U.S. General Services Administration (GSA)

2024-2027 Climate Change Risk Management Plan

Approved by the Head of the Agency: Signature

Robin Carnahan

Table of Contents

Executive Summary

GSA is committed to securing federal property and supply-chain investments, which are critical to meeting our objectives in supporting the delivery of government services to the public. Investments to manage climate risks and adapt through planning and preparing for climate hazards now - to reduce potential future losses - can help limit federal fiscal exposure and the need to take far more costly steps in the future.[1] This Climate Change Risk Management Plan (Plan) primarily addresses physical risks and implications across GSA's governance, strategy, risk management, metrics and targets, and like prior GSA plans is solely focused on the adaptation response to climate change. This Plan does not address the known transition[2] risks and implications across the same topics for both GSA and its customers.

Strategically, the Plan emphasizes integrating climate risk management into GSA's core business operations, which ruggedizes the agency for both the observed and expected changes in climate. Risk-management protocols are proposed to proactively identify and mitigate climate-related threats, safeguarding the agency's assets and operations. The planned actions position GSA to provide customer agencies with innovative, expert solutions to the myriad of challenges posed by climate change risks in a dynamic policy and fiscal environment. GSA's national services lines, the Public Buildings Service (PBS) and the Federal Acquisition Service (FAS), offer an established and reliable governance structure and business processes to facilitate an integrated national strategy for climate-adaptation and climate-risk management actions.

This Plan summarizes GSA's exposure, approach, accomplishments, plans, actions, and coordination activities to evaluate the agency's climate change risks and vulnerabilities to manage both the short- and long-term effects of climate change on the agency's mission and operations. GSA will strive to implement its climate adaptation responses with foresight, ensuring reliable performance in changing conditions for a more secure future for the agency and its customers.

[1] https://www.gao.gov/assets/gao-23-106362.pdf
[2] NCA 5 Glossary "Transition risk: A risk associated with uncertain impacts, including financial and economic, that could result from a transition to a net-zero emissions economy."

Section 1: Agency Profile

	Agency Profile
Mission	To deliver the best customer experience and value in real estate, acquisition, and technology services to the government and the American people.
Adaptation Plan Scope	U.S. General Services Administration (GSA)
Agency Climate Adaptation Official	Katy Kale, Deputy Administrator
Agency Risk Officer	Steve Brockelman, Deputy Performance Improvement Officer, Office of the Chief Financial Officer
Point of Public Contact for Environmental Justice	Aluanda Drain, Associate Administrator, Office of Civil Rights civilrights@gsa.gov
Owned Buildings	Approximately 1,600 federally owned buildings of nearly 190 million square feet *(U.S. General Services Administration, 2022)*
Leased Buildings	Approximately 6,600 leased buildings of nearly 180 million square feet *(U.S. General Services Administration, 2022)*
Employees	There are over 12,700 GSA employees across the United States *(U.S. General Services Administration, 2022)*
Federal Lands and Waters	GSA has jurisdiction, custody and control over approximately 3,300 acres of federal land (land ONLY assets excluding land connected or related to federal buildings and/or structures). *(U.S. General Services Administration, 2022)*
Budget	$35.815 billion[3] FY22 Total Obligations (per FY24 C.J., including supplemental appropriations) $40.412 billion FY23 Total Obligations (per FY25 C.J., including supplemental appropriations) $43.972 billion FY24 Projected Total Obligations (per FY 2025 C.J., including supplemental appropriations) $50.390 billion FY25 Projected Total ObligationsBudget (per FY 2025 C.J., including supplemental appropriations)
Key Areas of Climate Adaptation Effort	GSA has two key areas of focus for climate adaptation based on GSA's statutory mission and its primary business functions: increasing the adaptive capacity to the observed and expected changes in climate for federal real property and the supply of goods and services through modernized acquisition and assessment tools; and integrating climate risk management factors into decision-making and financial planning to safeguard the federal investment and prudent fiscal action.

[3] See 3B Agency Policies Reviewed - Co-Benefits of Adaptation (page 24) for further information regarding GSA's appropriations from the Bipartisan Infrastructure Law (BIL) and Inflation Reduction Act (IRA) and the objectives and intended responses to climate change, specifically emissions mitigation of greenhouse gasses via the use of specific low-embodied carbon materials and electrification of systems.

	These two areas align with GSA's identified priority actions, as detailed in the narrative below.

Section 2: Exposure Assessment

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

GSA assessed the exposure of its buildings; employees; and lands, waters, and cultural and natural resources to five climate hazards: extreme heat, extreme precipitation, sea level rise, flooding, and wildfire risk.

The source of the climate data used by the Federal Mapping App is available at this link: Data Sources | Climate Mapping for Resilience and Adaptation

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

Climate scenarios considered in agency risk assessment (RCP 4.5 and RCP 8.5) are detailed in Table 3 of the 5th National Climate Assessment.

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

2A. Climate Hazard Exposures and Impacts Affecting Federal Buildings[4]

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 temperatures (calculated annually) from 1976-2005	100%	100%	100%	100%
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	94%	99%	96%	92%
Sea Level Rise: Percent of buildings projected to be inundated by sea level rise	2%	3%	2%	4%

	High Risk	Very High Risk	Extreme Risk
Wildfire: Percent of buildings at highest risk to wildfire	2%	<1%	<1%

	100- or 500- year floodplain
Flooding: Percent of buildings located within floodplains	6%

GSA has jurisdiction, custody or control over approximately 8,200 buildings across the United States to provide real estate solutions for the federal workforce, including the approximately 1,600 federally-owned buildings represented in the table above. Buildings managed by GSA are exposed to a variety of climate hazards due to their large geographic coverage. Further insights are detailed in the sections below, and Section 3 describes the planned adaptation and mitigation measures.

Extreme Heat

While all buildings under GSA's jurisdiction, custody or control are anticipated to see some degree of increase in extreme heat by 2050 and 2080, there is a variety in the severity of increase in extreme heat (e.g., some locations have significant increases compared to the baseline while others have low-moderate increases). For both RCP 4.5 (SSP 2-4.5) and RCP 8.5 (SSP 5-8.5) scenarios in 2050, a majority of buildings experience the lowest exposure band. This trend only reverses in an RCP 8.5 (SSP 5-8.5) warming scenario in 2080. While the impacts of rising temperatures are likely to be felt globally, the impacts are unlikely to be felt equally. Exposure to extreme heat could cause stress to equipment (including HVAC) that could lead to vulnerabilities to GSA's operations.

Extreme Precipitation

Similar to extreme heat, nearly all buildings under GSA's jurisdiction, custody or control are anticipated to see an increase in extreme precipitation by 2050 and 2080. However, a few locations are projected to experience a decrease in extreme precipitation. A majority of buildings see minor to moderate increases in

[4] **Note:** Decisions regarding architectural and engineering design for climate adaptation measures in real property are not based on exposure or changes in mean values; rather, they are based on a technical analysis of the envelope of conditions which allow reliable performance of a given system or component and characterization of climate change exposure, forcings, and timing that exceed the performance envelope and require adaptation to meet the mission or to support reliable performance. This includes determination of methods to monitor and evaluate indicators/thresholds for prudent asset management and fiscal responsibility and the use of policy and practice relevant data and information from the latest NCA or IPCC regarding observed current greenhouse gas emissions.

extreme precipitation in both RCP 4.5 (SSP 2-4.5) and RCP 8.5 (SSP 5-8.5) scenarios in 2050, with a small minority seeing significant changes from the historical baseline. This trend is projected to reverse only for an RCP 8.5 (SSP 5-8.5) scenario in 2080. Extreme precipitation can cause localized flooding and subsequently damage to the property and building.

Sea Level Rise

Because a majority of buildings are located away from coastlines, there is a small minority of buildings with exposure to sea level rise. There is a slightly higher exposure within a 2080 timeframe, though the differences between the two climate scenarios are minor. Sea level rise at buildings can cause erosion around building foundations and disrupt operations and services.

Flood

When evaluating new properties, GSA considers whether the proposed location is within a floodplain. A small portion of federal buildings are located in floodplains, which helps in prioritization of these assets with high vulnerability. Flooding at buildings can cause damage to the structure and contents, as well as disrupt operations and services.

Wildfire

Buildings under GSA's jurisdiction, custody or control have the lowest exposure overall to wildfire than the other four climate hazards studied, with only 2 percent of the buildings with high to extreme wildfire risk. A majority of that risk is concentrated within the high category. Wildfires can cause extensive and severe damage to buildings and property, causing long-term disruption to operations.

