Department of Homeland Security

Fiscal Years 2024-2027 Climate Adaptation Plan

Approach to Addressing Climate Hazard Impacts and Exposure

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Section 1: Agency Profile

Agency Profile	
Mission	With honor and integrity, the Department of Homeland Security ("Department" or "DHS") safeguards the American people, our homeland, and our values. DHS has a vital mission to secure the Nation from the many threats we face. This requires the hard work of more than 260,000 employees in jobs that range from aviation and border security to emergency response, from cybersecurity analyst to chemical facility inspector. Our duties are wide-ranging, and our goal is clear--keeping America safe.
Adaptation Plan Scope	This Climate Adaptation Plan (CAP) includes all DHS Headquarters (HQ) offices and operational and support Components: U.S. Citizenship and Immigration Services (USCIS) U.S. Coast Guard (USCG) U.S. Customs and Border Protection (CBP) Cybersecurity and Infrastructure Security Agency (CISA) Federal Emergency Management Agency (FEMA) Federal Law Enforcement Training Centers (FLETC) U.S. Immigration and Customs Enforcement (ICE) U.S. Secret Service (USSS) Transportation Security Administration (TSA) Management Directorate (MGMT) Science and Technology Directorate (S&T) Countering Weapons of Mass Destruction Office (CWMD)
Agency Climate Adaptation Official	Randolph D. "Tex" Alles, Deputy Under Secretary for Management
Agency Risk Officer	Rich McComb, Chief Security Officer, Office of the Chief Security Officer
Point of Public Contact for Environmental Justice	Joint contacts: Office for Civil Rights and Civil Liberties Victoria Porto, CRCL Executive Director of Programs Jessica Specht, Policy Advisor for Environmental Justice Office of the Chief Readiness Support Officer Jennifer Hass, Director, Environmental Planning and Historic Preservation Sarah Koeppel, Senior Environmental Protection Specialist

Owned Buildings	The DHS real property portfolio consists of more than 52,000 individual property records and is comprised of buildings, structures, and land assets. The DHS footprint spans every state and jurisdiction in the United States, as well as five territories and 18 countries throughout the world. The real property portfolio includes a total of 108+ million square feet of building inventory and comprises 60 percent leased vs. 40 percent owned property. Number of owned buildings: 7,948 Total Square Footage (TSF): 43,748,549.93 *(DHS Real Property Capital Plan [RPCP], Fiscal Years [FY] 2025-2029; Real Property Data Warehouse (RPDW) Lease Equivalents (ONEVIEW) FY 2023 Q4)*
Leased Buildings	Approximately 60 percent of DHS real property is leased via occupancy agreements with other federal agencies, such as the General Services Administration (GSA), or directly commercial. DHS Lease = 17,549,444 TSF GSA Lease = 30,465,361 TSF GSA Owned = 16,517,963 TSF Other = 63,798 TSF Number of leased real property assets: 10,353 Rentable square footage: 64,596,566 Number of leased buildings analyzed: 818 Rentable square footage analyzed: 7,379,772.13 *(DHS RPCP, FY2025-2029; RPDW Lease Equivalents (ONEVIEW) FY 2023 Q4)*
Employees	Number of federal employees: 269,740 Number of contractors: 26,878 *(DHS Personnel by Duty Station (ONEVIEW) FY 2023; RPDW (ONEVIEW) FY 2023Q4)*
Federal Lands and Waters	86,076 acres managed *(DHS RPCP, FY 2025-2029)*
Budget	$52.92B, FY 2022 Enacted $82.07B, FY 2023 Enacted $121.57B, FY 2024 Enacted $64.81B, FY 2025 President's Budget
Key Areas of Climate	1. Incorporate Climate Adaptation Planning and Processes in Homeland Security 2. Ensure Climate Resilient Facilities and Infrastructure 3. Incorporate Climate Adaptation into National Preparedness

Adaptation Effort	4. Ensure Climate-ready Services and Supplies 5. Increase Climate Literacy

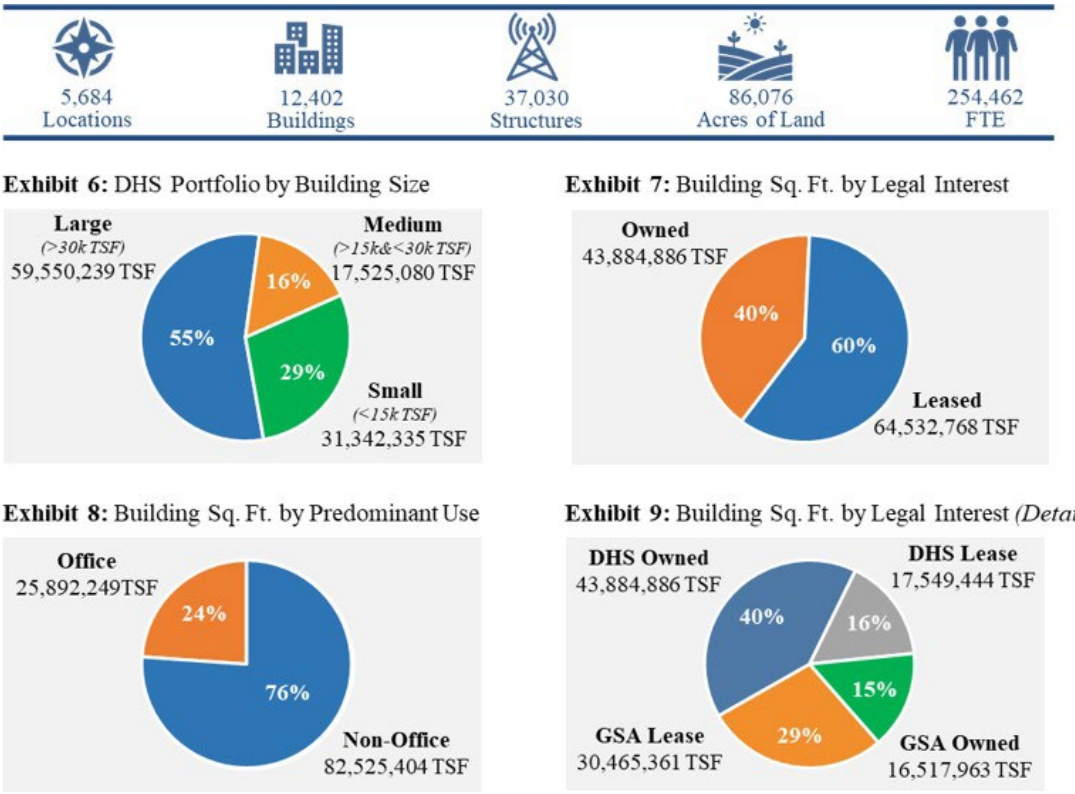

Figure 1. DHS Building Asset and Personnel Count.

The Department's mission is to safeguard the American people, our homeland, and our values. DHS carries out that mission through its diverse operational and support Components. This report reflects data on all DHS employees and DHS 'owned' real property, which includes our operational Components, USCG, CBP, FEMA, FLETC, ICE, USSS, and TSA.

The Department is committed to establishing adaptation strategies and increasing resilience today so we will be better able to meet the challenges of a changing climate tomorrow while continuing to meet mission requirements.

DHS prepared the FY 2021 CAP pursuant to Section 211 of Executive Order (EO) 14008, *Tackling the Climate Crisis at Home and Abroad*, and the Council on Environmental Quality's (CEQ) Implementing Instructions. This CAP focused on climate adaptation, resilience, and mitigation measures and initiatives for both internal and external mission activities across agency programs. The FY 2021 CAP aligned and built upon the previous DHS CAPs prepared in FY 2012 and FY 2013, the FY 2012 DHS Climate Change Adaptation Roadmap, the FY 2018 Resilience Framework, the FY 2021-2025 EJ Strategy, and the annual Sustainability Report and Implementation Plan.

Through its CAP, DHS is able to advance environmental justice as part of its mission, consistent with EO 14008 and EO 14096, *Revitalizing Our Nation's Commitment to Environmental Justice for All*. As DHS increases the resilience of its facilities and operations, DHS will also address disproportionate and adverse environmental and health effects (including risks) and hazards. These risks will include those related to climate change and the cumulative impacts of environmental and other burdens on communities with environmental justice concerns. By considering these impacts on communities, DHS can provide opportunities for the meaningful engagement of persons and communities with environmental justice concerns.

In addition, as a member of the White House Environmental Justice Interagency Council (WHEJAC), DHS received recommendations on Climate Planning, Preparedness, Response, Recovery and Impacts from the White House Environmental Justice Advisory Council. The report includes many recommendations that are relevant to the Department's work. DHS is reviewing the recommendations and, as appropriate and to the maximum extent permitted by law, taking steps to address the WHEJAC's recommendations.

Under the direction of the Climate Change Action Group (CCAG), which includes senior leadership from across the Department, DHS released its Strategic Framework for Addressing the Impacts of Climate Change. This framework provides overarching goals, principles, and strategic vision to guide our activities to assess and mitigate the full range of climate change impacts across the homeland security mission and execute other responsibilities assigned in EO 14008.

The FY 2024-2027 CAP analyzes the impacts to critical infrastructure and resilience (priority 2 of the FY 2021 CAP) and how climate hazards will affect our mission areas.

Section 2: Risk Assessment

The DHS Office of the Chief Readiness Support Officer (OCRSO), within the Management Directorate (MGMT), maintains the Consolidated Asset Portfolio and Sustainability Information System (CAPSIS). CAPSIS is the Department's authoritative source for real property data and building locations. DHS developed a climate mapping layer from National Oceanic and Atmospheric Administration (NOAA) data to conduct a high-level screening of climate hazard exposure for federal facilities and personnel. CAPSIS provides a Geographic Information System interface that allows for inclusion of the Representative Concentration Pathways (RCP) scenarios used in the Fourth National Climate Assessment (NCA). DHS 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 NCA4.	RCP 4.5 RCP 8.5	Continental United States (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 NCA4.	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 (USFS) Wildfire Risk to Potential Structures (a data product of Wildfire	Historical	All 50 States

Hazard	Description	Scenario	Geographic Coverage
	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.		
Flooding	Measured as whether an asset is located within a 100-year floodplain (1 percent annual chance of flooding) or 500-year floodplain (0.2 percent annual chance of flooding), as mapped by the FEMA 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, 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 Fifth National Climate Assessment
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 percent less than the year 2000. Mitigation efforts include expanded renewable energy compared to 2000.

Additional details about the data used in this assessment are provided in Appendix A.

