DEPARTMENT OF VETERANS AFFAIRS

2024-2027 Climate Adaption Plan

May 2024

Department of Veterans Affairs

2024-2027 Climate Adaption Plan

I am providing the Department of Veterans Affairs (VA) 2024-2027 Climate Adaption Plan, pursuant to section 211 of Executive Order (EO) 14008, Tackling the Climate Crisis at Home and Abroad; section 5(d) of EO 14030, Climate-Related Financial Risk; and section 503 of EO 14057, Catalyzing Clean Energy Industries And Jobs Through Federal Sustainability. Pursuant to the Disaster Resilience Planning Act, this plan incorporates natural hazard and climate resilience information into VA real property management practices.

Denis McDonough
Secretary
Department of Veterans Affairs

Section 1: Agency Profile

Agency Profile	
Mission	To fulfill President Lincoln's promise to care for those who have served in our Nation's military and for their families, caregivers, and survivors.
Adaptation Plan Scope	• Veterans Health Administration • Veterans Benefits Administration • National Cemetery Administration • Office of Human Resources Administration/Office of Operations, Security, and Preparedness • Office of Management • Office of Public and Intergovernmental Affairs • Office of Acquisition, Logistics, and Construction
Agency Climate Adaptation Official	Brett Simms, Chief Sustainability Officer
Agency Risk Officer	Risk Officer role currently not assigned
Point of Public Contact for Environmental Justice	Environmental Justice Officer role currently not assigned.
Owned Buildings	6,276 owned buildings of 156,492,300 square feet *(VA Capital Asset Inventory System)*
Leased Buildings	1,990 leases of 29,057,558 square feet *(VA Capital Asset Inventory System)*
Employees	433,902 employees *(FY 2023 numbers from VA FY 2024 Budget in Brief, BiB-8)*
Federal Lands and Waters	39,296 acres *(VA Capital Asset Inventory System)*

Agency Profile	
Budget (in billions)	$273.8 FY22 Enacted (P.L. 117-103) $308.5 FY23 Enacted (P.L. 117-328) $307.3 FY24 Enacted (P.L. 118-42) $369.3 FY25 President's Budget Budget - U.S. Department of Veterans Affairs (va.gov)
Key Areas of Climate Adaptation Effort	• Office of Asset Enterprise Management • Office of Construction and Facilities Management • Veterans Health Administration Public Health National Program Office • Office of Operations, Security, and Preparedness • Veterans Benefits Administration Home Loan Program

Enhancing climate resilience across the Department of Veterans Affairs (VA) is a critical endeavor to protect the VA mission to serve Veterans. This endeavor includes reaching the high standard of avoiding interruption of any duration for in-patient facilities. Beyond maintaining the Department's ability to serve its mission, VA must be prepared to serve its "Fourth Mission" to improve the country's response in times of emergency, requiring not just continued services, but heightened demands to provide health care services to the general public during a potential extreme weather event[1]. Altogether, VA must set and achieve a high bar for resilience through substantial adaptation efforts.

To guide the resilience effort, the VA senior-level Sustainability Task Force established a Climate Adaptation Working Group. This group includes representation across VA, tracks progress on VA climate objectives, and shares information on efforts among representative offices. The VA 2021 Climate Action Plan (CAP) set the direction for VA efforts that continue today by addressing critical vulnerabilities to maintain VA's ability to serve its mission. This 2024-2027 Climate Adaption Plan builds on the VA 2021 CAP by further advancing resilience in many of the same critical areas, while maintaining alignment with Executive Order (EO) 14008, Tackling the Climate Crisis at Home and Abroad, and EO 14057, Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability. Together, these efforts build toward a more resilient VA in a comprehensive way. Internally, each of these actions is broken down into sub-tasks as needed, and the progress and status of all tasks are tracked in a central database. By engaging across the Department, each task falls to the office with the most knowledge and accountability for the effort. For example, the Office of Construction and Facilities Management (CFM) is updating design standards, while the Veterans Health Administration (VHA) Public Health National Program Office (PHNO) is improving

[1] VA's Fourth Mission is to improve the Nation's preparedness for response to war, terrorism, national emergencies, and natural disasters. https://www.va.gov/VHAEMERGENCYMANAGEMENT/4thMission.asp.

capabilities for tracking new and emerging diseases and integrating climate and demographic data into existing surveillance.