2B. Climate Hazard Exposures and Impacts Affecting Federal Employees

Indicators of Exposure of Employees to Climate Hazards	RCP 4.5 2050	RCP 4.5 2080	RCP 8.5 2050	RCP 8.5 2080
Extreme Heat: Percent of employees duty-stationed in counties projected to be exposed to more days with temperatures exceeding the 99th percentile of daily maximum temperatures (calculated annually), from 1976-2005	99%	99%	99%	99%
Extreme Precipitation: Percent of employees duty-stationed in counties projected to be exposed to more days with precipitation amounts exceeding the 99th percentile of daily maximum precipitation amount (calculated annually), from 1976-2005	99%	99%	99%	99%
Sea Level Rise: Percent of employees duty-stationed in counties projected to be inundated by sea level rise	14%	46%	14%	50%

	High Risk	Very High Risk	Extreme Risk
Wildfire: Percent of employees duty-stationed in counties at highest risk to wildfire	6%	2%	2%

GSA employs approximately 12,700 employees across the United States, which includes employees working from alternate locations. Similar to buildings, employees are exposed to a variety of climate hazards due to their large geographic coverage. Because GSA employees have duties suitable for telework,[5] workers have flexibility to relocate their workspace to an appropriate alternate worksite[6] outside impacted communities in the event of an emergency situation,[7] including a climate-related incident. This adaptation flexibility is not reflected in these hazard metrics. The exposure analysis summarized in the tables above include five key climate hazards: extreme heat, extreme precipitation, sea level rise, flood, and wildfire. These hazards were analyzed along two time horizons, inclusive of both present-day exposure for flood and wildfire and future exposure (at 2050 and 2080) for extreme heat, extreme precipitation, and sea level rise.

These five hazards can cause health and safety concerns for employees due to the exposure to extreme weather variations, as well as render federal sites inaccessible due to building or infrastructure damage. In addition, disruptions to the communities that employees live in can cause further humanitarian and welfare concerns. Further insights are detailed in the sections below and Section 3 describes the planned adaptation and mitigation measures.

[5] Telework is "a work flexibility or arrangement under which an employee performs the duties and responsibilities of their position from an approved alternative worksite (typically their home), rather than an agency worksite." GSA Telework and Remote Work Policy
[6] An appropriate alternate worksite is "a worksite other than the agency worksite, typically the employee's residence, that supports work and provides appropriate information technology (IT) connectivity and security precautions in support of the work." GSA Telework and Remote Work Policy
[7] An emergency situation is "an event, incident, or circumstance that interrupts or compromises operations at, or travel to or from, the agency worksite or appropriate alternative worksite." GSA Telework and Remote Work Policy

Extreme Heat

While all employees are anticipated to see some increase in extreme heat by 2050 and 2080, there is a variety in the exposure severity. By 2050, a RCP 4.5 (SSP 2-4.5) scenario sees lower levels of temperature increases, while RCP 8.5 (SSP 5-8.5) sees more significant increases. This trend is exaggerated even further when extended to 2080.

Extreme Precipitation

Similar to extreme heat, all employees are anticipated to see an increase in extreme precipitation by 2050 and 2080. However, a few locations have employees that are projected to experience a decrease in extreme precipitation. By 2050, a majority of employees see a minor increase in extreme precipitation for an RCP 4.5 (SSP 2-4.5) scenario, though there is a higher increase when projected out to 2080. For RCP 8.5 (SSP 5-8.5), there is a moderate increase in extreme precipitation in 2050 with a more significant increase in 2080.

Sea Level Rise

The result shows a higher percentage of employees exposed to sea level rise than for buildings, but that difference is due to the broader inclusion of employees' communities in the analysis and the higher concentration of GSA employees located either on the East or West coast (but not necessarily in coastal flood hazard areas). While a higher proportion of employees' communities are exposed, the vast majority of these employees' communities are in the lowest exposure band. The exposure increases along both scenarios when comparing 2050 to 2080. These results can be informative for existing and future practices for workforce flexibility to support delivery of GSA's mission.

Wildfire

Similar to the building analysis, a very low percentage of federal employees are exposed to high to extreme wildfire risk. A majority of this risk is concentrated within the high category rather than very high or extreme.

2C. Climate Hazard Exposures and Impacts Affecting Federal Lands, Waters and Cultural Resources

Federal Asset	Current Climate Hazard Impact or Exposure	Future Climate Hazard Impact or Exposure
Federal lands and historic buildings	Because federal lands and historic properties are considered in combination with buildings, they are exposed to similar hazards as described in Table 2A. Currently, these properties experience low exposure to flood and wildfire.	As shown in Table 2A, the most significant exposure to federal lands and historic properties are related to extreme heat and precipitation. These climate hazards are expected to impact a majority of properties along each climate scenario and timeframe.

GSA preserves over 500 historic properties through the Center for Historic Buildings, which are included in GSA's reported federally-owned real property assets. The exposure to these assets is represented by the analysis completed for federal buildings under GSA's jurisdiction, custody and control in Section 2A.

The most significant exposure risk to historic properties is due to long-term heat exposure, which may degrade building facades and materials, potentially pushing them beyond design thresholds. Higher temperatures are also altering environments where some insects such as termites can thrive, which can result in major structural damages. These patterns can be detrimental to GSA's historic buildings and artifacts, which are already at greater risk due to limitations on modifications for preservation purposes; warmer temperatures and increased humidity can increase material/structure deterioration of these assets.

In addition, the federal lands under GSA's jurisdiction, custody and control (GSA-controlled federally owned) are mostly represented by the surrounding land of federal buildings, such as parking lots, industrial lots, storage, or otherwise vacant lands. The maintenance and operation of these lands falls under similar jurisdiction as that for federal buildings. Similar to historic buildings, the exposure of these lands are represented by the buildings analysis completed in Section 2A.

2D. 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**
Climate hazard impacts on GSA's mission, operations, and services outside of building operations (which are included within the exposure analysis to buildings in Section 2A) include organizational management (e.g., financial/budget accounting, risk management, strategy), acquisition and supply chain.	The main hazards identified by the analysis for federal buildings and employees, which represents the operational and service-related threats, include extreme heat and extreme precipitation. Suppliers located within the United States may see regional differences in climate exposure, such as increased wildfire risk in the west, increased sea level rise exposure near coastlines, and higher flood exposure within flood plains.	Climate hazards can cause threats to the health and safety of federal employees, making it difficult for them to complete their responsibilities due to building or community damage and disruption. Within the acquisition and supply chain, climate hazard impacts are more widespread and difficult to manage due to the operational authority lying outside of the agency's jurisdiction.

GSA personnel completing work for the agency, including those related to GSA's mission, operations, and services, will be exposed to the same climate hazards as indicated by the building and employee analysis. Emergency telework[8] options can reduce these threats but cannot eliminate them. For example, the workforce who delivers GSA's mission, operations, and services may be unable to work due to extreme weather events, as these events can impact entire communities and create disruptions beyond those to federal buildings.

For acquisition and the supply chain, threats to data centers and GSA's supplier facilities from extreme precipitation and flooding impact the capability to deliver, potentially resulting in loss of goods and access to facilities. Additionally, upstream and downstream impacts require more understanding to manage risks and increase adaptive capacity. Downstream impacts may consist of delayed delivery of goods and services.

[8] Emergency telework is "telework performed in response to an authorized emergency situation, as outlined in paragraph 3.7" of the GSA Telework and Remote Work Policy

Section 3: Implementation Plan

3A. Addressing Climate Hazard Impacts and Exposure

1. Addressing Climate Hazard Exposures and Impacts Affecting Federal Buildings

Note: Two of GSA's priority actions are listed below. Other actions are included in Section 4A. Not all actions are directly related to the exposure to climate hazard impacts to federal buildings. Given experiences with COVID-19 and extreme weather events, networks and access to data and information systems are the most consequential items to support continued mission execution for many federal agencies. The implications to fiscal risk, statutory mission and the needed alterations in governance, strategy and risk management are complex. There are significant repercussions to the agency's organizational, technical, and financial capacities, which are far beyond the simplistic exposure identification listed below.

Prioritized Actions to Address Climate Hazard Exposures and Impacts Affecting Federal Buildings

Climate Hazard Impact on and/or Exposure to Buildings	Priority Action	Timeline for Implementation (2024-2027)
Flooding. Flooding can severely damage federal facilities and impact an agency's operations and ability to fulfill its mission. Federal buildings in special flood hazard areas can require special mitigation measures, such as structure elevation, building system and cabling placement, and additional protection for the building enclosure at and below grade.	Obtain localized data to evaluate flooding risk to GSA-controlled federally owned buildings, develop portfolio-wide vertical datum *(i.e., height above mean sea level),* and integrate it into portfolio management systems, asset business planning and site acquisition guidance. Without portfolio-wide vertical datum and information, it is not possible to accurately evaluate flood vulnerabilities for buildings (or other horizontal assets) due to outdated FEMA flood maps and subsequently to accurately estimate flood mitigation project costs and time frames for project execution.[9]	Funding was allocated in 2023 from the Inflation Reduction Act (IRA) toward this priority action; scope will need to align with the recent issuance of OMB M-24-03 (11/29/2023) for the Disaster Resiliency Planning Act (P.L. 117-221 12/5/2022). **FY2024:** Scope to support objectives of OMB M-24-03 (11/29/2023). Determine executive leadership and designate staff resources. **FY2024-FY2025**: Develop a statement of work for contract. **FY2025-FY2025:** Award, manage contract. **FY2025-FY2027:** Integrate into asset management and investment decisions.

[9] Priority action supports policy GSA PBS 1095.8A, Floodplain Management. https://www.gsa.gov/directives-library/floodplain-management-1 and P100, Facilities Standards. https://www.gsa.gov/real-estate/design-and-construction/engineering/facilities-standards-for-the-public-buildings-service?