2A. Climate Hazard Exposures and Impacts Affecting Federal Buildings

Indicators of Exposure of Buildings to Climate Hazards	RCP 4.5 2050	RCP 4.5 2080	RCP 8.5 2050	RCP 8.5 2080
Extreme Heat: Percent of buildings projected to be exposed to more days with temperatures exceeding the 99th percentile of daily maximum	100%	100%	100%	100%

Indicators of Exposure of Buildings to Climate Hazards	RCP 4.5 2050	RCP 4.5 2080	RCP 8.5 2050	RCP 8.5 2080
temperatures (calculated annually) from 1976-2005				
Extreme Precipitation: Percent of buildings projected to be exposed to more days with precipitation amounts exceeding the 99th percentile of daily maximum precipitation amount (calculated annually) from 1976-2005	100%	100%	100%	97%
Sea Level Rise: Percent of buildings projected to be inundated by sea level rise	1%	3%	1%	6%

	High Risk	Very High Risk	Extreme Risk
Wildfire: Percent of buildings at highest risk to wildfire	4%	1%	1%

	100 or 500- Year Floodplain
Flooding: Percent of buildings located within floodplains	18%

Future extreme heat poses a serious risk and hazard to DHS buildings. DHS buildings are located throughout the United States with large portions along the Southern border, Gulf coast, and Eastern coast. These regions are particularly at risk of experiencing their hottest days of the year increasing in number of days and maximum temperature. As shown for both climate scenarios at mid- (2050) and late century (2080), 100 percent of DHS's buildings will be exposed to hotter temperatures. The implication for DHS buildings is on design, energy usage, cooling, and impacts on occupants and surrounding communities. Extreme heat events can lead to brownouts or power loss, which can lead to mission degradation. Buildings' cooling systems can also fail to keep mission critical systems cool during extreme events, such as server rooms and telecommunication rooms. Areas with large congregations of people, such as training facilities or conference rooms, will also need to account for increases in cooling demand for occupants.

Increased precipitation and the increase of days of precipitation are expected across DHS's entire building portfolio in all climate regions and in all scenarios with greatest impact in regions of Pacific Northwest, Northeast, and Alaska. Deferred maintenance (and/or poor design) allows for moisture penetration which leads to a degradation of materials, structure, or mold growth. The impact of DHS deferred maintenance and the increase of precipitation across many regions may

increase the interior flooding, which then becomes a risk for disrupting the mission and operations occurring within a designated building space.

Sea level rise poses a minor risk to DHS buildings in both climate scenarios in the mid- and late century. The sea level rise hazard analysis DHS performed looked at a granularity for DHS buildings within 0.75-meter resolution. At this resolution, DHS buildings have 1% and 1% exposure in the RCP 4.5 mid- and late century scenarios, respectively, and 3% and 6% exposure in the RCP 8.5 mid- and late century scenarios, respectively. While greater than 50 percent of DHS buildings are located near coastal areas, sea level rise poses minimal risk to the entire building portfolio. The regions with the greatest risk are the Gulf coast and Florida coast, particularly in the New Orleans area.

Eighteen percent of DHS buildings are within a 100 or 500-year floodplain. These risks must be addressed at the sites where this poses a threat; however, flooding is not a major concern across the entire DHS portfolio. Similarly, wildfire risk to DHS buildings is low with high risk at four percent of buildings and very high and extreme risks at 1 percent each.

In Section 3: Implementation Plan, DHS will address how it is approaching the increased risk associated with climate change. Climate change impacts on DHS buildings will require DHS to adapt, rather than relocate its mission assets due to their strategic locations and mission objectives. DHS is already responding to these changes by adapting policies, procurement strategies, and design and construction guidelines to address these risks.

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	100%	100%	100%	100%
Extreme Precipitation: Percent of employees duty-stationed in counties projected to be exposed to more days with precipitation amounts exceeding the 99th percentile of daily maximum precipitation amount (calculated annually) from 1976-2005	100%	100%	100%	96%
Sea Level Rise: Percent of employees duty stationed in counties projected to be inundated by sea level rise	57%	57%	57%	57%

	High Risk	Very High Risk	Extreme Risk
Wildfire: Percent of employees duty-stationed in counties at highest risk to wildfire	17%	7%	5%

In all scenarios modeled, 100 percent of employees will experience an increase in the number of extreme heat days. This will affect those DHS personnel that work in outdoor environments such as law enforcement, search and rescue operations, and patrol agents. Mission activities that are required outdoors may require advanced warnings for extreme heat scenarios to protect personnel, additional safety training for extreme heat, and frequent reminders to employees. Exposure to extreme heat will become a more common occurrence and will be included in adaptation plans. Nearly 100 percent of employees will also experience an increase in the number of extreme precipitation days. DHS personnel take on risks with their job descriptions and missions every day. DHS will continue to execute its mission by adapting to these conditions in addition to current risks.

Sea level rise scenarios for personnel were measured at the county-level duty station, where any inundation from sea level rise would equate to a risk and exposure. DHS has more than half of its personnel duty stations located in a county that will experience sea level rise. The severity of the sea level rise within the inundated counties will be further explored to understand the risk to personnel.

Wildfire risk for personnel across the three categories that were measured, high, very high, and extreme are 17, 7, and 5 percent, respectively.

The Department recognizes the level of risk to its personnel and the need for people and employees to be safe to properly execute the mission. Department missions include the protection of the U.S. Homeland, safety of its citizens, and response to hazards. DHS must adapt to climate change to provide proper response and services to the Nation. In Section 3: Implementation Plan, DHS is prioritizing its personnel through additional training, policies, and education.

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

SUMMARY OF KEY CURRENT AND PROJECTED CLIMATE HAZARD IMPACTS AND EXPOSURES		
Area of Impact or Exposure	**Identified Climate Hazard**	**Description**
Counter Terrorism and Homeland Security Threats	Extreme Heat, Extreme Precipitation, Flooding	One of DHS's highest priorities is to protect the Homeland and Americans from security threats and terrorism. Climate change stressors increase risk and exposure to federal law enforcement officers in executing their duties through environmental impacts, disruptions, and operational capabilities, i.e., more difficult environments to work in.
Secure U.S. Borders and Enforcing U.S. Immigrations Law	Extreme Heat, Extreme Precipitation	DHS ensures the safety and security of U.S. borders while managing its immigration systems and laws. Extreme heat and precipitation will impact both field work in protecting the border and orderliness of our immigration systems. DHS secures both the northern and southern border which encounter separate stressors from climate risk such as increased heat vs. increase cold, and decreased precipitation vs. melting sea ice. As migration patterns change DHS will adapt to the increase or change of migration patterns based on mission need and climate related impacts.

SUMMARY OF KEY CURRENT AND PROJECTED CLIMATE HAZARD IMPACTS AND EXPOSURES		
Area of Impact or Exposure	**Identified Climate Hazard**	**Description**
Strengthen the Security and Resilience of Critical Infrastructure	Extreme Heat, Extreme Precipitation, Flooding, Wildfire	Critical infrastructure services provide the backbone of the U.S. national and economic security. To protect our public and private networks, cybersecurity risks must be continually monitored. Extreme heat, precipitation, flooding, and wildfire pose a risk to disrupting our capabilities and increasing our critical infrastructure risk.
Enforce U.S. Trade Laws and Facilitate Lawful International Trade and Travel	Extreme Heat, Extreme Precipitation, Sea Level Rise, Flooding	Complex globalized markets, international trade, and worldwide supply chains are an important driver of U.S. commerce. DHS is enhancing its trade enforcement, security, and facilitation capabilities to enable legitimate trade, contribute to American economic prosperity, and protect against risks to public health and safety. Extreme heat, precipitation, flooding, and wildfires pose a risk to DHS's capabilities for this mission by increasing interruptions in mission-related supply chain, disrupting mission-related travel, and impact to trading partners.

SUMMARY OF KEY CURRENT AND PROJECTED CLIMATE HAZARD IMPACTS AND EXPOSURES		
Area of Impact or Exposure	**Identified Climate Hazard**	**Description**
Safeguard the U.S. Transportation Systems	Extreme heat, Extreme precipitation, Flooding	The robust U.S. transportation system supports the U.S. economy and way of life. Secure, safe, and seamless travel includes secure transportation hubs as well as pipelines. Extreme heat, precipitation, and flooding pose a risk to disrupting DHS's capabilities for this mission by changing travel patterns, impacting supply chains, and increasing disruptive storms and events.
Maintaining U.S. Waterways and Maritime Resources	Extreme heat, Extreme precipitation, Sea level rise	Accessibility and vitality of U.S waterways and marine ecosystems enable economic activities across the United States. Extreme heat, precipitation, and sea level rise impact maritime communities, accessibility to waterways, and the ecosystems themselves. Maritime resources will be impacted by melting sea ice and rising sea levels, especially near the Arctic.

SUMMARY OF KEY CURRENT AND PROJECTED CLIMATE HAZARD IMPACTS AND EXPOSURES		
Area of Impact or Exposure	**Identified Climate Hazard**	**Description**
Build a National Culture of Preparedness and Respond During Incidents	Extreme heat, Extreme precipitation, Sea level rise, Flooding, Wildfire	Disaster declarations and recovery costs are increasing. Local communities require resources to improve their preparedness and resilience. Communities impacted by incidents require guidance, tools, equipment, and resources to deliver necessary aid and relief to Americans in their time of need. Climate change hazards are already showing impacts to communities and DHS's ability to respond. Increased risk from all climate hazards must be integrated into DHS's guidance and responses to communities.
Train and Exercise First Responders and Law Enforcement Officers	Extreme Heat, Extreme Precipitation, Flooding	First responders, emergency management, and law enforcement officers require training and resources to respond, react, and uphold our laws and values. Extreme heat, precipitation, and flooding pose a risk to DHS's ability to impart skills, training, and resources for a successful workforce.

DHS missions, operations, and services involve a level of risk to properly execute and maintain the security of the Nation. The amount of risk tolerance varies based on mission space. Known and unknown risks and hazards are incorporated into the planning, training, and policies of the Department. Understanding climate risks and the amount of exposure to personnel and assets will assist the Department in adaptation, mitigation, and mission resilience. DHS cannot abdicate its duties by way of abandoning strategic locations or eliminating personnel from regions that are forecasted to incur high climate risk. The Department is committed to adapting its missions to ensure it is prepared for all conditions, hazards, and threats.

As demonstrated through the above tables, climate hazards such as extreme heat, precipitation, sea level rise, flooding, and wildfire hazards pose a risk to the United States and DHS's mission

to protect and serve the Homeland. As outdoor working conditions become more extreme, DHS personnel must have the resources and training to adapt to these new conditions. Migration patterns due to extreme conditions will also impact the DHS mission by adding new stressors for response.