Through the VA 2024-2027 Climate Adaptation Plan, the Department will advance environmental justice as part of its mission, which is consistent with EO 14008 and with EO 14096, Revitalizing Our Nation's Commitment to Environmental Justice for All. As the Department implements its 2024-2027 Climate Adaptation Plan to increase the resilience of its facilities and operations, the agency will use its best efforts to, 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.

VA will continue to engage externally and across the organization to ensure that the Department continually improves its resilience, protects VA facilities, and maintains its ability to perform its mission to care for Veterans, and the public, should disaster strike.

Section 2: Risk Assessment

VA 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 and the National Oceanic and Atmospheric Administration (NOAA) to conduct a high-level screening of climate hazard exposure for Federal facilities and personnel. In addition to this high-level screening, VA recently completed an internal climate vulnerability assessment. This assessment, conducted by a third-party contractor, used multiple data sources to assess physical exposure to climate risk, including the Federal Emergency Management Agency (FEMA) National Risk Index, the Intergovernmental Panel on Climate Change (IPCC) World Atlas, and the U.S. Department of Agriculture (USDA) Forest Service Wildfire Risk to Communities dataset. This information will supplement the Federal Mapping App findings throughout the VA plan.

Through the Federal Mapping App, VA 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.

Climate Data Used in Agency Risk Assessment			
Hazard	**Description**	**Scenario**	**Geographic Coverage**
Extreme Heat	Measured as whether an asset is projected to be exposed to an increased number of days with temperatures exceeding the 99th percentile of daily maximum temperatures (calculated annually), calculated with reference to 1976-2005. Data are from high-resolution, downscaled climate model projections based on the Localized Constructed Analogs (LOCA) dataset prepared for the Fourth National Climate Assessment (NCA4).	RCP 4.5	Contiguous United States (CONUS)
		RCP 8.5	CONUS
Extreme Precipitation	Measured as whether an asset is projected to be exposed to an increased number of days with precipitation amounts exceeding the 99th percentile of daily maximum precipitation amounts (calculated annually), with reference to 1976-2005. Data are from high-resolution, downscaled climate model projections based on the LOCA dataset prepared for NCA4.	RCP 4.5	CONUS
		RCP 8.5	CONUS and Alaska
Sea Level Rise	Measured as whether an asset is within the inundation extents from NOAA Coastal Digital Elevation Models and the 2022 Interagency Sea Level Rise Technical Report. intermediate and intermediate-high sea level rise scenarios used as proxies for Representative Concentration Pathway (RCP) 4.5 and RCP 8.5, respectively.	RCP 4.5	CONUS and Puerto Rico
		RCP 8.5	CONUS and Puerto Rico
Wildfire Risk	Measured as whether an asset in a location is rated as high, very high, or extreme risk based on the U.S. Forest Service Wildfire Risk to Potential Structures (a data product of Wildfire Risk to Communities), which estimates the likelihood of structures being lost to wildfire based on the probability of a fire occurring in a location and likely fire intensity. Data reflects wildfires and other major disturbances as of 2014.	Historical	All 50 States
Flooding	Measured as whether an asset is located within a 100-year floodplain (1% annual chance of flooding) or 500-year floodplain (0.2% annual chance of flooding), as mapped by the Federal Emergency Management Agency National Flood Hazard Layer.	Historical	All 50 States and Puerto Rico
Exposure to extreme heat, extreme precipitation, and sea level rise were evaluated at mid- (2050) and late century (2080) under two emissions scenarios: Representative Concentration Pathway (RCP) 4.5 and RCP 8.5. Exposure to flooding and wildfire risk were only evaluated for the present day due to data constraints.			

Climate Scenarios Considered in Agency Risk Assessment.		
Scenario Descriptor		**Summary Description from the Fifth National Climate Assessment (NCA5)**
RCP 8.5	Very High Scenario	Among the scenarios described in NCA5, RCP 8.5 reflects the highest range of carbon dioxide (CO_2) emissions and no mitigation. Total annual global CO_2 emissions in 2100 are quadruple emissions in 2000. Population growth in 2100 doubles from 2000. This scenario includes fossil fuel development.
RCP 4.5	Intermediate Scenario	This scenario reflects reductions in CO_2 emissions from current levels. Total annual CO_2 emissions in 2100 are 46% less than the year 2000. Mitigation efforts include expanded renewable energy compared to 2000.
Additional details about the data used in this assessment are provided in Appendix A.		

2A. Climate Hazard Exposures and Impacts Affecting Federal Buildings.