Climate Hazard Impact on and/or Exposure to Buildings	Priority Action	Timeline for Implementation (2024-2027)
Extreme Heat, Extreme Precipitation, Sea Level Rise, Flood, and Wildfire. Given GSA's repair backlog, extreme weather events present significant risks to the federal real estate portfolio. Failure to mitigate these risks could result in even costlier expenditures following a natural disaster. Extreme heat and precipitation are the hazards with the largest exposure to federal buildings (96-100%), which can cause damage to roads, limit site access and accelerate building deterioration. While the other hazards have lower exposure, site-specific impacts can have higher criticality and should be monitored together with high exposure hazards at a national level.	Deploy the updated Building Assessment Tool (BAT), to advance methods to monitor and evaluate observed changes in loads due to changing climatic conditions and inform prudent capital investment and asset management. The BAT serves as a strategic planning tool for assessing and analyzing the reinvestment requirements of GSA-controlled federally owned real property portfolio, including identifying liabilities for repair and alterations projects, and consolidating and prioritizing building deficiencies through survey inspections.	**FY2023-FY2024:** Develop training for current and future BAT users so they can understand, extract, and apply outputs from the updated tool as data is collected in following years (see below). **FY2023-FY2025:** Incrementally modify the BAT survey to incorporate climate change risks and subsequent building liabilities**.** **FY2026-FY2027:** Extract, and apply outputs from data collected. As needed, update user training.

Per OMB M-24-03 (11/29/2023) for the Disaster Resiliency Planning Act (P.L. 117-221 12/5/2022), GSA has provided a description below of its existing risk-management activities, which address the requirements as part of GSA's real property management and investment decisions. These actions expand upon and are inclusive of the priority actions in the table above. These include the following: criteria and requirements development for natural hazard and climate vulnerability assessments for real property managed by the agency; criteria and requirements development on risks posed by the assessed natural hazard and climate exposures to the agency's operations or programs for significantly at-risk real property. Architectural and engineering design modifications, and improvements in operational practices to protect employee working conditions are described below.

Given the timing of the OMB M-24-03 guidance, GSA is not able, during this reporting cycle, to provide information on changes to agency asset management and investment decisions as a result of incorporating natural hazard and climate risk information in real property management decisions. GSA is also not able, during this reporting cycle, to characterize whether climate sensitive real property assets will be repurposed, or if their functions will be relocated to a lower-risk property. In addition, GSA's is not able to characterize, during this reporting cycle, whether its real property asset management decisions will be to invest in low-risk areas and divest assets from locations that will be at risk in the future whether driven by planned relocation[10] or the stranding of assets.[11] Providing this information is dependent on multiple factors including availability of capital funding and alterations in governance, strategy and risk management and known barriers outlined in Section 4A. The business processes described below safeguard investments in federal real property, promote fiscal responsibility, and better equip GSA to manage the observed and expected changes in climate change and adapt to those changes.

Criteria & Requirements Development

New Construction and Major Modernization Projects

The Public Buildings Service (PBS) partners with its customer agencies and multiple design experts to evaluate the appropriate criteria and processes to design and construct sites and facilities that are climate-ready. This includes design standards and performance criteria required by the Facilities Standards for PBS, PBS-P100. Capital projects are flagged for review if they have an expected service life of at least 30 years, supply a mission-critical function or are designated as culturally or historically significant. These assets are mapped by their financial value and projected vulnerability.

The Office of Portfolio Management and Customer Engagement safeguards GSA's assets for their intended service life by integrating climate risk management methods into real estate portfolio management, asset business strategies, portfolio analysis, capital allocation, and other relevant activities. As capital investments are approved or significant reimbursable work is received from customers, GSA studies climate risk factors during the project formulation phase, which can help inform decisions for forthcoming space consolidation actions. Federal policy and variable and consistently inadequate funding levels can affect this process. The Office of Architecture and Engineering and Office of Project Delivery safeguards GSA's assets by integrating risk management methods into the creation of forward-looking design, facility standards, and performance

[10] "In human systems, planned relocation is a form of mobility in response to direct climate impacts and/or indirect economic costs of estimated and projected climate impacts. Planned relocation, also referred to as managed retreat, is typically initiated, supervised, and/or implemented by public, private, and civic stakeholders and involves small communities and individual assets but may also involve large populations." NCA 5 Glossary

[11] Stranded assets are defined as "assets that have suffered from unanticipated or premature write-downs, devaluations, or conversion to liabilities" Caldecott, B., Howarth, N., & McSharry, P. (2013). *Stranded assets in agriculture: Protecting value from environment-related risks. Stranded assets in agriculture: protecting value from environment-related risks*.)

criteria areas of urban development, architecture, engineering, construction services, and project management, as well as interagency relations and national professional organization liaisons in the aforementioned disciplines. GSA engages with pertinent code-making bodies to develop new standards, codes, and regulations that better equip sites and facilities to handle climate risks, comply with emerging standards (e.g., hurricane codes, wildfire smoke readiness) and incorporate climate adaptation and resilience as a fire and life-safety measure.

Process Improvements

Customer Engagement, Real Property Asset Management, and Building Operations and Maintenance

As customer agencies identify vulnerable mission-critical sites through their own climate change risk management activities and share this information with GSA, GSA partners with them to find and avoid maladaptation. Real property adaptation actions may vary across a spectrum of protection, accommodation, or retreat. Preparing agency staff to have the capability, confidence, and capacity to successfully implement this emergent aspect of risk management requires ongoing focus, resources, and leadership support.

Developing portfolio-wide vertical datum will advance building-specific understanding of sensitivity and exposure to flooding risk over time, which helps GSA prioritize facilities that require enhanced risk-management measures to minimize damage and disruption from flooding events, including protection of below-grade equipment by installing pumping stations and installation of above ground power sources for emergency backup to critical lighting and equipment.

PBS's Office of Facilities Management (OFM) issues operational guidance for extreme heat and cold conditions to manage occupant thermal comfort and energy demand, as well as to assist federal staff with planning for interruption of utilities and disruption of customer services to surrounding communities. In partnership with the GSA Office of Federal High-Performance Green Buildings, OFM plans to continue the piloting of remote indoor environmental quality and occupancy sensor networks to protect occupants, reduce risks from outdoor contaminants and improve employee comfort and safety against climate-driven hazards. OFM's Guiding Principles for Existing Buildings program includes climate-risk and climate-adaptation criteria as part of its 4-year reassessment process.

Equitable Distribution of Environmental Risks and Benefits

The GSA Center for Urban Development/Good Neighbor Program works with GSA's regional project teams to help coordinate activity with local government planning efforts to maximize benefits for host communities and align federal facilities siting and design needs to the greatest extent possible with local-planning and economic-development goals.

2. Addressing Climate Hazard Exposures and Impacts Affecting Federal Employees

Note: GSA's priority actions are categorized underneath climate hazard impacts to federal buildings (Section 3A-1) and within Section 4A. Not all actions are directly related to the exposure to climate hazard impacts to federal employees. Given experiences with COVID-19 and extreme weather events, networks and access to data and information systems are the most consequential items to support continued mission execution for many federal agencies. The implications to fiscal risk, statutory mission and the needed alterations in governance, strategy and risk management are complex. There are significant repercussions to the agency organizational, technical, and financial capacities, which are far beyond the simplistic exposure identification listed below.

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)**
Extreme Heat, Extreme Precipitation, Sea Level Rise, Flood, and Wildfire. The exposure of GSA federal employees to climate hazards across the United States can cause health and safety concerns due to the exposure to extreme weather variations and the inability to access federal sites due to building or infrastructure damage. In addition, disruptions to the communities that employees live in can cause further humanitarian and welfare concerns. Extreme heat and precipitation are the hazards with the largest exposure for federal employees (99-100%). While the other hazards have lower exposure, community-specific impacts can have higher criticality and lead to issues such as indoor air-quality concerns, respiratory-health issues, and threats to employee safety. These hazards and impacts vary by region and location of facilities.	The priority actions listed in Section 3A-1 related to federal buildings also have the co-benefit of advancing adaptive capacity for federal employees working at those locations. See Section 3A-1 for more details on the specific actions. To support the safety and resilience of federal employees, GSA has also implemented a Telework and Remote Work Policy (HRM 6040.1C) allowing personnel, where duties and authority allow, to work from alternate locations during climate-related disruptions. In addition, climate literacy for GSA employees not only helps GSA's operations advance readiness to climate and other impacts, but also can bolster employee climate readiness in their own homes and communities. See Section 3C for more details on GSA's climate literacy program.	See Sections 3A-1 and 3C for more details on the implementation timeline and priority actions related to federal employee benefits.

All people, including federal employees and external stakeholders, are exposed to the effects of climate change. Many are already vulnerable to these effects, including heat waves, extreme precipitation, sea level rise, flood, wildfire, and wildfire smoke. The observed changes are already having an impact on workplace health and safety and have disrupted access to federal sites and systems. The federal workforce will need to build capacity to cope with and adapt to climate-change impacts within the workplace. This is and will continue to be challenging, as climate risk management is complex and requires a coordinated effort. By enhancing capacity to deal with climate-change impacts in the workplace, GSA's climate-adaptation measures build and foster social resilience among the federal workforce, bolstering the critical resource of human capital.