Sea level rise and flooding can have drastic impacts on missions, particularly infrastructure. With more than half of all DHS buildings and personnel located in areas near large bodies of water, the impacts of sea level rise and flooding will be ever present in the Department's missions. DHS's responses to incidents are also likely to be impacted by climactic events and changing conditions, thus increasing DHS's need for adaptation, preparation, response, and mitigation. For example, external mission sets, such as FEMA response operations, will become more frequent due to increase in extreme weather events that affect communities.

2D. Impacts from and Exposure to Additional Hazards

The Department recognizes additional hazards may impact buildings, assets, personnel, and missions, and as such, implements an all-hazards approach for adaptation and resilience. Extreme weather in the form of hurricanes poses a significant risk along the eastern seaboard. Along the west coast, seismic activity is actively monitored and included in emergency management plans. DHS plans for and modifies procedures in operations to support the mission at hand to keep the Nation secure. This may be affected by increase in heat and drought, which lead to decreased water flow in areas such as the Rio Grande or impacts to shorelines and coastal waters. These impacts are more prevalent to our patrol agents and the USCG.

Section 3: Implementation Plan

DHS is comprised of Components with widely varying missions and facility footprints. Considering this, detailed planning and execution of climate adaptation activities occur at the Component level under general DHS oversight. Climate adaptation activities are part of the Department's broader efforts to increase the resilience of its facilities and operations. In addition to these "inward facing" efforts, DHS also has significant responsibilities to help support the resilience of the Nation as a whole. DHS Components with significant "outward facing" missions, such as FEMA and CISA, are updating relevant policies and programs to better help communities adapt to climate change and climate change stressors. The FEMA Building Resilient Infrastructure and Communities (BRIC) program supports states, local communities, tribes, and territories as they undertake hazard mitigation projects, reducing the risks they face from disasters and natural hazards. CISA's publication of the National Critical Functions (NCF) identifies vital government functions to maintain the safety of our Nation. CISA's National Risk Management Center brings public and private stakeholders to identify, analyze, prioritize, and manage the most significant risks to these important functions.

Climate adaptation efforts within DHS are guided by both the DHS Framework for Addressing Climate Change (2021 October), "Framework," and the DHS CAP (2021 September). The Framework summarizes the strategic ends towards which these efforts aim, the guiding principles that describe how these ends will be pursued, and five Lines of Effort (LoE) through which the strategic ends will be achieved. The LoE, implemented through the lens of the guiding principles, will enable DHS to safeguard the homeland from the immediate impacts of climate change, while pursuing long-term solutions that support resilient, prosperous communities and safeguard critical national security interests.

Strategic Ends for Addressing the Climate Change Challenge:

1. Safeguard the Homeland from current and projected climate change-driven disasters.
2. Inform Americans so that they can adapt to current and projected risks and increase national resilience.
3. Foster resilience, adaptation, and recovery efforts that reduce risk and harm from climate change and address associated disparities such as those based on race and income level, pursue environmental justice, and create opportunity for all Americans.
4. Enable a thriving economy that supports our national security and way of life.
5. Model sustainable resilience while remaining fully operational despite the impact of climate change on DHS personnel, assets, and facilities.

Guiding Principles:

1. Foresight – Incorporating climate science into DHS activities will enable us to prepare for a future that will differ dramatically from the past.
2. Unity of Effort – Cooperation and leadership across all levels of government and society will enhance streamlined efforts.

3. Innovation – Building and sustaining a culture that rewards the implementation of forward-leaning technology, policy, and planning will drive positive impact across the Department and the Nation.

Lines of Effort:

Throughout each LoE described below, the need to achieve equity will be a guiding principle:

1. Empower Individuals and Communities to Build Climate Resilience;
2. Build Readiness to Respond to Increases in Climate-Driven Emergencies;
3. Incorporate Foresight and Climate Science into Strategy, Policy, Programs, and Budgets;
4. Invest in a Sustainable and Resilient DHS; and
5. Develop a Climate Change-Informed DHS Workforce.

The CAP describes how the Department will adapt to a changing climate. This document identifies the five priority adaptation actions listed below:

1. Incorporate Climate Adaptation Planning and Processes in Homeland Security;
2. Ensure Climate Resilient Facilities and Infrastructure;
3. Incorporate Climate Adaptation into National Preparedness;
4. Ensure Climate-ready Services and Supplies; and
5. Increase Climate Literacy.

3A. Addressing Climate Hazard Exposures and Impacts Affecting Federal Buildings

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)**
Wildfire: Exposure of DHS facilities to wildfire risk is as follows: High risk – 4%; Very High risk – 1%; Extreme risk – 1%. Most impacted regions are the West, and to a lesser extent, Florida.	Further assessment of at-risk facilities to better assess the actual impact and determine potential mitigation measures. Vegetation management at impacted facilities. Incorporation of fire-resistant design features in new construction located within at-risk areas. Nature-based solutions (NBS) (prescribed burns,	Ongoing

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)**
	greenbelts, deadwood removal, etc.) As a last resort, relocate critical missions to another facility.	
Flooding: 13% of DHS facilities are within a 100-year floodplain. An additional 5% of DHS facilities are located within a 500-year floodplain.	Stormwater upgrades at impacted facilities. New facilities built outside of flood prone areas. NBS (vegetative swale, permeable pavement, wetland restoration, rainwater harvest, etc.)	Ongoing
Extreme Heat: Going forward, practically all DHS facilities will experience more days with temperatures exceeding the historical 99th percentile. The most impacted regions will be those that already experience extreme high temperatures such as the Southwest and Southeast. The Lower Midwest will also be significantly impacted. While this hazard will impact almost every Component to some degree, the most disproportionately impacted Component is CBP with its extensive facility footprint in the Southwest. At affected facilities the impacts will be most manifested by increased heating, ventilation, and air conditioning (HVAC) system use (for cooling) and the consequent increase in electricity demand which in some areas may strain the local grid.	HVAC upgrades to better meet increased cooling load. Building envelope upgrades (via deep retrofits) to decrease cooling load at existing facilities. New construction designed and built to high performance and the U.S. Green Building Council, Leadership in Energy and Environmental Design (LEED) standards to minimize cooling load from the beginning. Installation of on-site generation (backup diesel and/or renewable energy and storage) to meet some	Ongoing

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)**
	portion of the on-site consumption. Upgrades to local electrical distribution system to help meet overall increased electricity demand for cooling. Incorporate NBS into building envelope upgrades (green/blue roofs), surrounding landscape (urban trees), and neighboring impacted areas (urban parks, wind corridor, water body preservation etc.)	
Extreme Precipitation: Going forward, practically all DHS facilities will experience more extreme precipitation events than in the past.	Further assessment of at-risk facilities to better assess the actual impact and determine potential mitigation measures. Incorporate NBS into building envelope upgrades (green/blue roofs), surrounding landscape (bioswales, tree trench, raingarden), and neighboring impacted areas (stormwater park, wetland restoration etc.).	Ongoing
Sea Level Rise: The proportion of DHS facilities that are anticipated to be impacted by sea level ranges from 1% (RCP 4.5 2050) to 6% (RCP 8.5 2080). Sea level rise particularly impacts USCG facilities along the	Infrastructure upgrades (sea walls, etc., where feasible). In extreme circumstances, functions relocated to lower risk/impacted sites.	Ongoing

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)**
Gulf and East coasts (Regions IV and VI).	Incorporate NBS into building envelope upgrades, surrounding landscaping, and neighboring impacted areas (mangrove trees, oyster barrier reefs, coral restoration, dunes, living seawall or shoreline, coastal wetland etc.).	
Earthquake/Seismic: This is of particular concern to the USCG for its facilities on the West coast (Regions IX and X).	Specific adaptation actions are pending based on analysis findings and recommendations.	Ongoing

The DHS Resilience Framework requires efforts to increase the resilience of the Department's Misson Essential Assets (MEA) focusing on the four broad infrastructure categories of energy and water, facilities, information and communication technologies, and transportation. As part of efforts to increase the overall resilience of the Department's facilities, DHS Components are taking a broadly similar approach towards addressing climate impacts on their respective facility portfolios. This approach consists of the activities listed below. The Components either have, or are in the process of updating, real property management policies and procedures to incorporate climate adaptation considerations.

- Components are required to submit an updated "Plan for Resilience" and a populated Resilience Baseline Assessment Scoring (RBAS) tool bi-annually for all mission essential assets. Bi-annual updates to Component Plans for Resilience allow the Department to identify gaps or vulnerabilities associated with mission essential assets and where to prioritize resources to ensure resiliency. Ongoing and recurring facility assessments are also conducted to identify the most pressing resilience gaps, including exposure to climate risks. To provide a more holistic view of overall facility condition and exposure and to gain efficiencies, Components are moving towards combining resilience assessments (using the RBAS tool) with energy audits and facility condition assessments. The RBAS is a high-level tool to assess the vulnerabilities of the Department's most critical assets and score for resilience based on dependencies in energy and water, facilities, information communication technology, and transportation.
- DHS Components are implementing a robust sustainability, energy, and water program that coordinates closely with real property to ensure requirements are integrated into all

projects, new design and construction, and major renovations. These guidelines incorporate new federal building performance standards and review climate hazards that may affect long-term operation and mission. The Department's priorities are to:
    - Reduce on-site energy consumption and optimize on-site energy sources.
    - Reduce and conserve water with on-site or alternate supplies, combining with water storage, to enable our facilities to operate for a longer period in the event of a water shutoff.
    - Provide redundant electricity and water connections to enhance resilience.
    - Optimizing on-site renewable energy and battery installations (typically photovoltaic [PV] + battery) to enhance resilience in case of a grid failure.
    - Upgrading stormwater infrastructure (gray infrastructure) and implementation of NBS to manage stormwater runoff, which in turn reduces flood risk.
- DHS requires design and construction of all new facilities and major retrofits to be net zero emission and high-performance sustainable facilities. New buildings and major retrofits will be done to "high performance" building standards, such as LEED. These standards include provisions for implementation of stringent energy efficiency measures and enabling easy follow-on renewable energy and storage retrofits.
- DHS is reducing risk through real property strategies such as the real property "Workplace of the Future" efforts, regional co-location and consolidation efforts, and risk-based resource decision-making.
- DHS and Components are working with GSA to increase the resilience of GSA owned facilities that are occupied by DHS or a DHS Component.

Examples of DHS and Component policy changes to support increased resilience at federal facilities include:

DHS:

- The Department strategy to address "Workplace of the Future" is guided by mission objectives that integrate support across the Department and incorporate resilient technologies to address energy consumption and production.
- Updates to the Department's Long-term Real Property Program will include design standards and strengthen facility condition assessment policies.