Indicators of Exposure of Buildings to Climate Hazards	RCP 4.5 2050	RCP 4.5 2080	RCP 8.5 2050	RCP 8.5 2080
Extreme Heat: Percentage of buildings projected to be exposed to more days with temperatures exceeding the 99th percentile of daily maximum temperatures (calculated annually) from 1976 to 2005.	100%	100%	100%	100%
Extreme Precipitation: Percentage 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 to 2005.	98%	100%	100%	100%
Sea Level Rise: Percentage of buildings projected to be inundated by sea level rise.	2%	3%	3%	4%
	High Risk	**Very High Risk**		**Extreme Risk**
Wildfire: Percentage of buildings at highest risk to wildfire.	5%	1%		<1%
	100- or 500- year floodplain			
Flooding: Percentage of buildings located within floodplains.	5%			

The Federal Mapping App illustrates that all VA facilities are projected to experience more extreme heat (row 1 in Section 2A table above). Recently, VA completed a facility climate vulnerability assessment that provides greater acuity than the Federal Mapping App. This assessment, conducted by a third-party contractor, used multiple data sources to assess physical exposure to climate risk, including the FEMA National Risk

Index, the IPCC World Atlas, and the USDA Forest Service Wildfire Risk to Communities dataset. Limiting the scope to VA's most mission-critical facilities, 171 VA medical centers (VAMCs) were assessed, while 46 national cemeteries received a more limited assessment. Facilities were ranked on a range from 1 to 5 for each climate hazard, with 5 representing the highest climate vulnerability. Five VHA facilities (3%) received the maximum score of 5 for extreme heat. In addition, nearly half of facilities had moderate exposure (>2 to <4, out of 5) to extreme heat, while 15% had high exposure (≥4). The key risk during high extreme temperatures is grid reliability or failure and the risk for a blackout of the electric grid impacting facility operations.

Flooding is a concern, with 5% of facilities within a 100-year or 500-year flood plain (section 5 in the Section 2A table above), and nearly all facilities projected to be impacted by an increase in extreme precipitation (section 2 in the Section 2A table above). From VA's more detailed assessment, eight VHA facilities (roughly 5%) had a score of 4 or higher on the 5-point scale for extreme precipitation exposure, with about half of sites at moderate risk (>2 to <4, out of 5). As a subset of flooding, sea level rise is projected to impact a small, but significant portion of VA facilities, with 2-3% projected to be inundated by mid-century (section three in Section 2A table above). Per the VA assessment, 6 VHA facilities (4%) had the maximum score of 5 on the 5-point scale for coastal flooding risk, while 10 VHA facilities (6%) had a score of 4. Remaining sites had either low risk or no data, due to their distance from coastal areas. As VA facilities experienced in the past, flooding can cause severe infrastructure damage, particularly to lower levels of buildings, as well as negatively impact the continuous delivery of health care, medications, and supplies.

According to the Federal Mapping App Tool's high-level exposure screening, wildfire presents a high risk to 5% of VA facilities (section four in the Section 2A table above). In VA's more granular climate vulnerability assessment, five VHA facilities (3%) had the maximum risk score of 5, with three additional facilities (2%) scoring 4 out of 5. The primary concerns related to wildfires are the potential for fire spreading to a facility, the negative impacts of wildfire smoke on indoor air quality, and the harmful health and safety effects of wildfires on VA employees, health care providers, and Veterans.

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: Percentage 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 to 2005.	99%	99%	99%	99%
Extreme Precipitation: Percentage 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 to 2005.	99%	99%	99%	97%
Sea Level Rise: Percentage of employees duty-stationed in counties projected to be inundated by sea level rise.	17%	24%	17%	27%

	High Risk	Very High Risk	Extreme Risk
Wildfire: Percentage of employees duty-stationed in counties at highest risk to wildfire.	14%	5%	3%

Based on the Federal Mapping App data displayed in Table 2B above, VA employees are projected to experience more extreme heat not only where they live but also where they work. An increased number of extreme heat days may result in an increase in employees, or dependents they care for at home, experiencing heat-related illness. Particularly in geographic areas or lines of work in which staffing shortages already exist, these employee impacts have the potential to affect the health care delivery to, and therefore the health of, Veterans in VA care. Extreme heat may cause, or further exacerbate, medical workforce shortages that often disproportionately impact health care access for the most vulnerable patients, if work in localities most impacted by extreme heat becomes less appealing for medical workers[2].