Based on the provisions of the Telework Enhancement Act of 2010 (P.L. 111-292), as amended by the Administrative Leave Act of 2016, GSA has implemented a Telework and Remote Work Policy allowing personnel the flexibility to work from an alternate location under certain circumstances. While not applicable to all roles and duties, this policy enables GSA personnel, including remote employees,[12] to relocate workstations in the event of an interruption to site access or an incident which prompts the need for relocation or replication of duties at alternate sites. This unscheduled telework[13] or workstation relocation ability is provided to personnel, outside of established routine teleworking[14] and remote work agreements, and is issued in response to emergency situations under specific announcements and approval by OPM or local agency authorizing officials, as outlined in GSA's Dismissal and Closure Procedures. This flexibility enhances GSA's adaptive capacity to climate hazards at GSA facilities when facilities are closed. GSA leads and supports several emergency initiatives to support employees and the public with tools and resources in response to severe weather events. If these flexible policies were not in place, GSA's adaptive capacity to climate disruptions would be compromised during extreme weather incidents such as heat and cold waves, urban flooding, storm surge, convective storms, wildfires, wildfire-smoke migration, and extreme precipitation whether it be rain, snow, or ice.

[12] A remote employee is "an employee who teleworks on a full-time basis and does not report to the agency worksite at least two times a pay period on a regular and recurring basis (e.g., employee works from home full-time). A remote worker's official worksite/duty station is an appropriate alternative worksite, typically the employee's home" GSA Telework and Remote Work Policy

[13] Unscheduled telework is "a form of telework that allows employees to telework without previous supervisory approval in response to specific announcements by OPM or local agency authorizing officials regarding approved emergency situations" GSA Telework and Remote Work Policy

[14] Routine teleworking is "telework performed as part of a previously approved, ongoing, and regular schedule." GSA Telework and Remote Work Policy

3. Addressing Climate Hazard Exposures and Impacts Affecting Federal Cultural Resources

Prioritized Actions to Address Climate Hazard Exposures and Impacts Affecting Federal Cultural Resources		
Type of Asset	**Climate Hazard Impact on and/or Exposure to the Asset**	**Priority Action**
GSA oversees and maintains over 500 historic sites, including buildings, as part of GSA's responsibility to preserve cultural resources. The maintenance and operation of these sites falls under the Center for Historic Buildings.	Because historic sites and buildings are considered together with GSA-controlled federally owned buildings, they are exposed to similar hazards (see Table 2A). Currently, these properties experience low exposure to flood and wildfire. The most significant future climate exposure is related to long-term heat exposure, which may accelerate the degradation of historic buildings and promote insect infestations and damage.	See Sections 3A-1 for details on the implementation timeline and priority actions related to historic sites and buildings, which fall under the jurisdiction of federal building management and adaptation measures.

3B. Climate-Resilient Operations

1. Integrating Climate Risks in Planning and Decision Making

GSA has established methods of including results of its climate vulnerability assessments (CVA) into its risk management, planning and decision-making processes. The CVA is distributed together with guidance as part of agency risk management activities to GSA's Senior Leadership, Senior Risk Official, Chief Real Property Officer and Senior Procurement Executive and others, per the OMB A-11 Circular. In addition, the 2021 Climate Change Risk Management Plan (CCRMP), progress reports from 2022 and verbal updates from 2023 also serve as effective resources for the agency, as well as plans prior to 2017.

As with all risk-management activities, senior leadership is required for the effective management of climate risks and opportunities. The Office of Management and Budget (OMB) annual Circular A-11[15] emphasizes the importance of managing risk due to the observed and expected changes in climate across agency leadership roles and entities that have accountability, responsibility, and authority to manage agency risks. Integration of climate-risk management and climate-adaptation measures across strategic goals and objectives, performance management activities, and risk activities is paramount to GSA's ability to manage and respond to vulnerabilities due to the observed and expected changes in climate. Leadership is critical to maintain strategic direction and allocate resources commensurate to both the demand and the complexity of the challenge.[16]

[15] a11.pdf (whitehouse.gov) Capital Programming Guide Appendix 13
[16] OMB issues the *Analytical Perspectives of the Federal Budget Exposure to Climate Risk*. FY 2025 is available.

2. Incorporating Climate Vulnerability Assessment into Budget Planning

The OCFO Office of Budget oversees the formulation, execution, and review of GSA's federal budget. GSA's budget team works closely with GSA's program offices and OMB to estimate the needed resources and dollars for achieving goals set centrally and across offices and coordinates all budget and spending issues. Annual budget requests are submitted to OMB and justification for requested funds are provided yearly to Congress. The Office of Budget is also responsible for monitoring and reporting on budgets to enable programs to have what they need to accomplish their missions and that they efficiently execute funds.

GSA has an agency-wide process that incorporates climate risk into planning and budget decisions by responding to the OMB directions for the Annual Budget Formulation and Annual Financial Reporting.[17,18] GSA's Office of the Chief Financial Officer (OCFO) responds to OMB's directions for annual budget formulation with its Annual Financial Report. This incorporates relevant climate risks into its financial reporting and enterprise risk management processes based on direction by OMB. OCFO is the agency lead for risk disclosure and management and internal controls.

As stated above in the narrative of Section 3A - 1, the extent to which response to or preparedness for climate risks for physical—not transition risks[19] —are used to inform budget formulation is maturing (See Barriers Section 4B. Budget formulation relies on accurate financial accounting of prior expenditures and revenues, whether climate informed or not. GSA's next steps include determination of appropriate skills and competencies, the form and the frequency of updates, and use of existing controls and procedures to support oversight of climate-related risks and opportunities. GSA pursues meaningful implementation to advance effective risk management, trade-offs, and relevant metrics and targets (See Barriers 4B).[20]

The financial risks of climate change pose such a significant threat that "Limiting the Federal Government's Fiscal Exposure by Better Managing Climate Change Risks" has been on the U.S. Government Accountability Office's High-Risk List for over 10 years. Increased financial costs due to higher frequency, intensity, duration and geographic distribution of climate-related events result in budget challenges across GSA. Higher costs are observed and projected and will have direct impacts on the agency's revenue, expenditures, and balance sheet (assets/liabilities, capital/financing). Over time, impacts to GSA's budget are expected to rise given the projections for increasing damages from climate hazards. Opportunities to minimize or address these risks are feasible with additional lead time but will be highly dependent on current investments and actions to help confront climate risks through adapting existing assets and advancing readiness in the supply of goods and services.

GSA leverages a platform to create and track national priority codes, which allows GSA to categorize spending related to natural disasters and assess financial impacts. The budget team has a strong technical capacity in terms of the system configurations for tracking; however, not all financial risks associated with climate are captured or monitored.

[17] OMB issues the *Analytical Perspectives of the Federal Budget Exposure to Climate Risk*. FY 2025 is available.
[18] OMB issues Climate Risk Exposure white papers (2024) and includes climate change in the Long-Term Budget Outlook
[19] NCA 5 Glossary "Transition risk: A risk associated with uncertain impacts, including financial and economic, that could result from a transition to a net-zero emissions economy."
[20] Federal Accounting Standards Advisory Board (FASAB) is assessing the International Sustainability Standard Board's (ISBB) International Financial Reporting Standards (IFRS) S2 Climate Related Disclosures (incorporates sunsetted TCFD 4 core recommendations)as part of its climate related financial reporting project.

GSA voluntarily disclosed its climate-related financial risks for FY 2022 and FY 2023 in the Agency Financial Report.

PBS is investing approximately $7 billion from the Bipartisan Infrastructure Law and Inflation Reduction Act into GSA-controlled federally owned assets. These investments enhance the safety and security of our borders and make GSA-controlled federally owned buildings more sustainable, higher performing, and more cost-efficient through installing next-generation technologies and low-embodied carbon materials. This significant investment is chiefly directed to the climate-change response[21] of the reduction of greenhouse gas through emissions mitigation.[22] The investment is not directed specifically toward the climate-change response of adaptation[23] and the risk-management activities required to adjust to the observed and expected changes in climate. As a result, progress to fully respond to climate change is limited.

[21] NCA 5 Responses to Climate Change: https://nca2023.globalchange.gov/responses/
[22] Emissions Mitigation Response to Climate Change: https://nca2023.globalchange.gov/chapter/32/
[23] Climate Adaptation Response to Climate Change: https://nca2023.globalchange.gov/chapter/31/

3. Incorporating Climate Risk into Policy and Programs

As the Federal Government's leading provider of acquisition services and schedules, GSA works closely with thousands of suppliers. The agency recognizes the threat posed by supply-chain disruptions and is working with partners to mitigate the effects on mission execution. GSA will continue to develop, prioritize, implement, and evaluate actions to integrate plausible projected climate conditions into its mission, programs, management functions, and decision points, so the agency can continually build its adaptive capacity, climate resilience, equity, and access. GSA will continue to consider and address climate-change impacts when undertaking long-term planning, setting priorities for research and investigations, and informing decisions affecting GSA resources, programs, acquisitions, policies, and operations. In tandem with these efforts, environmental justice considerations will be factored into the planning and implementation process in close collaboration with the agency's lead on environmental justice and consistent with this Plan.

GSA will continue to coordinate with other federal departments and agencies and interagency efforts, including the National Climate Task Force and its multiple interagency working groups. GSA will also continue to collaborate on matters that cross agency jurisdictions, such as the National Climate Resilience Framework and future measures needed including a National Climate Adaptation Strategy and Plan (See Section 4A). GSA will continue to share climate change adaptation planning information within GSA and continue to convey this information with its customer agencies and other coordinating federal departments and agencies.