FEMA:

- Issuance of FEMA Directive 128-1, Real Property Asset Management. This is FEMA's overarching document in which it will address resilience of facilities, building improvements, maintenance, and new builds.

FLETC:

- Updating of the FLETC Building Design Guide to incorporate resilience and sustainability.

S&T:

- Provides new "best practices" with its all-hazards resource Science Advice and Guidance for Emergencies (SAGE) to aid DHS and stakeholders in mitigating, responding to, and recovering from national and regional incidents.

USCG:

- Update of Facility Condition Index and Mission Dependency Index to better identify most pressing resilience needs.

Examples of DHS projects and efforts to increase building resilience (identified, planned, in-progress, completed):

DHS:

- The Department's St. Elizabeths campus incorporates water reduction landscaping and other water reduction features (NBS).
- The Department continues to develop and refine tools to support resilience assessments.

CBP:

- Utilizes climate and risk analysis tool to assess building vulnerabilities (for all CBP facilities) against the five listed hazards. The tool uses a scoring metric to assess thresholds of harmful severity.
- In May 2023, CBP implemented energy efficiency and resilience upgrades to 75 facilities under an Energy Savings Performance Contract (ESPC).
- Currently installing PV and Battery Energy Storage System (BESS) microgrids at varies locations across the United States.
- Completed a comprehensive lighting and HVAC efficiency survey at Fort Hancock Border Patrol Sector, Ysleta Border Patrol Station, and El Paso Border Patrol Sector Headquarters (HQ).
- Completed lighting upgrades in federal buildings to achieve a savings of 973.48 Metric Million British Thermal Units (MMBtu).
- Installed a PV project providing 100 percent self-sustained solar power for an on-site water treatment plant, a wastewater treatment plant, and an equine center system at the Calexico Border Patrol Station.

CISA:

- Based on a 2021 resilience assessment, planned resilience upgrades at a Pensacola facility include a second water line and on-site PV.
- CISA HQ at the St. Elizabeths Campus is designed to meet the LEED Gold standard and net-zero ready.

FEMA:

- A PV project at the Maynard campus offsets 100 percent of onsite electricity consumption.

FLETC:

- A 1.86-megawatt (MW) PV system was installed at Cheltenham campus in 2021. Planning is underway to connect the Cheltenham campus to the municipal water supply, reducing dependence on unreliable wells. A stormwater conditions assessment was completed in 2021 at Cheltenham to help prioritize additional stormwater infrastructure.

ICE:

- Completed resilience assessments at a total of 17 DHS border security, immigration tactical communications, and devolution sites. The resulting Resilience Assessment Output report identified gaps in emergency preparedness planning and a potential need to expand the list of locations considered MEAs. These topics are ongoing agenda items for the ICE Resilience Planning Committee.
- PV-Battery-Generator microgrids under development for facilities in St. Croix and St. Thomas, U.S. Virgin Islands. These microgrids are designed to meet 100 percent of the respective site's electricity consumption and will greatly reduce dependence on the local grid.

S&T:

- Many buildings were destroyed at Tyndall Air Force Base by Category 4 Hurricane Michael. Amidst the devastation, the main facility at the base, DHS Tyndall Reactive Materials Group Laboratory, stood strong as one of the few structures that has been built to withstand such a powerful storm. As the rebuilding process unfolds, resilience planning principles are being meticulously followed to ensure a stronger and more resilient future for the base.
- FY 2024–2026 National Biodefense Analysis and Countermeasures Center Fort Detrick, Maryland Energy Recovery System. The implementation of the energy recovery system will substantially reduce facility energy consumption, enhance the building's performance, and increase operational efficiency.

USCG:

- Completed 33 resilience projects in FY 2022.
- A 5.0 MW PV and 11.6 MWh BESS system has been installed at Petaluma Training Center.
- The planned Charleston Base Administration and Command Building (Awarded) will be net zero and include upsized stormwater and sewer systems.
- Conducting ongoing seismic structural engineering assessments (512 completed as of August 2023).

USSS:

- Installed a rainwater harvesting and storage system at the kennel at the James J. Rowley Training Center (RTC).

3B. Addressing Climate Hazard Exposures and Impacts Affecting Federal Employees

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)**
Wildfire: Exposure of DHS employees to wildfire risk is as follows: High risk – 14%; Very High risk – 6%; Extreme risk – 0%. Most impacted regions are the West, and to a lesser extent, Florida.	Same as efforts to protect facilities.	Ongoing
Flooding: 9% of DHS employees are in counties with land within a 100-year floodplain. An additional 5% of DHS employees are in counties with land within a 500-year floodplain.	Same as efforts to protect facilities.	Ongoing
Extreme Heat: Going forward, practically all DHS employees will experience more days with temperatures exceeding the historical 99th percentile. The most impacted regions will be those that already experience extreme high temperatures such as the Southwest and Southeast. The Lower Midwest will also be significantly impacted. A disproportionately impacted group will be CBP border patrol agents stationed along the Southern border who will be exposed to increasing heat in an area that already experiences extreme heat.	Same as efforts to protect facilities. CBP issued extreme heat guidance and heat stress kits to its workforce. The kits provide an initial response to lessen extreme heat effects experienced by the workforce and irregular migrants. This allows additional time for better emergency response and may ultimately save lives across more sectors as deployment increases.	Ongoing
Extreme Precipitation: Going forward, practically all	Same as efforts to protect facilities.	Ongoing

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)**
DHS employees will experience more extreme precipitation events than in the past.		
Sea Level Rise: 57% of employees are in counties exposed to sea level rise.	Same as efforts to protect facilities.	Ongoing

Generally, employee exposure to climate hazards tracks facility exposure to climate hazards. To the extent that threats to buildings are reduced, threats to the workers within those buildings are reduced as well. While the general intent of increased building resilience is to provide mission assurance, in practice resilience upgrades to protect buildings often also increase the safety and comfort of workers within those buildings. Examples of this include upgraded HVAC systems and building envelopes which protect employees from extreme heat, and redundant water supplies which protect employees against water supply interruptions. Therefore, much of the effort to increase building resiliency described in the previous section will also help reduce employee exposure to climate hazards. Taking commuting into account, employees can be protected during specific events (e.g., extreme precipitation, fire, flood, etc.) by being told to stay home.

Where this relationship between buildings and employees breaks down is for those employees whose job duties routinely take them beyond their work building or campus. This varies widely by Component, for example, large categories of employees in this situation include CBP agents who patrol the often hot (and getting hotter) Southern Border and USCG service members who spend significant time at sea. To address this, CBP is utilizing a Climate and Risk Analysis tool to assess building and employee hazard exposure for incorporation into mission operations planning.

3C. Addressing Climate Hazard Exposures and Impacts Affecting Federal Lands, Waters and Cultural Resources

PRIORITIZED ACTIONS TO ADDRESS CLIMATE HAZARD EXPOSURES AND IMPACTS AFFECTING FEDERAL LANDS, WATERS, AND ASSOCIATED CULTURAL RESOURCES		
Type of Land or Water Asset	**Climate Hazard Impact on and/or Exposure to the Asset**	**Priority Action**
DHS owns more than 8,000 buildings, 37,000 structures, and 86,000 acres of land with administrative, warehouse, family housing, campuses, detention centers, laboratories, shore facilities, and structures such as navigational aids and communication towers as assets (CAPSIS).	Extreme weather events, flooding, erosion, rising sea levels, and wildfires pose a risk to the natural and cultural resources residing on DHS owned land. For example, warming water temperatures could adversely impact historic USCG shipwrecks. Sea level rise, coastal erosion, and more extreme weather events could threaten USCG historic lighthouses. Due to the relatively small Department land base, the overall exposure of natural and cultural resources to climate hazards is relatively minor.	DHS protects and manages natural and cultural resources through the existing National Environmental Policy Act (NEPA) process and the DHS Cultural Resource Management Directive and Instruction. DHS prioritized updating its NEPA procedures to include an emphasis on climate change analysis; the development of a natural resource policy to include climate resilience strategies such as utilization of NBS, master planning, and natural resource management plans; drafting guidance on appropriate analysis of greenhouse gases during NEPA review; and the formulation of a methodology to calculate embodied carbon of existing buildings and historic properties to assist in historic preservation and appropriate climate resilience planning efforts. DHS is currently drafting a Nationwide Programmatic Agreement (NPA) for certain climate resilience and sustainability undertakings pursuant to Section 106 of the National Historic Preservation Act (NHPA) to streamline the process to implement sustainable building best practices, reduce energy and water use, and increase the utilization of renewable energy sources while preserving historic

PRIORITIZED ACTIONS TO ADDRESS CLIMATE HAZARD EXPOSURES AND IMPACTS AFFECTING FEDERAL LANDS, WATERS, AND ASSOCIATED CULTURAL RESOURCES		
Type of Land or Water Asset	**Climate Hazard Impact on and/or Exposure to the Asset**	**Priority Action**
		resources and adapting to climate change. The NPA is expected to be signed in 2024. As a member of the Advisory Council on Historic Preservation (ACHP), DHS served on a committee tasked with developing a policy statement on climate change and historic preservation. The policy statement addresses federal agency challenges and opportunities regarding the management and use of historic properties during a changing climate. DHS voted to adopt the ACHP Policy Statement in June 2023.

Real property is one of the Department's largest expenses, costing more than $5 billion annually for rent, operations and maintenance, construction, and tenant and capital improvements for a portfolio of more than 100 million square feet of leased and owned space. In FY 2023, DHS owned more than 8,000 buildings, 37,000 structures, and 86,000 acres of land across the Nation and U.S. territories which include many natural and cultural resources.

The majority of DHS Components have a limited real property and land portfolio as business is conducted from property leased from, or managed by, other federal entities, such as GSA. Within DHS, USCG has the largest owned real property and land portfolio. In contrast with federal land management agencies, none of the DHS Components manage large tracts of land. DHS controlled parcels tend to be limited to the land upon which DHS and Component facilities are located.

DHS acts as a steward of the land it manages which contains resources that are economically, socially, and culturally important to the Nation. Given DHS's national security mission, most Departmental land is actively used for homeland security purposes, which limits public access.

DHS analyzes potential climate impacts during the NEPA and NHPA processes, where best management practices are identified for natural and cultural resources. These considerations include how DHS actions may contribute to climate change as well as how the changing climate might impact operations.

While DHS does not have significant land management responsibilities, there are areas within which DHS Components operate, or at least monitor, that will likely be impacted by climate change and may require changes to the operating procedures of specific Components. One such area is the Southern Border, which is patrolled by CBP agents. Increasing heat and drought will likely lead to decreased water flow in the Rio Grande. Climate change impacts shorelines and coastal waters will impact USCG. Climate change will also result in an increase in extreme weather events where FEMA may help communities prepare, respond, mitigate, and adapt.