An increased number of extreme heat days may indirectly impact employees and the VA workforce in other ways by negatively impacting the electric grid leading to brownouts or blackouts, or by putting additional stress on cooling systems[3]. An air-conditioning system struggling to keep a building cool enough for employees to work safely or comfortably could not only increase rates of heat-related illness among employees but also inhibit employees' ability to be present at work or fulfill necessary duties to sustain health care delivery within VA medical facilities. Employee well-being is thus impacted by heat-related illness and by vulnerabilities and weaknesses in community or workplace infrastructure.

[2] https://doi.org/10.1016/j.scitotenv.2018.11.479.
[3] https://toolkit.climate.gov/topics/human-health/extreme-heat.

VA employees are projected to be exposed to extreme precipitation in almost all locations where they live and work. Flooding resulting from extreme precipitation could damage employees' homes and worksites, destroy roads and bridges, disrupt the electric grid and supply chains, and contaminate water supplies. This situation could impact employees' ability to commute safely, as well as impact Veterans' ability to access health care.

There are a sizable number of employees who work in counties projected to be impacted by sea level rise (17 to 27% depending on the climate scenario). If employees' ability to safely leave their homes or access their workplaces is threatened, the services they provide and the Veterans they serve will be impacted as well.

Based on their county of duty station, 14% of employees are at high risk for wildfire and 3% are at extreme risk. This situation could impact employee safety and health. Wildfire smoke inhalation can have severe short-term health consequences, exacerbating asthma, respiratory infections, and complications due to chronic obstructive pulmonary disorder and cardiovascular disease, as well as potential long-term impacts, not all of which are well-understood or characterized[4]. These direct health impacts to employees will limit their ability to perform their duties safety and effectively, including the ability of health care providers to care for Veteran patients. Wildfires have the potential to destroy employees' homes, facilities in which they work, and roads leading to their workplaces or homes, further limiting employees' financial security and ability to access their workplaces. Wildfires may force employees to evacuate their homes or workplaces, thus threatening their safety at home and at work. Evacuation orders and road closures have the potential to increase employee absenteeism.

Active or worsening climate hazards may increase health care demand and strain health care systems and their employees. For example, emergency department visits and workload surge during heat waves[5]. Veteran patient health impacts from extreme heat, flooding, and wildfires are likely to increase employee workload, which may lead to burnout and attrition, thus further compounding health care system stressors and putting patients' health at risk[6].

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
VA national cemeteries, 155 locations (23,000 acres)	Significant climate impacts on VA cemeteries have not been reported to date.	Critical impacts include wildfire, flooding, and drought, all of which jeopardize VA's ability to maintain cemetery function and aesthetics.

[4] https://www.cdc.gov/air/wildfire-smoke/default.htm.
[5] https://doi.org/10.1016/j.annemergmed.2020.03.010.
[6] https://doi.org/10.1037/trm0000228.

VA manages national cemeteries at 155 locations, comprising 23,000 acres. While the greatest potential climate impacts to VA facilities and employees are seen by VHA, impacts to Federal lands will significantly affect the National Cemetery Administration (NCA). Maintaining the gravesites and their aesthetic is critical to the mission of NCA, which manages more than half of VA acreage. VA maintains national shrine standards that give cemeteries clear guidelines for the maintenance of their facilities. In the VA vulnerability assessment, which largely focused on VAMCs, the 46 largest national cemeteries were included, comprising about one-third of NCA sites. Ten cemeteries (22%) received the maximum score of 5 out of 5 for coastal flooding risk, with 14 sites (30%) at high risk (≥4 out of 5). Meanwhile, 20 sites (43%) were at high risk for hurricanes, 14 for riverine flooding (30%), and 7 for heavy precipitation (15%). While flooding can greatly damage cemeteries, drought and wildfire also pose risks. Ten sites (22%) were at high risk due to wildfire, while ten sites were at high risk for drought.

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
Continuity of care to Veterans is critical to VA's mission. Veterans may be unable to access routine and emergency health care due to climate hazards.	Facility and infrastructure damage could occur from multiple hazards (wildfire, flooding, extreme heat, extreme precipitation, sea-level rise, extreme hail, or wind), thus disrupting VA health care delivery. Due to VA's nationwide footprint, facilities are exposed to a wide range of natural hazards. VA identified VA facilities with highest risk from each specific hazard, as described in Section 2A.	All of these hazards can cause damage to facilities, thus disrupting the delivery of direct care to, and access to care for, Veterans. Infrastructure damage impacts will vary dependent on the severity of the damage, which could range from minor damage that does not impact operations to disruption of all Veteran services and health care delivery operations.