Climate Adaptation and Resilience/ Climate Risk Management

Across GSA, relevant business lines and programs continue to assess where, when, and how forward-looking climate information and data supports informed decision-making and risk management in alignment with OMB Circular A-11. Because there are material and fiscal implications that affect both real property and supply chain decision-making primarily impacting policy and guidance documents and some regulations, GSA has integrated these factors into its risk-management activities over a time period outside of recent reporting efforts. Additionally, given the recent issuance of OMB M-24-03 (11/29/2023) for the Disaster Resiliency Planning Act (P.L. 117-221, 12/5/2022), asset management policies need review and modernization to manage climate risks (See Section 4A for additional information).

GSA's efforts to modernize policies to manage climate risks leverage the bi-annual risk survey, GSA's updated climate-vulnerability assessment, and ongoing observations of the costs of inaction to manage climate risks, adapt physical infrastructure, and enhance readiness across the supply of mission-critical goods and services and emergency planning. These efforts primarily address physical risks and implications across GSA's governance, strategy, risk management, metrics and targets. This plan does not address the known transition risks and implications across the same topics.

Some examples of GSA integrating climate risk into policies and programs include the following: updates to the General Services Administration Acquisition Manual (GSAM) to include climate risk management factors during planning; an Acquisition Letter prompting acquisition innovation in response to climate change; a process map to identify where forward-looking climate information is needed to inform material and fiscal decisions for PBS and FAS; updates to enterprise-wide representation of FAS and PBS to agency customers and integrating climate-risk management measures in response to needs of agency customers; and a current natural and climate hazards viewer for GSA's inventory to help agencies self-identify risks associated with their lease spaces.

Nature-Based Solutions

As relevant in the architectural and engineering design of capital projects and ensuring life safety, GSA incorporates nature-based solutions into policies and site guidance, as well as into projects. Nature-based solutions are known to be highly effective and create multiple benefits, including human, economic, and ecosystem health. They can be deployed in a number of different ways and are a fundamental pillar of fighting the twofold biodiversity and climate crisis as natural solutions can reduce emissions, sequester carbon from the atmosphere, make ecosystems more resilient, and reduce operational climate risks for government tenants and visitors of federal sites.

Through the PBS-P100 Facility Standards, GSA requires that capital projects with significant site work must earn at minimum a SITES Silver certification from the Green Business Certification Inc., a third-party certifier of sustainable landscapes. SITES is modeled after the concept of ecosystem services and the inherent but often unaccounted for benefits we receive from nature and natural systems. The SITES framework is organized by sections and performance goals that can be met through incorporation of nature-based solutions in projects. Furthermore, to support understanding and compliance with the Energy Independence and Security Act section 438, which governs management of stormwater runoff quantities on federal land, GSA issued a memorandum entitled "Compliance with Section 438 (Stormwater) Requirements of the Energy Independence and Security Act of 2007," which outlines a spatial nature-based approach to infiltrate stormwater on federal sites in order to comply with meeting pre-development hydrology requirements.

Environmental Justice

GSA is advancing environmental justice as part of its mission, consistent with Executive Order 14008 and with EO 14096 on *Revitalizing Our Nation's Commitment to Environmental Justice for All*. As GSA implements its Climate Change Risk Management Plan, the agency will, as appropriate and consistent with applicable law: address disproportionate and adverse environmental and health effects (including risks) and hazards, including those related to climate change and cumulative impacts of environmental and other burdens on communities with environmental justice concerns; and, 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, GSA received recommendations on Climate Planning, Preparedness, Response, Recovery and Impacts from the White House Environmental Justice Advisory Council (WHEJAC). The report includes many recommendations that are relevant to GSA's work. GSA is reviewing the recommendations and, as appropriate and to the maximum extent permitted by law, is taking steps to address the WHEJAC's recommendations.

As noted in Section 4A, Environmental Justice is a systematic effort that merits elevation outside of this Plan. All climate adaptation measures must avoid maladaptation[24] and support outcomes to advance Environmental Justice. Content provided here is for reference only and does not encompass the scale and scope of environmental justice efforts and connected workstreams across GSA.

GSA is responding to environmental justice issues that affect both our federal customers and the communities they directly serve, in particular, communities with environmental justice concerns. As GSA's customers

[24] NCA 5 Glossary : Maladaptation occurs when actions are taken that may lead to increased risk of adverse climate-related outcomes, including via increased greenhouse gas emissions, increased or shifted vulnerability to climate change, more inequitable outcomes, or diminished welfare, now or in the future. Most often, maladaptation is an unintended consequence.[7]

determine their climate vulnerable mission-critical sites and supply-chain components, GSA collaborates to identify and avoid maladaptation—actions that increase vulnerability to climate risks rather than reducing them. Real property climate adaptation actions may vary across a spectrum of protection, accommodation, or retreat. Supply chain adaptation actions may vary across a spectrum of planning for disruption, minimizing damage, or damage control. Customer agencies should partner with GSA to modernize their requirements reflecting how a changing climate, in conjunction with other socio-economic and demographic trends, affects their agency mission and develop their capacity to support communities with environmental justice concerns directly in support of their missions.

To address these issues affecting customers and communities, GSA chartered the Environmental Justice Committee (EJC), an internal working group chaired by the Office of Civil Rights (OCR). Through the EJC, OCR is leading collaborative intra-agency efforts to advance Environmental Justice initiatives across GSA through two key initiatives. GSA is developing its Environmental Justice Strategic Plan, consistent with Executive Order 14096, due to the White House in October 2024 at the latest. Further GSA is developing its Phase Two EJ Scorecard, due to CEQ in May 2024. Additionally, GSA has underlined environmental justice in the FY 2022-2026 Strategic Initiative Plan and plans to identify and implement programs that positively impact communities with environmental justice concerns through enhanced economic activity.

Tribal Nations

Tribal consultation is a stand-alone federal requirement, but it is often carried out in conjunction with Section 106 review of a proposed undertaking. As an agency that manages, constructs, disposes, and acquires federal real property, GSA has a responsibility to engage Indian tribes, Alaska Native Villages and Native Hawaiian Organizations through meaningful consultation, on a government-to-government basis. The Center for Historic Buildings (CHB), within the Office of Architecture and Engineering, is responsible for ensuring that GSA fulfills its tribal consultation responsibilities. The GSA Regional Historic Preservation Officers implement tribal consultation with support from CHB as early in project planning as possible so that projects can remain on schedule and tribes are given the opportunity to provide input on projects that might impact tribal interests. Climate adaptation topics may arise during these activities.

In accordance with GSA policy, this work is overseen by GSA's Federal Preservation Officer and implemented by regional preservation personnel. Section 106 Tribal consultation is required not only for projects that may impact current Tribal lands but also those that may impact ancestral lands from which tribes have been displaced, which constitutes most of GSA's consultations. In addition to these requirements, GSA has also updated the project profiles for the Land Ports of Entry (LPOEs) funded through the Bipartisan Infrastructure Law (BIL) so that Indigenous Traditional Ecological Knowledge (ITEK) is considered, as appropriate, and to avoid maladaptation in addition to the stand-alone federal requirements for Tribal consultation.

Co-Benefits of Adaptation

GSA's BIL and IRA appropriations were purpose limited and focused on different objectives and responses to climate change, specifically emissions mitigation of greenhouse gasses via the use of specific low-embodied carbon materials and electrification of systems. Given this, measures to safeguard federal assets from the observed and expected changes in climate are included in capital projects solely as part of risk-management activities. Climate-adaptation measures can safeguard these investments, but trade-offs and the final decision to integrate climate risk management solutions is dependent upon the customers' risk tolerance and budget constraints.

Through the BIL, GSA is modernizing LPOEs along the Canadian and Mexican borders. The BIL includes $3.4 billion for GSA to undertake 26 major construction and modernization projects at LPOEs along with paving, mission improvement to benefit the Federal Motor Carrier Safety Administration, and purchase of several leased LPOEs. GSA used forward-looking climate information to develop profiles that assess climate risks at each site. The profiles are used by the project's licensed design professionals to develop robust, adaptive strategies for the intended service life of the asset. The project approval, funding, and implementation take place over multiple years, and the final A-123 decision to integrate the advised climate risk management solutions is dependent upon a customers' risk tolerance and budget constraints.

4. Climate-Smart Supply Chains and Procurement

At risk supplies/services	Outline Actions to Address Hazard(s)	Identify Progress Toward Addressing Hazard(s)
From agency demand, projected exposure and sensitivity to climate risks, the top five critical supplies and services that FAS procures are: - Telecommunications - Motor vehicles and fleet - Professional services (due to reliance on telecom and IT) - IT hardware - IT services (including software and security). Climate hazards identified as higher risk for these suppliers include flooding and urban storm surge.	The FAS Acquisition Council (FAC) will begin reviewing external-facing acquisitions in these areas valued at $100 million or greater (inclusive of all options) so that climate risk is considered at various phases of the acquisition life cycle.	FAS integrated climate risk management reporting requirements and basic climate risk mitigation practices into several solicitations, and to date, awarded a $50 billion telecommunications contract, and two blanket purchase agreements with an estimated spend of $457 million. GSA developed a decision diagram detailing where climate risk management needs to be considered during the acquisition process for the GSA acquisition workforce, and incorporated the resource in GSA's governmentwide course, *Integrating Sustainable Acquisition.* GSA is participating in the Sustainability Check Initiative, led by OMB, CEQ, and EPA. The goal of this initiative is to advance federal sustainable procurement by increasing compliance with federal sustainable procurement requirements in major contract vehicles and encouraging innovative sustainability approaches in contracts, going beyond compliance. GSA leads six governmentwide categories, ensuring Best-in-Class contract solutions receive the "Sustainability Check."