Several DHS Components are taking measures to ensure the integration of climate resilience and sustainability into natural and cultural resource management.

FLETC:

- To consider potential adverse effects on cultural and natural resources, including impacts from or on climate change, and to ensure appropriate management activities, FLETC has drafted a Cultural Resource Management Directive and Instruction and finalized a Forest Management Plan for its Glynco campus.

USCG:

- USCG is drafting Natural Resource Management policies to provide requirements and best management practices to advance stewardship, appropriately manage resources, and adapt to a changing climate as it relates to USCG assets, operations, and statutory requirements.

USSS:

- The USSS RTC continues to support planning of natural resource management efforts to conserve and enhance ecosystems while coordinating with various stakeholders. An example of this effort is the recent update to the RTC Master Plan and Supplemental Environmental Assessment which coordinated with local entities, such as the National Capital Planning Commission, to mitigate for any impacts to the tree canopy when development, including climate resiliency projects, is required.

CBP:

- Category 4 Hurricane Maria struck in September 2017, and damaged four of CBP's historic customs facilities in Puerto Rico (San Juan, Ponce, Fajardo, and Mayaguez). Because of the hurricane damage and other pre-existing building deficiencies, CBP initiated repairs and renovations to these buildings with climate resiliency in mind. CBP, in consultation with the State Historic Preservation Officer, sought to develop and install systems that would protect the building from rising water, high winds, and other climate threats; reduce energy consumption; and conserve historic features.

America the Beautiful	
DHS submitted an America the Beautiful (AtB) Conservation Action Plan in 2021 and has provided updates annually.	FEMA's management of floodplains and grants provided to communities for acquisition are complementary to conservation initiatives. For example, in FY 2023, FEMA continued to review potential actions to better align the National Flood

America the Beautiful	
	Insurance Program's (NFIP) minimum floodplain management standards with current understandings of flood risk, flood insurance premium rates, and risk reduction approaches to make communities safer, stronger, and more resilient to increased flooding. FEMA also provides several funding streams to facilitate Community-Driven Relocation and other climate resilience and adaptation activities. The FEMA BRIC program made nearly $3 billion available for BRIC and the Flood Mitigation Assistance (FMA) grant program. The FEMA BRIC non-financial Direct Technical Assistance Program offers help to communities in addition to project funds. For this FY, 20 Tribal Nations and 26 communities were selected to receive subject matter expertise and partnership collaborations to bolster community-wide resilience. In May 2023, five communities and ten Tribal Nations were selected to receive funds for the BRIC funding cycle to enhance disaster resiliency. Project types include riverine and inland flooding, coastal flooding, drought, wildfire, tornado, dam, and all-hazards. In addition, 34 tribes were selected in the Tribal Set-Aside for an estimated $54 million in funds.

When not legally restricted or impactful to mission, the Department takes advantage of partnerships and initiatives to enhance natural resource management and conservation. Examples of AtB initiatives at DHS that advance climate adaptation and resilience include:

DHS OCRSO Facilities and Operational Support:

- St. Elizabeths Sustainable Development Progress: Each of the new buildings on campus includes comprehensive storm water management best practices that help filter and slow groundwater entering the Anacostia River thereby reducing pollutants and turbidity and improving the aquatic health of the Anacostia. The DHS HQ west addition is LEED Platinum, and the Munro building has a green roof.

CBP:

- Alaska Watercraft Inspection Stations: CBP is partnering with the U.S. Fish and Wildlife Service (FWS) on the prevention of aquatic invasive species, such as zebra mussels and mud snails, which can be devastating to local fish populations and commercial fisheries. With rapidly changing environmental conditions under a warming climate, increased human disturbance, and expanding commerce, invasive species are spreading into the Northern latitudes, threatening food and water security. Additionally, rising sea temperatures can change food sources and processing for local fish, which would be

compounded by invasive species reducing food availability. As watercraft come across the U.S. and Canadian Border near Northway, Alaska, CBP and FWS ask them to stop at a watercraft inspection station to answer a series of questions which help screen watercraft for invasive species that could be detrimental to the Alaskan economy, public infrastructure, and natural resources.

FLETC:

- Tree Planting at the Cheltenham Training Delivery Point: From May 22-26, 2023, in coordination with the Maryland Department of Natural Resources, the Cheltenham Administration Division and the Facilities Management Division completed the planting of 3,200 sapling trees on 7.24 acres of land to mitigate for trees removed to construct the PV solar array. The replanting of trees was based on an agreement between FLETC and the Maryland Department of the Environment to reestablish tree cover on site in accordance with the Maryland Forest Conservation Act and prevent potential excessive storm water runoff from diminishing water quality within the watershed.

FEMA:

- NFIP: To encourage and recognize communities for taking actions that both mitigate flood risk and benefit species and their critical habitat, FEMA leverages the NFIP's Community Rating System (CRS). In addition to protecting species, many existing CRS activities also increase resilience by preserving floodplain open space and thus their natural and beneficial functions and adopting higher standards for stormwater runoff. In addition, FEMA analyzed CRS communities in a pilot study to determine which activities are commonly undertaken and why communities choose them. In FY 2023, FEMA continued to review potential actions to better align the NFIP minimum floodplain management standards with our current understanding of flood risk, flood insurance premium rates, and risk reduction approaches to make communities safer, stronger, and more resilient to increased flooding. FEMA is considering revisions to the minimum standards to better protect people and property in a manner that balances community needs with the national scope of the NFIP, while also incorporating opportunities for improving resilience in communities that have been historically underserved. The agency is also reviewing ways to further promote enhanced resilience efforts through the CRS. This remains a long-term project for FEMA per the Spring 2023 Unified Agenda.

  More specifically, FEMA is further evaluating and reviewing:
  - The Special Flood Hazard Area
  - Elevation requirements
  - Substantial Improvement/Substantial Damage requirements
  - Critical facilities regulations
  - Endangered Species Act protections
  - Flood risk disclosure requirements, all while considering future conditions and reducing risk.

- FEMA Federal Flood Risk Management Standard (FFRMS): On October 2, 2023, FEMA published a Notice of Proposed Rulemaking (NPRM) for revising its floodplain management regulations at Title 44, Code of Federal Regulations, Part 9, *Floodplain Management and Protection of Wetlands*. The proposed revisions fully implement the FFRMS.
    - The FFRMS increases federally funded projects' resiliency by incorporating anticipated changes in future flood risk into certain federally funded projects, ensuring those projects last as long as intended. Flood risk has increased across much of the United States due to sea level rise, changing precipitation patterns and development. As a result, the FFRMS directs federal agencies to consider the effects of future flooding for federally funded actions to further reduce risk of flooding. Applying the FFRMS will allow FEMA to consider the best available and actionable climate science in making projects and communities more resilient to increases in flood conditions.
    - The FFRMS applies only to federally funded actions involving new construction, substantial improvement, and repairs to substantial damage. FFRMS also applies to hazard mitigation projects involving structure elevation, dry floodproofing, and mitigation reconstruction. The comment period closed December 1, 2023. A final rule is anticipated to be issued in 2024.

USCG:

- Maritime Law Enforcement and Living Marine Resources Program: USCG is working closely nationwide with several partner agencies focused on enforcement of U.S. laws and regulations relating to marine environmental protection and fisheries. Fisheries are regulated to prevent overfishing, thus preserving the resilience of the Nation's food supply.

3D. Climate-Resilient Operations

3D.1. Accounting for Climate Risk in Planning and Decision Making

As part of its "all-hazards" approach to resilience, climate risk considerations have informed DHS planning and decision making for many years. The Department released its Resilience Framework in 2018. This was followed in 2021 with the release of the DHS CAP and the DHS Strategic Framework for Addressing Climate Change.

With DHS HQ providing overall direction, DHS Components are updating policies and procedures to "institutionalize" the process of incorporating the findings of hazard assessments (including climate hazard assessments) into their respective planning and decision-making processes.

DHS Policy 3.4 assesses the influence of climate change on future migration patterns. DHS Components use findings from resilience assessments to inform decisions in areas such as real property management, operations, and grant programs.

Examples of Component-level efforts:

CBP:

- The relationship between climate change and increased migration is being studied to further understand any implications that may be required for consideration with regards to resource needs, supply chain disruptions, and surge capacity.
- A Climate and Risk Analysis tool to assess building and employee hazard exposure for incorporation in mission operations planning is currently being utilized.

USCG:

- An expansion of its Alaska footprint is being planned as the Arctic becomes more of an arena of competition with Russia and China. The USCG Arctic Strategic Outlook Implementation Plan and the DHS Strategic Approach for Arctic Homeland Security are being implemented by USCG.

3D.2. Incorporating Climate Risk Assessment into Budget Planning

DHS Components are using findings from resilience assessments to inform their respective budget requests. DHS Components also utilize the RBAS Tool, which includes consideration for both manmade and natural hazards such as wildfires, hurricanes, and cyberattacks during resilience assessments, to identify critical areas in need of funding and capacity when addressing climate change hazards.

Examples of Component-level efforts:

USCG:

- The USCG Centralized Planned Obligation Prioritization Board Precept for FY 2024 sets aside three percent of FY 2024 Coastal and Shore Operations depot-level maintenance funding for resilience projects or MEAs with a condition index below 80.

3D.3. Incorporating Climate Risk into Policy and Programs

Agency Policies Reviewed:

Climate Adaptation and Resilience

Per DHS guidance, all Components developed resilience plans (that include climate resilience). All plans were updated in FY 2023, Quarter 4. These plans are updated every two years. Additionally, all Components evaluate their facilities using the RBAS Tool, which includes consideration for both manmade and natural hazards such as wildfires, hurricanes, and cyberattacks. Components have also incorporated climate risk into policies and programs, as follows:

CBP:

- Established a Green Trade Strategy to incentivize green trade, strengthen environmental enforcement posture, accelerate green innovation, and improve climate resilience and resource efficiency to champion a green economy.

FEMA:

- Revised Directive 108-03, Sustainable Performance and Environmental Management, and Directive 128-1, Real Property Management, to better meet goals in EO 14057.

FLETC:

- Updated the FLETC Master Plan, Operational Sustainability Performance Plan, Resilience Plan, and Continuity Plan to address climate literacy.

ICE:

- Developed a Memorandum of Understanding (MOU) between ICE and CBP for a U.S. Virgin Islands ESPC joint project and an interconnection agreement with the local utility.
- Continues to evaluate criminal and civil enforcement of federal laws governing border control, customs, trade, and immigration in the Arctic Region as global trade routes expand due to climatic changes.