Summary of Key Current and Projected Climate Hazard Impacts and Exposures		
Area of Impact or Exposure	Identified Climate Hazard	Description
An increased burden of health care needs due to extreme weather events may increase the demand for health care personnel and supplies during and immediately following such events.	Extreme weather events that impact community health or infrastructure could range widely, such as wildfire, flooding, or extreme heat.	Extreme weather events could require a drastic increase in the number of patients at a VAMC, as well as increased demand for the associated supplies required. This situation could create expanded staffing needs during the disaster and recovery.
Supply chain interruption due to extreme weather events could impact VA's ability to provide health care.	Extreme weather events of various types could interrupt supply chains from extreme heat causing power outages to flooding damaging facilities.	Supply chain interruptions at the local, regional, or global levels could impact the availability of supplies needed for critical health care purposes, thus ultimately reducing VA's ability to provide care. While VA maintains stockpiles of critical supplies, these supplies could be damaged by severe weather events.
Damage to or interruption of the critical resource delivery systems on which VA facilities rely such as electrical, power line failure, or water could prevent VA's ability to deliver care or provide emergency response.	Various hazards, such as flooding, extreme heat, and wildfire, could be disruptive to critical VA systems.	Lack of power or water could dramatically reduce VA's ability to provide health care or emergency services.

Summary of Key Current and Projected Climate Hazard Impacts and Exposures		
Area of Impact or Exposure	Identified Climate Hazard	Description
Veterans and employees may face health impacts due to extreme weather and climate change.	Extreme heat, wildfires, and other hazards could cause health impacts.	Direct health impacts could occur from increased exposure to heat waves, floods, and droughts. Additional impacts may occur, such as food-, water- and vector-borne diseases; changes in the quality, and safety of air, food, water; and stresses to mental health, thus leading to increased burden of disease among Veterans as well as an increased demand for health care services.

VA's ability to respond in an emergency to meet the needs of a community is a challenge of capacity, with a baseline requirement that VA can maintain its own operations. VA must be prepared to provide continuous, and even expanded, capabilities to serve Veterans and the public even when other community facilities and organizations may face interruptions in operations.

Wildfires, flooding events, and extreme precipitation all have the potential to severely damage VA facilities and disrupt operations. Damage to medical facilities could prevent Veterans from receiving medical care. Utility disruptions can limit or halt hospital or clinic operations, reduce access to care, and carry potential infection control concerns, even where backup generation capability is available.

Beyond facility impacts, damage to the broader community, such as to local roads, infrastructure, and supply chains, hampers VA's ability to fulfill its mission. While VA maintains critical supply stockpiles, severe weather impacts to buildings that house one or more of the All-Hazards Emergency Caches at VA medical facilities could corrupt or destroy costly and life-saving pharmaceuticals and medical supply countermeasures intended to assure preparedness in the event of a catastrophic public health emergency (including acts of terrorism, natural disasters, or pandemics). While there are physical security and storage requirements for maintaining these facility caches, damage to the caches is still possible in extreme cases, such as a security breach or weather event that is more extreme than anticipated. A disrupted supply chain could leave VA facilities without the critical supplies to deliver care.

Veterans and their VHA health care providers will be particularly impacted by the effects of climate change on health. Health care providers must prepare for an increase in

climate-related health care demands and shifting health care needs and priorities. For example, a recent study demonstrated a rise in heat-related illness among Veterans over time, particularly for those with more comorbidities, such as heart disease, emphysema, and diabetes. As with many climate impacts, Black and American Indian/Alaskan Native Veterans were disproportionately affected[7]. Veterans will face direct and indirect health impacts of extreme heat, wildfires, and other climate hazards, with effects that could be short- or long-term. Climate change may impact Veterans' access to public transportation, safe roads, and other resources that can influence health outcomes; such effects on community infrastructure often cause greater harm within vulnerable populations and communities with environmental justice concerns. Large-scale electrical outages can lead to exposure to unsafe temperatures, loss of function of critical medical devices, and loss of access to communication and to health care, all of which result in health and safety hazards for Veterans. In addition, severe weather can damage or destroy Veterans' homes and threaten food and housing security[8, 9] . Altogether, this creates a complex cascading effect on health, safety, and access to health care.

Section 3: Implementation Plan

3A. Addressing Climate Hazard Impacts and Exposure.