There are several factors that contribute to the vulnerability of global supply chains, its infrastructure, and GSA's provision of services internally and to its customers, including the exposure to climate hazards, the asset or service's sensitivity to them, and the adaptive capacity of the agency's operations. In addition, it is also a function of the materials and services outside of GSA's control, such as transportation infrastructure, raw materials, processing facilities, and energy providers.

Efforts to understand and implement climate risk management are implemented throughout the federal government. For example, OMB releases their annual Circular A-11 with instructions for budget preparations, and in 2022, the A-11 was revised to include the importance of managing risk due to the observed and expected changes in climate, including for acquisition services.

The top critical supplies and services for GSA were analyzed based on agency demand, projected exposure, sensitivity, and adaptive capacity to climate risks. This assessment aligned with ISO 14091:2021 Adaptation to Climate Change Guidelines on Vulnerability, Impacts, and Risk Assessment and utilized feedback from subject matter experts from across GSA's business lines to evaluate the relationship between supplies/services and climate hazards.

GSA has already incorporated several measures to build a climate-resilient supply chain, including:

- In 2021, GSA released an Acquisition Letter that identifies sustainable acquisition considerations for procurement strategies and requires greater detail on climate in acquisition plans.
- Climate-risk requirements have been incorporated into two awarded actions in FY 2023, with a combined spend of $457 million. Contractors are required to submit a climate risk management plan as a post-award deliverable and provide an overview of actions taken to adapt to the identified climate risks. These requirements are intended to encourage industry to adapt to a changing climate, increase understanding of the climate-related risks associated with FAS's goods and services, and allow FAS to improve its climate-related requirements over time.
- GSA is inviting Federal Supply Schedule contractors to voluntarily measure, track, and disclose their climate-related risks to CDP. Contractors that choose to participate provide information on their process for identifying, assessing, and responding to climate-related risks and opportunities, and their climate-related risks with the potential to have a substantive financial impact on business.
- GSA created the GSA Acquisition Policy Federal Advisory Committee, which advises the agency on using acquisition tools and authorities to target high-priority challenges, such as addressing climate risks and sustainability considerations within federal acquisition.
- To help federal agencies assess their own vulnerability and manage climate-related supply chain risks, GSA developed and maintains a framework for Managing Climate Disruption Risks to Federal Agency Supply Chains. The framework outlines the process for assessing climate risks to supply chains and formulating plans to minimize those risks.
- GSA developed a Climate Change Risk Management Checklist to assist the acquisition workforce in identifying climate change risks throughout the acquisition lifecycle, available on the Sustainable Facilities Tool (sftool.gov).
- FAS also updated the Acquisition Plan template, utilized by the FAS acquisition workforce, to include additional climate risk considerations for acquisitions at risk of disruption by acute or chronic long-term climate change.

GSA will continue to incorporate climate risk management considerations into acquisitions for the most critical supplies and services at risk to disruption by acute or chronic long-term climate change. To protect the most vulnerable supplies, the agency will work to locate a diverse pool of contractors with a focus on "Made in America," when available. GSA will also open communications with its contractors to further understand their risk-mitigation and logistics planning for these items. In addition, the agency will maintain an inventory of back-up IT hardware in its regional offices, especially those that are the most vulnerable to climate change.

Process Improvements

Acquisition Policy

The Office of Government-wide Policy is exploring amending acquisition planning policy in both the GSA Acquisition Regulation (GSAR) and the GSAM. GSAM, section 507.103 (c) Sustainability Strategies, was amended in early 2022 to read "Strategies to either mitigate or adapt to climate change can be explored during acquisition planning and should be clearly documented within the acquisition plan (see 507.105)."

Category Management

Category management is an approach the Federal Government applies to buy in a managed way reflecting the priorities of the Administration. It involves identifying core categories of spend, developing heightened levels of expertise, sharing best practices, providing streamlined solutions, and managing supply and demand, for each of the categories. As the lead agency for six categories, GSA will evaluate how to update the category-

management framework to include recognition of major climate risks on a category-by-category basis and consider opportunities to incorporate climate-adaptation considerations into best-in-class criteria.

Disaster Purchasing, Global Supply, and Retail Operations

As part of GSA's response to acute climate changes, the Disaster Purchasing Program (DPP) allows state and local governments to buy supplies and services directly from GSA to facilitate preparedness for and response to major disasters or disaster preparation. If an incident has a Presidential declaration under the Stafford Act, the DPP may be used for purchases for recovery. As extreme weather event patterns change, an increase in demand for products purchased by State and local governments is expected to cause changes in the types of products needed. The Global Supply and Retail Operations programs may adjust their offerings to customer agencies because of changing climate conditions.

Fleet

In addition to managing its own internal vehicle fleet, GSA supplies vehicle leasing and purchasing services to federal agencies. Vehicle assets are particularly vulnerable to extreme weather, creating issues with vehicle performance, fuel stability and quality, disruptions to fuel and electric-charging supply chains, and vehicle damage. The Office of Administrative Services (OAS), which manages GSA's internal fleet, will continue to participate in pilot programs to acquire and sustain the right type of vehicles for the location, including consideration of climate hazards over the life cycle of the vehicle lease.

Equitable Distribution of Environmental Risks and Benefits

GSA will work to advance equitable distribution of environmental risks and benefits and to avoid maladaptation by working with industry partners to develop and utilize acquisition best practices, to balance equity, economic recovery, and climate needs in the acquisition process. Beyond these activities, Action 1 in this Plan includes the key areas/programs where climate-adaptation efforts occur, "Integrate Environmental Justice Factors," along with GSA's Sustainability Plan, which includes an action item to develop an Environmental Justice and Equity (EJ x E) Framework. This aims to develop criteria to advance equitable distribution of environmental risks and benefits and to avoid maladaptation.[25]

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

	Training and Capacity Building
Agency Climate Training Efforts	500 employees took GSA's Facility Standards for the Public Buildings Service (PBS-P100) training program in 2022, a 60+ minute introductory climate training course (e.g., Climate 101).
	73 individuals of GSA's senior leadership (e.g., Sec, Dep Sec, SES, Directors, Branch Chiefs, etc.) have completed climate-adaptation training.
	12 GSA budget officials have received climate-adaptation training.
	140 GSA acquisition officials have received climate-adaptation training.
Agency Capacity	Climate-related training offered over the past decade has been resource intensive and will continue to be. However, GSA will continue tailoring climate-literacy training to employees in seven targeted offices exposed to the subject matter in ways that are most applicable to each office.

[25] In FY 2024, OCR is leading GSA's collaborative efforts to draft and implement GSA's EJ Strategic Plan, consistent with EO 14096.

The solution for many of the human resource-related issues outlined in this section is a concerted, determined process of education and change management. Significant time and effort will continue to be necessary to expand the knowledge base needed to provide relevant knowledge and skills, and to manage change over a large organization. Climate risk management and climate adaptation is new to most staff, and adding this complex topic to existing workloads continues to be a challenge (See Section 4A). Many agencies, including GSA, need to dedicate staff full time to leverage change and help other staff to effectively include this scope in their work for risk management and prudent fiscal responsibility.

The number of people in GSA currently capable of providing the educational and training component remains small, and climate change is not a topic that lends itself to simple "train the trainer" programs. This shows as a barrier (See Section 4A) principally because the time needed to accomplish the change is longer than this plan envisions. Many of these aspects of risk management are new and unfamiliar, the scope is extremely broad, and our predictive ability is imprecise regarding resources. GSA is working on possible solutions, and these are described across this Plan.

Promoting climate literacy and consistent integration of forward-looking climate information enables informed decision-making and a more comprehensive risk-management approach. Improving GSA's climate literacy will require developing and updating agency training programs, resources, and tools, principally coordinated through the Chief Human Capital Officer and the Senior Sustainability Advisory Group, to harness expertise across the agency. Long-term implementation will require future human capital investments to increase overall proficiency in the GSA workforce, as well as in recruiting new expertise.

Near-term actions to advance climate literacy will prioritize building knowledge in the organizations principally tasked with executing prudent risk-management activities to address the top climate vulnerabilities and executing the top priority actions. The mission, authority, scale of financial decision-making, and alignment these offices have in carrying out agency and federal priorities further underpins the need for climate-literacy training. These priority organizations are as follows: Office of the Chief Financial Officer, FAS Office of Customer and Stakeholder Engagement, PBS Office of Portfolio Management and Customer Engagement, Office of Civil Rights, OGP Office of Acquisition Policy, Integrity & Workforce, OGP Office of Asset and Transportation Management, and the Office of Administrative Services.

