly.
3B.2 – Incorporating Climate Risk Assessment into Budget Planning	Agency has an agency-wide process and/or tools that incorporate climate risk into planning and budget decisions. (Y/N/Partially)	Yes. During the budget formulation process, HUD issues guidance to all program offices requesting their budget submissions include proposals that

		consider or address climate risk. The Department's Annual Strategic Plan incorporates climate risk into planning and budget decisions.
3B.5 – Climate Informed Funding to External Parties	Step 1: By July 2025, Agency will identify grants that can include consideration and/or evaluation of climate risk. Step 2: Agency modernizes all applicable funding announcements/grants to include a requirement for the grantee to consider climate hazard exposures. (Y/N/Partially)	Partially for both Steps 1 and 2. HUD has finalized Climate Preference Guidance for NOFOs. HUD will continue to apply its NOFO template and incorporate evaluation of climate risk across programs and funding opportunities.
Key Performance Indicator: Data management systems and analytical tools are updated to incorporate relevant climate change information by 2027.		
Section of the CAP	**Process Metric**	**Agency Response**
3A – Addressing Climate Hazard Impacts and Exposure	Agency has identified the information systems that need to incorporate climate change data and information and will incorporate climate change information into those systems by 2027. (Y/N/Partially)	No. HUD will coordinate with its Office of the Chief Information Officer (OCIO) and Office of the Chief Data Officer to determine by 2025 if there are any internal systems that will require the incorporation of climate change data.
Key Performance Indicator: Agency CAPs address multiple climate hazard impacts and other stressors, and demonstrate nature-based solutions, equitable approaches, and mitigation co-benefits to adaptation and resilience objectives.		
Section of the CAP	**Process Metric**	**Agency Response**
3B.3 – Incorporating Climate Risk	By July 2025, 100% of climate adaptation and resilience policies have been reviewed and revised to (as	Partially. HUD has finalized Climate Preference Guidance for NOFOs. HUD will continue

into Policy and Programs	relevant) incorporate nature-based solutions, mitigation co-benefits, and equity principles. (Y/N/Partially)	to apply its NOFO template and incorporate evaluation of climate risk across programs and funding opportunities.
Key Performance Indicator: Federal assets and supply chains are evaluated for risk to climate hazards and other stressors through existing protocols and/or the development of new protocols; response protocols for extreme events are updated by 2027.		
Section of the CAP	**Process Metric**	**Agency Response**
3B.4 – Climate-Smart Supply Chains and Procurement	Step 1: Agency has assessed climate exposure to its top five most mission-critical supply chains. (Y/N/Partially) Step 2: By July 2026, the Agency has assessed services and established a plan for addressing/overcoming disruption from climate hazards. (Y/N/Partially)	Partially for Steps 1 & 2. HUD is in the process of implementing a Supply Chain Risk Management (SCRM) Program that will include the assessment of climate hazard risk to critical supplies and services. SCRM Program is scheduled to be fully implemented FY 2025 2nd quarter.
	Agency has identified priorities, developed strategies, and established goals based on the assessment of climate hazard risks to critical supplies and services. (Y/N/Partially)	Partially. In the Climate-Smart Supply Chains and Procurement space, the Civilian Agency Acquisition Council has Federal Acquisition Regulation (FAR) Case 2022-006, Sustainable Procurement in the final rule stage of development, after the proposed rule was available for comment. The FAR Case focuses on current environmental and sustainability matters and implements a requirement for agencies to procure sustainable products and services to the maximum extent practicable, in alignment

		with Executive Order 14057, Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability, OMB Memorandum M-22-06, and the Council on Environmental Quality Implementing Instructions. Once the rule is finalized, it will be incorporated into the procurement process and the SCRM Program.
Key Performance Indicator: By 2027, agency staff are trained in climate adaptation and resilience and related agency protocols and procedures.		
Section of the CAP	**Process Metric**	**Agency Response**
3C – Climate Training and Capacity Building for a Climate Informed Workforce	Step 1: By December 2024 100% of agency leadership have been briefed on current agency climate adaptation efforts and actions outlined in their 2024 CAP. (Y/N/Partially) Step 2: Does the agency have a Climate 101 training for your workforce? (Y/N/Partially) If yes, what percent of staff have completed the training? Step 3: By July 2025, 100 % employees have completed climate 101 trainings. (Y/N/Partially)	Yes for Step 1. By December 2024, HUD will hold a full leadership briefing on current agency climate adaptation efforts and actions outlined in the 2024 CAP. No for both Steps 2 and 3. In 2024, HUD will explore opportunities to expand access to a Climate 101 training for staff to strengthen climate literacy.