USCG:

- Incorporated climate adaptation and resilience into "Project Evergreen", a strategic foresight exercise aimed at training leaders, researchers, and analysts to challenge their assumptions, identify possible trends, and plan accordingly.
- Established a Permanent "Climate Policy" working group under the Sustainability, Energy, Environmental, and Resilience Council.
- Released the USCG Climate Framework in January 2023.[1]

Nature-Based Solutions

The current DHS policy, centered on implementation of NEPA and the future Natural Resource Management policy, will include references and recommendations for considering and implementing NBS. DHS became a signatory to the Interagency MOU on Promoting Equitable Access to Nature in Nature-Deprived Communities in August 2022. By signing this MOU, DHS committed to collaborate to improve access to nature for communities that have historically not been afforded the benefits of parks and blue and green spaces, aligning both with the Justice40 initiative and promotion of nature-based infrastructure. FEMA led the Department in promoting NBS as evidenced below.

- FEMA's forthcoming FFRMS Policy will reflect the EO 13690 direction to "*[w]here possible, use natural systems, ecosystem processes, and nature-based approaches when developing alternatives for consideration*." – EO 11988, as amended, Sec. 2(a)(2)
- As part of the U.S. Coral Reef Task Force, FEMA issued a resolution recognizing coral reefs as national natural infrastructure and called on states and territories to invest in reefs as part of hazard mitigation and infrastructure development.

[1] https://media.defense.gov/2023/Feb/24/2003167005/-1/-1/0/USCG%20CLIMATE%20FRAMEWORK_JAN2023_FINAL.PDF

- The guide for the FFRMS includes specific detailed examples of how NBS can meet the FFRMS requirements for different types of projects.
- Released documents highlighting NBS and NBS best practices.[2]
- FEMA BRIC grant program encourages use of NBS.
- FEMA Mitigation Action Portfolio indicates the inclusion of NBS.
- NBS are highlighted in recently released 2023 FEMA Hazard Mitigation Assistance Policy and Program Guide
- NBS is awarded additional points under the FEMA BRIC and FMA programs.

Environmental Justice

To advance the White House Campaign on Environmental Justice, DHS committed to a year of community engagement to inform policy revisions, training initiatives, and updates to the DHS FY 2021-2025 Environmental Justice Strategy, which currently focuses on five main goals, including Goal 5: Integrating EJ principles into Departmental climate change initiatives.

A Request for Information (RFI) was posted in the Federal Register on December 18, 2023, for 60 days, with three virtual national listening sessions being held in January 2024. The RFI provided potential questions for considerations, including requests for suggestions for changes to DHS's current programs, regulations, or policies that would combat climate change, bolster underserved communities' resilience to climate change, or help communities adapt to its impacts. Comments received focused on meaningful engagement with communities with EJ concerns; climate resilience at DHS facilities; DHS operational activities and potential EJ impacts; equitable distribution of financial assistance before, during, and after a natural disaster; the need for additional data sets; and increased transparency in environmental decision-making. Responses received during the RFI comment period and virtual sessions will assist in guiding the revision of the DHS EJ Strategy which will be published in October 2024. [3]

In FY 2023 DHS also:

- Provided trainings and presentations from OCRSO and/or CRCL at the DHS CCAG, DHS Tribal Affairs monthly meeting, DHS Environmental Planning and Historic Preservation Community of Practice monthly meeting, DHS EJ Work Group meeting, OCRSO All-Hands meeting, Partnership for Inclusive Disaster Strategies weekly meeting, and the National EJ Conference in Washington, DC. These presentations focused on DHS activities with EJ considerations, how climate change disproportionately impacts disadvantaged communities, DHS efforts to adapt to climate change by prioritizing facility projects with added benefits to EJ communities, and best practices and tools for EJ analysis.
- Held a training for Component environmental planning and historic preservation subject matter experts where CEQ presented on the Climate and Economic Justice Screening

[2] https://www.fema.gov/emergency-managers/risk-management/climate-resilience/nature-based-solutions

[3] https://www.federalregister.gov/documents/2023/12/18/2023-27628/request-for-information-regarding-department-of-homeland-security-activities-and-advancing

Tool and NEPA Guidance on Consideration of Greenhouse Gas Emissions and Climate Change.

- Updated its EJ Webpage in December 2022 to include Frequently Asked Questions (FAQ). Specific information was added that discusses the relationship between climate change and EJ at DHS, including information on Justice40 covered programs, and DHS climate policies that incorporate EJ considerations.[4]
- Revised its EJ Strategy in May 2021, to include content discussing resilience. One of the goals of the strategy is: Further the integration of EJ principles into DHS lines of business, prominently including mitigation, adaptation, and resilience.[5]
- The DHS climate literacy curriculum includes significant climate and environmental justice content. Providing climate education with a strong civic engagement component will also empower DHS personnel with the understanding and skills needed to ensure equitable service delivery to vulnerable populations.
- Revised the disaster assistance process to make it more accessible and equitable.

The Inflation Reduction Act (IRA) provided $500 million for DHS implementation of investments associated with sustainability and environmental aspects across the Department. DHS is investing IRA funds to start to address the facility backlogged requirements that meet one or more IRA categories: Sustainability, Resilience, Energy, Environmental Compliance, EJ, and Consolidations/Co-Location Efficiencies. For consideration under the EJ funding category, proposed projects should support efforts to partner with those most affected by environmental or human health inequities as noted in the Department's 2021 Climate Adaptation Plan, Resilience Framework, Sustainability Plan, and EJ Strategy and aligned with EO 13985, *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government*; EO 14008, *Tackling the Climate Crisis at Home and Abroad;* and consistent with EO 14096, *Revitalizing Our Nation's Commitment to Environmental Justice for All*. In addition, the Department utilizes the Climate and Economic Justice Screening Tool (CEJST) to identify geographically disadvantaged communities for any covered programs under the Justice40 Initiative and for programs where a statute directs resources to disadvantaged communities to the maximum extent possible and permitted by law.

Components, such as FEMA, also reviewed policies and programs for EJ considerations and integration, including:

FEMA:

- A FEMA strategic goal is to "instill equity as a foundation of emergency management."
- Working to expand outreach and access to DHS financial assistance to marginalized populations disproportionately affected by climate change.
- Announced the first 483 Community Disaster Resilience Zones (CRDZ) in all 50 states and the District of Columbia. FEMA used the National Risk Index and other tools to identify the census tracts across the country at the highest risk from natural hazards and those most in need. Communities designated as CDRZ can receive increased financial

[4] https://www.dhs.gov/dhs-and-environmental-justice

[5] https://www.dhs.gov/sites/default/files/publications/dhs_environmental_justice_strategy_fy_2021-2025_final.pdf

and technical assistance for BRIC projects and technical assistance to plan and implement resilience projects. Additional CRDZs will be designated in 2024.

- To increase funding to underserved communities, FEMA added bonus points to the FY 2023 Nonprofit Security Grant Program scoring methodology to incentivize increased participation from nonprofits that have never received funding and those located in or serving underserved communities.
- Introduced the *E.O. 12898 EJ Interim Guidance for FEMA Environmental and Historic Preservation Cadre* in October 2022.

FLETC:

- In-house EJ training program completed by all environmental professionals in FY 2022; quarterly sustainability and environmental meetings for environmental professionals inaugurated in July 2023.

Tribal Nations

DHS Directive 071-04, Consultation and Coordination with Tribal Nations, in December 2022, followed in February 2023 by implementing instructions in Instruction 071-04-001, *Implementing Consultation and Coordination with Tribal Nations*, provides a process for meaningful consultation and requires the Department to early and regular consultations regarding its policies, programs, and services that directly impact Tribal Nations. This includes tribal financial assistance such as those grant programs covered under Justice40 and any facility management activities taken to increase climate resiliency.

In December 2023, DHS signed onto the MOU Regarding Interagency Coordination and Collaboration for the Protection of Indigenous Sacred Sites. The MOU commits the signatory agencies to identify best practices for the management and protection of sacred sites, including adverse impacts from climate change on federal lands and waters. As a result of signing the MOU, DHS will review its cultural resource management policies in FY 2024-2025 for potential integration of best management practices.

Also in 2023, the DHS Secretary tasked the Tribal Homeland Security Advisory Council with the review of DHS grants, specifically six FEMA grant programs, and the development of a report with recommendations on increasing equity and accessibility. The report was published on January 10, 2024, and made many recommendations such as communicating how DHS plans to promote climate adaptation and resilience, while also helping to advance the Justice40 initiative through tribal grant programs.

DHS follow up activities, as prescribed by the *National Strategy for the Arctic Region*, will be in "… partnership with Alaska Native Tribes, communities, corporations, and other organizations; the state of Alaska; and public, private, academic, and non-governmental sectors at home and abroad to harness the full range of knowledge and resources required to meet these goals."

The DHS CAP is informed by the DHS Tribal Consultation Plan. Component actions include:

CISA:

- Expanded outreach to tribal communities launched in January 2022 on the CISA Tribal Affairs website, which provides a clearinghouse of agency services and resources that are available to assist Native American and Alaska Native tribes in strengthening the resilience of critical infrastructure, including risks that may arise from climate change such as disruptions to tribal emergency management and communications systems. This includes improving operable and interoperable communications, an enhanced cyber posture, consultative engagement, outreach, advocacy, technical assistance, and coordination.[6]

FEMA:

- As of October 31, 2023, FEMA completed MOUs with the 45 Tribal Nations and communities who have been selected to receive Direct Technical Assistance through BRIC.
- The White House launched a Community-Driven Relocation Subcommittee as part of the White House National Climate Task Force in August 2022. This Interagency Subcommittee is co-led by FEMA and the U.S. Department of the Interior (DOI). Through investments from the Bipartisan Infrastructure Law and IRA, FEMA, along with the Denali Commission, is supporting the DOI in its commitment of $115 million for 11 severely impacted tribes to advance community-driven relocation efforts and climate adaptation planning.
- FEMA is working toward meeting goals identified in its first ever National Tribal Strategy. The FY 2022-2026 Strategy outlines the agency's responsibilities to federally recognized Tribal Nations, including building tribal capacities and capabilities to improve readiness and resilience. In FY 2023, FEMA held tribal consultation meetings to discuss needed updates to the Tribal Mitigation Plan Review Guide, last revised in 2017. The Review Guide helps FEMA officials review tribal mitigation plans in a fair and consistent way. It also informs tribal governments about what the plan must include to receive FEMA approval.