Training for these offices began in August 2021 and was completed in March 2022. The tailored training provided an overview on climate terminology, including environmental justice and maladaptation, content specific to each office's mission describing their role in executing climate risk management activities for the agency, and opportunities to support their internal and external federal customer(s) with their climate adaptation goals. Climate-literacy training was also provided to employees who are engaged in GSA's Building Sustainability Network, the FAS Climate Adaptation and Sustainability Working Group, GSA's Facility Standards for the Public Buildings Service (PBS-P100) training program, and GSA's BAT training. As a next step, GSA's Office of Human Resources Management is working with the seven priority offices to develop climate adaptation knowledge gap assessments and plans to address any gaps. In FY 2023, GSA completed training for the seven priority offices outlined in the plan. The next step is for these seven offices to complete knowledge gap plans using a streamlined template.

Beyond the training sessions, agency climate-adaptation subject matter experts provided "on the job" support for several initiatives: climate risk profiles were developed for use by the LPOE projects' licensed design professionals to develop robust, adaptive strategies for the intended service life of the asset; support was provided to GSA's Office of the Chief Financial Officer (OCFO) to develop climate-related financial risk disclosures for the agency's 2022 and 2023 financial reports; and agency climate-risk experts now screen

acquisitions valued at $100 million or more for climate risks and develop climate risk management requirements for the acquisitions, as appropriate.

GSA also took significant steps to provide climate-literacy materials through its Sustainable Facilities Tool (SFTool). A new climate page was launched on SFTool.gov that decodes climate science's unique vocabulary and serves as a primer for building personnel new to the topic of climate change or looking for additional resources. The page provides information on the difference between climate adaptation and emissions mitigation, climate terms and tools, climate-risk management, adaptation and resilience planning examples, a checklist to identify and manage climate change risks at each stage of the acquisition life cycle, and climate-related supply chain risk management. SFTool is a public-facing website and can be accessed by anyone looking to learn more about climate adaptation.

GSA expanded the curriculum of a governmentwide course, Integrating Sustainable Acquisition, to include an overview of climate risk management in acquisitions, addressing climate risk in the acquisition life cycle, and a framework for managing climate risk in the federal supply chain.

3D. Summary of Major Milestones

Section of the Implementation Plan	Description of Milestone	Climate Risk Addressed	Indicators for Success
3A. Overview of Agency Approach to Addressing Climate Hazard Impacts and Exposure	Obtain localized data to evaluate flooding risk to GSA-controlled federally owned buildings, develop portfolio-wide vertical datum *(i.e., height above mean sea level),* and integrate it into portfolio management systems, asset business planning and site acquisition guidance. Without portfolio-wide vertical datum and information, it is not possible to accurately evaluate flood vulnerabilities for buildings (or other horizontal assets) due to outdated FEMA flood maps and subsequently to accurately estimate flood mitigation project costs and time frames for project execution. [26] GSA has established methods of including results of its climate vulnerability assessments (CVA) into its risk-management, planning and decision-making processes.	Flooding can severely damage federal facilities and impact an agency's operations and ability to fulfill its mission. Federal buildings in high-risk areas can require special mitigation measures, such as structure elevation, building system and cabling placement, and additional envelope protection. Given GSA's repair backlog, extreme weather events present significant risks to the federal real estate portfolio. Failure to mitigate these risks could result in even costlier expenditures following a natural disaster.	The CVA is distributed together with guidance as part of agency risk-management activities to GSA's Senior Leadership, Senior Risk Official, Chief Real Property Officer and Senior Procurement Executive and others per the OMB A-11 Circular. In addition, the 2021 Climate Change Risk Management Plan (CCRMP), progress reports from 2022 and verbal updates from 2023 also serve as effective resources for the agency, as well as plans prior to 2017. GSA is working to obtain localized data to evaluate flooding risk to GSA-controlled federally owned buildings, develop portfolio-wide vertical datum *(i.e., height above mean sea level),* and integrate it into portfolio management systems and asset business planning. Timeline for Implementation: **FY2024:** Scope to support objectives of OMB M-24-03 (11/29/2023). Determine executive leadership and designate staff resources. **FY2024-FY2025**: Develop a statement of work for contract. **FY2025-FY2025:** Award, manage contract and integrate into asset management and investment decisions.

[26] Priority action supports policy GSA PBS 1095.8A, Floodplain Management. https://www.gsa.gov/directives-library/floodplain-management-1 and P100, Facilities Standards. https://www.gsa.gov/real-estate/design-and-construction/engineering/facilities-standards-for-the-public-buildings-service?

3B. Incorporating Climate Risk into Policy and Programs	**Update the Building Assessment Tool (BAT):** Integrate methods to monitor and evaluate changing climate conditions in the BAT to inform prudent capital investment and asset management (continuation of existing effort). **General Risk Management:** GSA's efforts to modernize policies to manage climate risks leverage the bi-annual risk survey and GSA's updated climate vulnerability assessment and ongoing observations of the costs of no action to manage climate risks and adapt physical infrastructure and enhance readiness across the supply of mission-critical goods and services and emergency planning. **Agency & Interagency Collaboration:** GSA will continue to coordinate with other federal departments and agencies and interagency efforts, including the National Climate Task Force and its multiple interagency working groups. GSA will also continue to collaborate on matters that	**BAT:** GSA leveraged funding for BAT updates in the FY 2023 IT Enhancement budget. The updated Building Assessment Tool (BAT), advances methods to monitor and evaluate observed changes in loads due to changing climatic conditions and inform prudent capital investment and asset management. Outcomes of the FY 2025 BAT surveys will inform further BAT updates (See Section 3). BAT surveys are completed for the approximately 1,600 buildings and structures for which GSA has responsibility for repairs and alterations. Half of the inventory is surveyed annually, with the full inventory surveyed every two years. The BAT helps the Portfolio Management Division in identifying building liabilities that are later used for developing multi-year plans for repair and alterations projects; consolidating and prioritizing building deficiencies through survey inspections that help in identifying deferred maintenance cost; and complying with OMB's mandate of reporting GSA's total liability on an annual basis.	**General Risk Management:** Updates to the GSAM to include climate-risk management factors during planning; an Acquisition Letter prompting acquisition innovation in response to climate change; a process map to identify where forward-looking climate information is needed to inform material and fiscal decisions for PBS and FAS; updates to enterprise-wide representation of FAS and PBS to agency customers and integrating climate-risk management measures in response to needs of agency customers; a current natural and climate hazards viewer for GSA's inventory to help agencies self-identify risks associated with their lease spaces.

Section of the Implementation Plan	Description of Milestone	Climate Risk Addressed	Indicators for Success
	cross agency jurisdictions, such as the National Climate Resilience Framework and future measures needed including a National Climate Adaptation Strategy and Plan (See Section 4A).		

Section of the Implementation Plan	Description of Milestone	Climate Risk Addressed	Indicators for Success
3B. Climate-Smart Supply Chains and Procurement	**Identify, Assess, and Manage the Financial Risks of Climate Change:** GSA assessed climate hazard risk to critical supplies and services, GSA identified priorities, developed strategies, and established goals based on the assessment of climate hazard risks to critical supplies and services, and GSA developed an implementation plan to address supplies and/or services disruption from climate hazards. **Addressing Projected Exposure to the Top Five Critical Supplies and Services within FAS:** The top five critical supplies and services that FAS procures are telecommunications, motor vehicles and fleet, professional services (due to reliance on telecom and IT), IT hardware, and IT services (including software and security). Climate hazards identified as higher risk for these suppliers include flooding and urban storm surge.	From agency demand, projected exposure and sensitivity to climate risks, the top five critical supplies and services that FAS procures are telecommunications, motor vehicles and fleet, professional services (due to reliance on telecom and IT), IT hardware, and IT services (including software and security). Climate hazards identified as higher risk for these suppliers include flooding and urban storm surge. The FAS Acquisition Council (FAC) will begin reviewing external-facing acquisitions in these areas valued at $100 million or greater (inclusive of all options) so that climate risk is considered at various phases of the acquisition life cycle.	FAS integrated climate risk management reporting requirements and basic climate risk mitigation practices into several solicitations, and to date, awarded a $50 billion telecommunications contract, and two blanket purchase agreements with an estimated spend of $457 million. GSA developed a decision diagram detailing where climate risk management needs to be considered during the acquisition process for GSA's acquisition workforce, and incorporated the resource in GSA’s governmentwide course, Integrating Sustainable Acquisition. Process improvements include: acquisition policy, category management, disaster purchasing, global supply, retail operations, fleet, and equitable distribution of environmental risks and benefits.

Section of the Implementation Plan	Description of Milestone	Climate Risk Addressed	Indicators for Success
3C. Climate Adaptation Training and Capacity Building for a Climate Informed Workforce	**Requirements Planning and Management with GSA Customers:** Many agencies, including GSA, need to dedicate staff full time to leverage change and help other staff to effectively include this scope in their work for risk management and prudent fiscal responsibility.	N/A	Climate literacy training for GSA offices began in August 2021 and was completed in March 2022. The tailored training provided an overview on climate terminology, including environmental justice and maladaptation, content specific to each office's mission describing their role in executing climate risk management activities for the agency, and opportunities to support their internal and external federal customer(s) with their climate adaptation goals. Climate literacy training was also provided to employees that are engaged in GSA's Building Sustainability Network, the FAS Climate Adaptation and Sustainability Working Group, GSA's Facility Standards for the Public Buildings Service (PBS-P100) training program, and GSA's BAT training. In FY 2023, GSA completed training for the seven priority offices outlined in the plan. The next step is for these seven offices to complete knowledge gap plans using a streamlined template.