4B. Adaptation in Action

HUD, since its initial 2021 Climate Adaptation Plan, has advanced its goals to (1) update climate risk data and research; (2) enhance mortgage financing; (3) strengthen disaster recovery and resilience; and (4) expand capacity building.

HUD is supporting research and data procurement to assess climate risk within its portfolio. In December 2023, the Department joined the United States Global Change Research Program (USGCRP) to guide and contribute to the federal government's scientific research. Joining USGCRP helps to ensure that the data and products developed can be accessed by and used to support the people and communities that HUD serves. It also is a step to help address challenges the Department has faced in reviewing and addressing the need for building-level, or downscaled data. HUD's working group on climate services focuses on these issues and is working to improve documentation and identify opportunities for filling data gaps. HUD is incorporating FEMA's National Risk Index (NRI) data into its Funding Navigator to assist HUD grantees or assisted property owners in assessing exposure to natural hazards while connecting to funding opportunities to build resilience to these hazards.

The Department is working to enhance mortgage financing to enable capital to fund the purchase, refinance, construction, and rehabilitation of single- and multi-family housing, assisted housing, and healthcare facilities around the country. Ginnie Mae, for instance, has expanded its low-to-moderate income (LMI) disclosure initiative to enhance environmental, social, and governance (ESG) disclosures. This initiative provides market participants with tools and data to concentrate their investments and to discern the social impact of their investment decisions in disadvantaged communities. HUD has also worked to reduce Mortgage Insurance Premiums (MIP) to incentivize property owners to adopt higher building standards.

HUD is strengthening programs to promote disaster recovery and resilience. For example, the Department updated CDBG-DR requirements and released coordinating tools to support grantees in proactively planning for future climate risk. The Department, alongside DOE and DHS, launched a joint effort with Puerto Rico to strengthen the island's grid resilience and advance new initiatives to enhance Puerto Rico's energy future. Additionally, on April 23rd, HUD updated the **Federal Flood Risk Management Standard (FFRMS)**, 24 CFR part 55, a final rule ensuring that federally funded construction projects are built to withstand current and future flood risks.

The Department is expanding capacity-building opportunities to ensure programs reach grantees in an accessible and equitable manner. As detailed in above, the Department has launched various tools and guidance on its HUD Exchange Build for the Future website. Through deploying technical assistance opportunities and planning regional convenings, the Department is working to reach LMI and disadvantaged communities to amplify their capacities for leveraging HUD's available funding sources.

HUD is continuing to reach goals set out in its 2021 Climate Action Plan and to set new ones, recognizing climate adaptation as central to HUD's mission to build resilient, sustainable, and inclusive communities across the nation.

Appendix A: Risk Assessment Data

The Federal Mapping App uses the following data:

Buildings

Buildings data comes from the publicly available Federal Real Property Profile (FRPP). The General Services Administration (GSA) maintains FRPP data and federal agencies are responsible for submitting detailed asset-level data to GSA on an annual basis. Although FRPP data is limited—for example, not all agencies submit complete asset-level data to GSA, building locations are denoted by a single point and do not represent the entirety of a structure or could represent multiple structures, and properties may be excluded on the basis of national security determinations— it is the best available public dataset for federal real property. Despite these limitations, this data is sufficient for screening-level exposure assessments to provide a sense of potential exposure of federal buildings to climate hazards.

Personnel

Personnel data comes from the Office of Personnel Management's (OPM) non-public dataset of all personnel employed by the federal government that was provided in 2023. The data contains a number of adjustments, including exclusion of military or intelligence agency personnel, aggregation of personnel data to the county level, and suppression of personnel data for duty stations of less than 5 personnel. Despite these adjustments, this data is still useful for screening-level exposure assessments to provide a sense of key areas of climate hazard exposure for agency personnel.

Climate Hazards

The climate data used in the risk assessment comes from the data in Climate Mapping for Resilience and Adaptation (CMRA) Assessment Tool. When agency climate adaptation plans were initiated in 2023, CMRA data included climate data prepared for NCA4. Additional details on this data can be found on the CMRA Assessment Tool Data Sources page. Due to limited data availability, exposure analyses using the Federal Mapping App are largely limited to the contiguous United States (CONUS). Additional information regarding Alaska, Hawai‘i, U.S. Territories, and marine environments has been included as available.