S&T:

- S&T co-hosted a workshop on May 8, 2023, with the Arctic Initiative at the Harvard Kennedy School's Belfer Center for Science and International Affairs.
- The workshop focused on the effects of rapid climate change on the U.S. Arctic and Alaska, with an emphasis on resiliency, public safety, and impacts on Indigenous Alaskan communities. This workshop brought together representatives from S&T and DHS Components, other federal agencies, academia, public and private agencies working in Alaska on climate related issues, and representatives and leaders of Indigenous Alaskan communities. A wide variety of participants representing S&T and DHS Components, DHS's CCAG, the Arctic Initiative at Harvard Kennedy School's Belfer Center, the White House, NOAA, the U.S. Arctic Research Commission, the Denali

[6] https://www.cisa.gov/about/cisa-tribal-affairs

Commission, the Alaskan Native Science Commission, the University of Alaska Fairbanks, and the Alaska Native Tribal Health Consortium.

- On January 11, 2024, S&T announced the selection of the University of Alaska to lead a consortium of U.S. academic institutions and other partners for the new Artic Domain Awareness Center (ADAC)-ARCTIC Center of Excellence (COE) for Homeland Security in the Arctic. S&T will provide ADAC-ARCTIC with $46 million over a 10-year cooperative agreement period. The COE will lead a consortium of academic, industry, government, laboratory, and local and indigenous community partners to help provide access to rigorous research and education resources for DHS, and broader homeland security stakeholders.

USCG:

- The USCG tribal consultation policy is being finalized.
- In 2023 the USCG issued its Arctic Strategic Outlook Implementation Plan, which calls for ongoing tribal engagement on a variety of issues including responses to climate-driven emergencies through studies, reports, committees, and trainings.
- Regularly engages with Native Alaskan communities in the Arctic. These tribal communities are subject to disproportionate impacts of climate change in the form of loss of winter shore fast ice (which may contribute to coastal erosion that are especially prevalent near remote coastal Native Alaskan villages during winter storms), permafrost thaw (which may contribute to damage to village infrastructure), loss of sea ice (and the resulting increase in vessel traffic, pollution, and offshore lighting), warming waters, wildfires, and general weather changes, etc. District 17 conducts holistic mission outreach and operations as a principal federal agency meeting with these remote communities. During this outreach, USCG has become more cognizant of the considerable climate change impacts on coastal Native Alaskan village subsistence resources, infrastructure, economy, and community health, and continue to strategize appropriate ways and means to evaluate and respond.

Co-Benefits of Adaptation

While DHS and its Components must adapt their facilities and internal operations to account for climate change, the Department and many of its Components have "outward facing" missions that will be significantly impacted by climate change.

The Department designs and delivers Emerging Threats and Hazards exercises through its Exercise and Evaluation Program. Led by FEMA's National Exercise Division, climate adaptation and resilience exercises focus on various climate threats including extreme heat and extreme cold. Department-level and leadership-level actions, authorities, and decision-making are examined to address impacts of climate change and determine outcomes for climate adaptation and resilience initiatives. During the 2022 exercise, facilitator-led scenarios included extreme heat events that would occur in the Pacific-Northwest and the Southwest. Scenarios were designed to examine Department actions, capabilities, and mission resilience.

Other related DHS activities include development of an Arctic Homeland Security Implementation Plan and development of a DHS Resilience Hub Finder tool to support the identification and location of resilience hub resources across the U.S.[7]

Examples of changes to Component "outward facing" programs and efforts, in addition to ones listed above, include:

CISA:

- Conducting continuing and ongoing engagement with external stakeholders to examine climate-related impacts to major infrastructure systems and develop and share resiliency mitigations.
- Completed an assessment of climate change impacts to 55 NCFs.[8]
- The Extreme Weather Outreach effort provides climate education to the regions, state, local, tribal, and territorial (SLTT) partners and various stakeholders through presentations, climate impact summaries, and targeted research supporting exercises at the state and local levels. CISA's regional map website hosts numerous studies, factsheets, and resources from interagency partners and the scientific community for planning and coordination of mitigation efforts around extreme heat, extreme cold, and wildfires.[9]
- A variety of programs, tools, and publications to help facility owners assess and improve the resilience of their facilities are currently active. These include Resilience Planning Program, Assessment tools, Drought and Infrastructure Guide, and Resilient Power Best Practices for Critical Facilities and Sites.

FEMA:

- The agency is responsible for disaster response and recovery and for helping communities prepare for disasters ahead of time. The latter includes assisting communities with increasing the resiliency of both local infrastructure and organizational disaster preparedness. Climate change is expected to increase both the number and severity of the disasters to which FEMA must respond. FEMA revamped several grant programs to better help communities increase local infrastructure resilience. These include:

    - Updating the national risk index and incorporate future risks and conditions.
    - Implementing future of flood risk data initiative.
    - Launching of the climate risk and resilience portal.
    - Promoting the use of the Resilience Analysis and Planning Tool.
    - Promoting community, sustainability, and resilience using building codes.
    - Working to strengthen floodplain management standards.
    - Publishing the federal flood risk management standard NPRM.
    - Using hazard mitigation funding to further community resilience investments.
    - Updating federal continuity directives.

[7] https://experience.arcgis.com/experience/7f7988a5b2df4543b9c6c73b2d8e18e1/

[8] https://www.cisa.gov/sites/default/files/publications/2021_ncf-status_update_508.pdf

[9] https://experience.arcgis.com/experience/a1ec0d1276064ae387c863f2a14b11e1/, https://www.dhs.gov/aep-deliverables

- Releasing the FEMA Community Resilience Guide.

USCG:

- Climate change is intensifying threats to U.S. interests in the Artic. As part of an effort to respond to these threats, a significant expansion of USCG's Alaska footprint is envisioned. USCG released an Arctic Strategic Outlook (2019 April) and an Arctic Strategic Outlook Implementation Plan (2023 October).

CBP:

- Climate change analysis regarding likeliness to lead to increased migration and more migrants at the Southern Border is currently ongoing.

3D.4. Climate-Smart Supply Chains and Procurement

Climate related supply chain issues are mostly mission related and involve disaster response. On-site electrical distribution systems and renewable energy projects may be impacted by the supply of distribution transformers. Several DHS Components conduct "outfacing" national and regional supply chain analysis and supply chain exercises as shown below. Examples of efforts within Components to address climate related supply chain issues.

FEMA:

- Completed the 2023 National Strategic Supply Chain Risk Analysis and the Pacific Supply Chain Vulnerability and Risk Analysis study. Both were briefed to FEMA leadership and released to federal partners, FEMA regions, and SLTT partners for use in planning and response operations.
- Established an emergency fuel contract to ensure fuel availability during disaster response operations.

USCG:

- Established a generator supply chain contract.

ICE:

- Held a tabletop exercise focused on fuel logistics and supply chain for the U.S. Virgin Islands and Puerto Rico.

3D.5. Climate Informed Funding to External Parties

Within DHS, the bulk of climate-informed funding to external parties is through the various financial assistance programs managed by FEMA. In recent years, FEMA revamped several grant programs to incentivize and support action toward climate resilience at the state and local level. These programs include the FMA program, the Hazard Mitigation Grant Program (HMGP), and the BRIC program. BRIC funds risk reduction projects which can include NBS. For FY 2020 and FY 2021 funding cycles, the BRIC program selected hazard mitigation projects that address climate adaptation: FY 2020 – 22 projects ($727.7 million); FY 2021 – 53 ($1.3 billion); including Flood Control, Utility/Infrastructure Protection, Wildfire Management, Relocation, and Saferoom/shelters. Additionally, 49 of the 75 selected competitive projects incorporate NBS. There was also increased funding for HMGP to $3.46 billion across the 59 major disaster declarations issued due to COVID-19. For FY 2022, FMA grants totaled $800

million, and BRIC funding totaled $2.295 billion. Many of these programs promote climate adaptation and resilience, while also helping to advance EJ because they are covered programs within the Justice40 Initiative, which sets a goal that 40 percent of the overall benefits of certain federal climate and other investments flow to disadvantaged communities that are marginalized by underinvestment and overburdened by pollution.

3E. 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).* 0%. DHS "Climate 101 and 201" training courses scheduled to be released later in FY 2024.
	Percent of the agency's senior leadership (e.g., Secretary, Deputy Secretary, Senior Executives Service [SES], Directors, Branch Chiefs, etc.) have completed climate adaptation training. The "Climate 101 and 201" training courses will provide training to all, including senior leadership. The CCAG held heat and other climate related exercises with leadership.
	Percent of budget officials that have received climate adaptation related training. The "Climate 101 and 201" training courses will provide training to all, including budget officials.
	Percent acquisition officials that have received climate adaptation related training. Same as above.
	Additional efforts the agency is making to develop a climate-informed workforce. DHS Climate Literacy Strategy was released in January 2023. DHS Climate Change Professionals Program debuted in FY 2023. Participants will receive Association of Climate Change Officers training and become Certified Climate Change Professionals and will be assigned to climate change related projects. Through the end of FY 2024, eight individuals will complete the program with another nine finishing in FY

Training and Capacity Building	
	2025. Internal DHS website created for sharing climate change information among DHS Components. Developing a Department-wide climate literacy community of practice to champion, share, and coordinate climate change discussions. Developing a Department-wide Climate Change 201 course focused on sustainable buildings and energy efficiency practices in the agency. On June 8, 2023, OCRSO's Sustainability and Environmental Programs held a training for Component environmental planning and historic preservation subject matter experts where CEQ provided training on CEJST and NEPA Guidance on Consideration of Greenhouse Gas Emissions and Climate Change.
Agency Capacity	*Number of full-time federal staff across the agency that have tasks relevant to climate adaptation in their job description.* The Department is assigning graduates of the Climate Change Professionals program to climate related positions.

Examples of efforts within the Components.

FEMA:

- Developed and shared climate related training material within the wider emergency management community; climate adaptation in National Level Exercises; and climate training partnerships.
- Working with Columbia University, University of Hawai'i National Training Center, and Georgia Tech's Enterprise Innovation Institute to create a preparedness and climate change literacy training materials for local and state emergency managers.

ICE:

- Committed to onboard a DHS Climate Change Professional.
- Currently exploring training options for facility managers to fully utilize a portfolio-wide ESPC in 2024.

3F. Summary for Major Milestones

Section of the Implementation Plan	Description of Milestone	Climate Risk Addressed	Indicators for Success
2A. Climate Hazard Exposures and Impacts Affecting Federal Buildings	Component Resilience plans submitted bi-annually	All-hazards	Component review process of bi-annual submissions through scoring rubric.

Section of the Implementation Plan	Description of Milestone	Climate Risk Addressed	Indicators for Success
3D.3. Incorporating Climate Risk into Policy and Programs	Completion of DHS and Component policy review.	All-hazards	Successful inclusion and publication of DHS and Component policies with regards to climate adaptation and resilience.
3E. Climate Training and Capacity Building for a Climate Informed Workforce	Climate Training 101	All-hazards	Successful release of Climate 101 training materials in the future. Completion of the 101 climate training development for future participation by DHS and Component personnel. Increasing number of Climate Change Professionals program assigned to relevant positions within DHS.