Section 4: Demonstrating Progress

4A. Measuring progress

Key Performance Indicator: Climate adaptation and resilience objectives and performance measures are incorporated in agency program planning and budgeting by 2027.

Section of the CCRMP	Process Metric	Agency Response
3A –Addressing Climate Hazard Impacts and Exposure	Step 1: Agency has an implementation plan for 2024 that connects climate hazard impacts and exposures to discrete actions that must be taken. (Y/N/Partially) Step 2: Agency has a list of discrete actions that will be taken through 2027 as part of their implementation plan. (Y/N/Partially)	Step 1 - Yes, GSA has an implementation plan for 2024 that connects climate hazard impacts and exposures to discrete actions that must be taken. Step 2 - Yes, GSA has a list of discrete actions that will be taken through 2027 as part of GSA's implementation plan.
3B.1 – Accounting for Climate Risk in Decision-making	Agency has an established method of including results of climate hazard risk exposure assessments into planning and decision-making processes. (Y/N/Partially)	Yes, GSA has established methods of including results of its climate vulnerability assessments (CVA) into its risk management, planning and decision-making processes.
3B.2 –Incorporating Climate Risk Assessment into Budget Planning	Agency has an agency-wide process and/or tools that incorporate climate risk into planning and budget decisions. (Y/N/Partially)	Yes, GSA has established methods of including results of its climate vulnerability assessments (CVA) into its risk management, planning and decision-making processes.
n/a	Step 1: By July 2025, agency will identify grants that can include consideration and/or evaluation of climate risk. Step 2: Agency modernizes all applicable funding announcements/grants to include a requirement for the grantee to consider climate hazard exposures. (Y/N/Partially)	Step 1 - N/A, GSA does not fund external parties. Step 2 - N/A, GSA does not fund external parties.

Key Performance Indicator: Data management systems and analytical tools are updated to incorporate relevant climate change information by 2027.		
Section of the CCRMP	**Process Metric**	**Agency Response**
3A –Addressing Climate Hazard Impacts and Exposure	Agency has identified the information systems that need to incorporate climate change data and information, and will incorporate climate change information into those systems by 2027. (Y/N/Partially)	Yes, GSA has identified the information systems that need to incorporate climate-change data and information, and will incorporate forward-looking climate information into those systems by 2027.
Key Performance Indicator: Agency CCRMPs address multiple climate hazard impacts and other stressors, and demonstrate nature-based solutions, equitable approaches, and mitigation co-benefits to adaptation and resilience objectives.		
Section of the CCRMP	**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 nature-based solutions, mitigation co-benefits, and equity principles. (Y/N/Partially)	Yes, by July 2025, 100% of GSA's climate adaptation and resilience policies will have been reviewed and revised to (as relevant) incorporate nature-based solutions, mitigation co-benefits, and equity principles.
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 CCRMP	**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, agency has assessed services and established a plan for addressing/overcoming disruption from climate hazards. (Y/N/Partially)	Step 1 - Yes, GSA has assessed climate exposure to its top 5 most mission-critical supply chains. Step 2 - Yes, by July 2026, GSA will have assessed services and established a plan for addressing/overcoming disruption from climate hazards.
	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)	Yes, the FAS Acquisition Council (FAC) reviews major external-facing acquisition vehicles to enable successful cost effective procurement. Acquisitions for the top five priority goods and services are reviewed by the FAC to assess the need for climate risk management requirements.

Key Performance Indicator: By 2027, agency staff are trained in climate adaptation and resilience and related agency protocols and procedures.		
Section of the CCRMP	**Process Metric**	**Agency Response**
3C – Climate Training and Capacity Building for a Climate Informed Workforce	Step 1: By December 2024 100% of agency leadership have been briefed on current agency climate adaptation efforts and actions outlined in their 2024 CCRMP. (Y/N/Partially) Step 2: Does the agency have a Climate 101 training for your workforce? (Y/N/Partially) If yes, what percent of staff have completed the training? Step 3: By July 2025, 100 % employees have completed climate 101 trainings. (Y/N/Partially)	Step 1 - Yes, by December 2024, 100% of agency leadership will have been briefed on current agency climate-adaptation efforts and actions outlined in its 2024 Climate Change Risk Management Plan. Step 2- Yes, GSA deployed Climate Adaptation training for the 7 programs and business entities where climate adaptation is most relevant. 100% complete. Step 3 - N/A, All employees have access to recorded climate-adaptation training today, but not all employees conduct work where training on climate change data or information is relevant.

4B. Climate Adaptation in Action

In 2021 through a collaborative process across the agency, GSA selected its top five priority actions to advance climate adaptation efforts based on informed risk-management actions. The overview below reflects the efforts to develop, deploy, and implement known[27] and ongoing barriers to mainstreaming climate adaptation, and definitive resource limitations applicable to climate adaptation (as opposed to emissions mitigation) as a response[28] to climate change across multiple stakeholders within GSA.

Barriers: There are significant barriers that span from internal preventable to strategy execution to policy and funding. These are not simply challenges, but are barriers to implementation and advancing adaptive capacity across organizational, technical, and financial domains, which GSA's updated Climate Vulnerability assessment restated.

The main internal preventable barriers to climate adaptation include: limited understanding of climate risks and how to prepare for them, perceived lack of immediacy and relevance about climate risks, unclear scope and responsibilities, lack of integration across institutional stovepipes, slow process change, and limited budgets and budget processes.

Implementation has revealed strategy-execution barriers which, in their current form, hinder and frustrate progress. These strategy-execution barriers include a lack of awareness, understanding and prioritization of the imperative for climate adaptation and climate risk management, customer barriers and changes in management and methods.

Governance, policy, guidance and funding programs, especially if they were developed before there was widespread understanding of the importance of responding to climate change, are another barrier to climate adaptation. Progress has been made in many areas, but some policies need further modernization and continue to limit climate adaptation and to increase maladaptation. Aspects of agency legacy environmental and sustainability programmatic roles and duties need further alignment so that agency programs and offices primarily responsible for risk management can build capabilities to incorporate climate data and information for prudent decision making and climate risk management [29]. Additionally, academic literature does not address climate-related financial costs or methodologies for the Federal Government or for federal agencies, bureaus, or their programs. Without this, the ability to target resources toward the highest priorities is very limited.

Climate Adaptation Actions: Descriptions below of climate adaptation actions build from prior plans, progress reports and GSA's updated agency-wide climate vulnerability assessment:

1. Improve requirements planning and management processes to advance readiness across the supply of goods and services using actionable forward-looking climate information and data in the Federal Acquisition Service.
2. Improve requirements planning and management processes with GSA customers to advance real property asset management using actionable forward-looking climate information and data in the Public Buildings Service.
3. Obtain localized data for site due diligence, modernize related site-acquisition guidance and integrate into real property asset management information systems and asset business planning.

[27] Five elements required to effectively adapt to climate change: https://www.gao.gov/assets/gao-23-106362.pdf
[28] Per the Fifth National Climate Assessment and prior assessments, there are two responses to climate change-climate adaptation is one of the two both of which are needed right now.
[29] GAO High Risk List 2021: https://files.gao.gov/reports/GAO-23-106203/index.html#appendix12

4. Leverage methods to monitor and evaluate changing conditions in the Building Assessment Tool to inform prudent capital investment and asset management
5. Integrate advancements in financial reporting regarding climate-related physical risks to the financial position, condition, and operating performance and into relevant formal agency decision-making processes.

Rationale for Modifications from the 2021 CCRMP Priority Actions: *Integrate Environmental Justice Factors:* Beginning in 2021, GSA's Office of Civil Rights (OCR) reconvened GSA's Environmental Justice Working Group to develop a draft EJ strategy. In FY 2024, OCR is leading GSA's collaborative efforts to draft and implement GSA's EJ Strategic Plan, consistent with EO 14096. Environmental Justice is a systematic effort, which merits elevation outside of this plan. All climate adaptation measures must avoid maladaptation and support outcomes to advance Environmental Justice.

Requirements Planning and Management with GSA Customers: Given the difference in climate factors in time and spatial scales between real property and supply chains, it is useful to separate and make each distinct with existing GSA service lines.

Obtain Localized Data for Site Due Diligence: The proposal was not funded in 2021 or 2022 despite being included in the President's budgets for those years. It was subsequently funded through the Infrastructure Resilience Act (IRA) in 2022.

Leverage Building Assessment Tool (BAT): Updates to the BAT survey are complete given the available contract resources and timing. Training was conducted in Q1 FY 2024.

Manage the Financial Risks of Climate Change: Advancement in this domain is essential but highly prescriptive, risk-averse, and audited. The A-136 section on climate-related financial disclosures remains voluntary and optional. GSA included responses in recent Agency Financial Reports. [30]

[30] Federal Accounting Standards Advisory Board (FASAB) is assessing the International Sustainability Standard Board's (ISBB) International Financial Reporting Standards (IFRS) S2 Climate Related Disclosures (incorporates sunsetted TCFD 4 core recommendations)

Appendix A: Exposure Assessment Data

The Federal Mapping App uses the following data:

Buildings

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

Personnel

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

Climate Hazards

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