Key Performance Indicator: Climate adaptation and resilience objectives and performance measures are incorporated in agency program planning and budgeting by 2027.		
Section of the CAP	**Process Metric**	**Agency Response**
3B. 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)	Yes

	Step 2: Agency has a list of discrete actions that will be taken through 2027 as part of their implementation plan. (Y/N/Partially)	Yes
3D.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)	Yes
3D.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
3D.5. Climate Informed Funding to External Parties	Step 1: By July 2025, the agency will identify grants that can include consideration and/or evaluation of climate risk. (Y/N/Partially) Step 2: Agency modernizes all applicable funding announcements/grants to include a requirement for the grantee to consider climate hazard exposures. (Y/N/Partially)	Yes Yes
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	Agency has identified the information systems that need to incorporate climate change data and information and will incorporate climate change	Partially

Impacts and Exposure	information into those systems by 2027. (Y/N/Partially)	
Key Performance Indicator: Agency CAPs address multiple climate hazard impacts and other stressors, and demonstrate NBS, equitable approaches, and mitigation co-benefits to adaptation and resilience objectives.		
Section of the CAP	**Process Metric**	**Agency Response**
3B.3. Incorporating Climate Risk into Policy and Programs	By July 2025, 100% of climate adaptation and resilience policies have been reviewed and revised to (as relevant) incorporate NBS, mitigation co-benefits, and equity principles. (Y/N/Partially)	Yes
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 5 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)	Yes Yes
	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

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**
3E. 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 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% of employees have completed Climate 101 training. (Y/N/Partially)	Partially No. A Climate 101 and 201 training is under development. Zero percent thus far. A Climate 101 and 201 training is under development.

Section 4: Demonstrating Progress

DHS acknowledges climate threats and their impacts threaten to disrupt operations, MEFs, and Critical Infrastructure. Projects to enhance MEF will take a risk-based approach to understand impacts from climate change hazards and plan for multiple adaptation scenarios. Risks are identified and prioritized as part of the NCF National Risk Register to inform adaptation and federal planning decisions and investments where appropriate. DHS will evaluate existing and new projects and prioritized risks to ensure the consideration of climate change impacts and adaptation scenarios and the adoption of resilience measures where appropriate and incorporate them into capital planning and real property directives.

As planned in the September 2021 DHS CAP's Priority Actions 1 (Planning and Processes) and 3 (Community Adaptation), DHS has followed through on its commitment to serve as a key promoter, consumer, and integrator of federal, SLTT governments, academic, and private sector, data, and tools to inform climate action by DHS and community partners.

Two Components are spearheading new efforts to create more robust planning and adaptive capacity in new and existing buildings across the Nation. FLETC is updating its internal Building Design Guide to address the threats of flooding, extreme wind, seismic hazards etc. FEMA created the 2022 Building Code Strategy and leads the National Initiative to Advance Building Codes to promote disaster-resistant building codes that harden assets against natural hazards. FEMA is also increasing investment in its flood hazard mapping program for the United States. These efforts will increase adaptive capacity and save lives.

As climate hazard exposures to federal employees are predicted to increase over time, it will become increasingly important to provide employees and support personnel with tools and training in climate adaptation. FEMA's FY 2022-2026 Strategic Plan describes steps to grow a climate-literate workforce that integrates policy, programs, partnerships, field operations, and training.

Taken together, the multitude of efforts within the DHS arena contribute to strengthening federal mission resilience and its ability to adapt to a changing climate as demonstrated by these examples:

DHS:

- Updated Real Property policy: As described in the FY 2025-2029 RPCP, the Resource Planning Guidance (RPG) from the Secretary prioritizes making the Nation ready to respond to and recover from disasters, as well as combat the climate crisis. Further, the Mission Support Guidance (MSG) from the Under Secretary for Management integrates CAPs with Facilities Transformation objectives.
- Conducted a Climate Adaptation and Resilience Exercise for the CCAG. The 2022 exercise consisted of a 90-minute discussion around two extended extreme heat scenarios involving the Pacific Northwest and the Southern Plains. The exercise resulted in ten recommendations impacting (1) Plans and Policies, (2) Operations, (3) Operational Coordination, (4) Infrastructure Systems, (5) Public Information, and (6) Long Term Vulnerability Reduction. Participating Components included: USCIS, USCG, CBP, CISA, FEMA, FLETC, ICE, TSA, MGMT, S&T, CWMD, I&A, OSA.

- Became the newest member of the U.S. Global Change Research Program (USGCRP). In January 2023, DHS joined the USGCRP to further its commitment to incorporate the findings of climate science into strategies and programs.
- Developed a Strategic Approach to Arctic Homeland Security Action Plan. Pillar 2 of this plan states that DHS will partner with Alaskan communities to build resilience to the impacts of climate change. Persistent presence in the region advances national interests related to climate change by expanding domain awareness that will inform how, when, where, and why the environment is changing. This enables the Department and the Nation to be proactive and responsive in addressing climate change's impacts.

S&T:

- Provides ongoing new "best practices" with its all-hazards SAGE resource team to aid DHS and stakeholders in reducing, responding to, and recovering from national and regional incidents.

FEMA:

- Provided community leaders with new resources to prepare for extreme temperature events, for example, the continuation of the "#summerready" campaign at the extreme heat summit where the Secretary spoke in August 2023 about the Department's actions to build resilience to extreme heat impacts on communities and infrastructure. This summit also provided a forum for leadership and federal partners to identify and address gaps and challenges. Experts from across the nation discussed their findings with federal senior leadership regarding consequence management, occupational health, preparedness, and hazard mitigation for extreme heat. [10]
- Released a major update to the National Risk Index in March 2023 to better account for future impacts of climate change. The risk information provided will enhance resilience by allowing local community planners to model and assess future risk, identify potential adaptation measures including NBS, and assess the estimated benefits from those targeted projects and actions toward lowering their overall risk to climate driven emergencies.
- Published the "FEMA Response and Recovery Climate Change Planning Guidance" which includes the FEMA Strategic Plan objective to improve climate literacy among the emergency management community and is the first-ever planning guide intended for FEMA response and recovery planners that explains how a complex issue such as climate change can be incorporated into its work. The guide also serves as a best practice for the entire emergency management community.

USCG:

- Issued a Climate Framework in February 2023 which builds upon the DHS Climate Framework and is organized into three LoE: build climate resilience into the USCG workforce, infrastructure, and assets; plan for and respond to more frequent weather emergencies and long-term climate trends; and develop and leverage partnerships to enhance, enable, and ensure maritime safety.
- Released its Arctic Strategic Outlook Implementation Plan. The Implementation Plan outlines 14 interconnected, action-oriented initiatives USCG will undertake to execute strategic objectives from its Arctic Strategic Outlook. These efforts promote resilience,

[10] www.heat.gov

safety, security, stewardship, and sovereign rights across the Arctic while supporting the National Strategy for the Arctic Region.

CISA:

- In October 2023, CISA released its Secure by Design whitepaper, "Shifting the Balance of Cybersecurity Risk: Principles and Approaches for Secure by Design Software." Expanding Secure by Design to integrate cybersecurity as a core component of climate change mitigation technologies, such as renewable energy, can increase resilience and lessen emerging cyber risks.

Appendix A: Acronym Table

Acronym	Terminology
AtB	America the Beautiful
BESS	Battery Energy Storage System
BRIC	Building Resilient Infrastructure and Communities
CO_2	Carbon Dioxide
COE	Center of Excellence
CAP	Climate Action Plan
CEJST	Climate and Economic Justice Screening Tool
CCAG	Climate Change Action Group
CMRA	Climate Mapping for Resilience and Adaptation
CRDZ	Community Disaster Resilience Zones
CRS	Community Rating System
CAPSIS	Consolidated Asset Portfolio and Sustainability Information System
CONUS	Continental United States
CEQ	Council on Environmental Quality
CWMD	Countering Weapons of Mass Destruction Office
CISA	Cybersecurity and Infrastructure Security Agency
DHS	Department of Homeland Security
DOI	Department of the Interior
ESPC	Energy Savings Performance Contract
EJ	Environmental Justice
EO	Executive Order
F&OS	Facilities and Operational Support
FEMA	Federal Emergency Management Agency

Acronym	Terminology
FFRMS	Federal Flood Risk Management Standard
FLETC	Federal Law Enforcement Training Center
FRPP	Federal Real Property Profile
FY	Fiscal Year
FMA	Flood Mitigation Assistance
GSA	General Services Administration
HMGP	Hazard Mitigation Grant Program
HQ	Headquarter
HVAC	Heating, Ventilation, and Air Conditioning
IRA	Inflation Reduction Act
LEED	Leadership in Energy and Environmental Design
LoE	Lines of Effort
LOCA	Localized Constructed Analogs
MW	Megawatt
MOU	Memorandum of Understanding
MMBtu	Metric Million British Thermal Unit
MEA	Mission Essential Assets
MSG	Mission Support Guidance
NCA	National Climate Assessment
NCF	National Critical Functions
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act

Acronym	Terminology
NOAA	National Oceanic and Atmospheric Administration
NRMC	National Risk Management Center
NPRM	Notice of Proposed Rulemaking
CRCL	Office for Civil Rights and Civil Liberties
OPM	Office of Personnel Management
OCRSO	Office of the Chief Readiness Support Officer
PV	Photovoltaic
RPDW	Real Property Data Warehouse
RCP	Representative Concentration Pathways
RFI	Request for Information
RBAS	Resilience Baseline Assessment Scoring
RPG	Resource Planning Guidance
RTC	Rowley Training Center
SAGE	Science Advice and Guidance for Emergencies
S&T	Science and Technology Directorate
SES	Senior Executives Service
SLTT	State, Local, Tribal, and Territorial
TSF	Total Square Footage
TSA	Transportation Security Administration
USCIS	U.S. Citizenship and Immigration Services
USCG	U.S. Coast Guard
CBP	U.S. Customs and Border Protection
FWS	U.S. Fish and Wildlife Service

Acronym	Terminology
USFS	U.S. Forest Service
ICE	U.S. Immigration and Customs Enforcement
USSS	U.S. Secret Service
U.S.	United States
USGCRP	United States Global Change Research Program
WHEJAC	White House Environmental Justice Advisory Council

Appendix B: Risk Assessment Data

Buildings:

Buildings data comes from the publicly available Federal Real Property Profile (FRPP). 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 based on 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 several 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 five 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 CAPs 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. Climate data used is limited to CONUS. Additional information regarding Alaska, Hawaii, U.S. Territories, and marine environments has been included as available.