3A.1. Addressing Climate Hazard Exposure and Impacts Affecting Federal Buildings.

Prioritized Actions to Address Climate Hazard Exposure and Impacts Affecting Federal Buildings		
Climate Hazard Impact on and/or Exposure to Buildings	Priority Action	Timeline for implementation (2024-2027)
Extreme weather events, such as flooding, extreme heat, hurricanes, and so on, threaten to damage buildings if they have not been designed with climate change taken into account and can interrupt health care and other functions.	Review and update climate-resilience standards for sites and facilities.	In fiscal year (FY) 2024, complete a full review and update of facility standards to address climate resilience requirements and address related risks.

[7] https://www.sciencedirect.com/science/article/pii/S2667278223000561.
[8] https://doi.org/10.1016/j.annemergmed.2020.03.010.
[9] https://doi.org/10.1016/j.archger.2012.07.010.

Prioritized Actions to Address Climate Hazard Exposure and Impacts Affecting Federal Buildings		
Climate Hazard Impact on and/or Exposure to Buildings	Priority Action	Timeline for implementation (2024-2027)
Existing facilities were not designed to withstand the escalating severe weather conditions of climate change and may be severely damaged by a climate-related weather event, thus disrupting operations in the short- or long-term.	Identify and remediate climate risks to existing facilities	In FY 2024 and FY 2025, develop a process for integrating climate risk into VA's Strategic Capital Investment Plan. In FY 2025, conduct risk assessments at all existing facilities and determine estimated costs for enhancements to harden new construction and renovations to be climate ready. Related projects will be prioritized beginning in FY 2026.
Energy grids may fail during extreme weather events, leading to reliance on facility energy generation.	Improve energy efficiency and energy storage to support resilience during power outages.	In FY 2024, develop plans to improve energy and water efficiency, as well as carbon pollution-free distributed energy generation and storage capability, to support facility resilience. Several facilities are participating in pilot projects to assess facility resilience capabilities and needs.
During severe weather events, demands on VA operations will be higher, due to supporting the general public, and operations will become even more essential to maintain.	Develop emergency response strategies incorporating climate change considerations	In FY 2024, develop a preparedness and resilience framework, reviewed annually, and develop an annual capabilities and threat assessment.

CFM created a Sustainability Program Office to address the pressing need for increasing resilience in future and current VA facilities. CFM has made significant progress on updating standards, and additional efforts are on-going. Building on VA's recent climate vulnerability assessment, more detailed in-person assessments of facilities are planned to develop specific projects to address identified climate risks. VA is preparing to integrate climate risk into VA's Strategic Capital Investment Plan (SCIP) process, which ranks projects based on mission-critical criteria. Key gaps are identified, while projects that close those gaps improve in ranking and prioritization for funding. VA will use its earthquake risk gap as a model for incorporating climate risk.

VA continues to pursue improved energy and water efficiency and renewable energy generation and has plans in development this year for how to further increase this capability. This effort, including planning for energy storage, will improve VA's ability to continue operating during a grid outage.

In addition, the Office of Operations, Security, and Preparedness (OSP) continues to integrate climate into their processes, with a strategy developed in fiscal year (FY) 2023, and an additional framework in 2024, as well as a capabilities and threat assessment.

3A.2. Addressing Climate Hazard Exposures and Impacts Affecting Federal Employees.

Prioritized Actions to Address Climate Hazard Exposures and Impacts Affecting Federal Employees		
Climate Hazard Impact on and/or Exposure to Employees	Priority Actions	Timeline for implementation (2024-2027)
Climate change could result in an increase in the spread of disease, impacting employees and patients.	Improve public health data-sharing and surveillance.	In fiscal year (FY) 2024, establish and update the existing climate and health data exchanges with the Centers for Disease Control and Prevention and other Federal agencies, generating usable data this year. In FY 2025, enhance existing public health surveillance tool and include climate metrics, forecasting, and climate-related changes to communicable and non-communicable diseases. Analysis of data from Veterans Health Administration public health surveillance, epidemiologic investigations, and data exchange is on-going.

VA is actively working to improve tracking of diseases and collaboration with other agencies to better protect employees, patients, and the public. While VA is not able to protect employees' homes, outdoor air quality and temperature, or roadways they use, VA's efforts to protect facilities will benefit employees in many ways. These benefits include protecting facility infrastructure and maintaining power for facility

operations, including heating and cooling for employees' safety and comfort. Forecasting increased employee demands over time due to climate impacts will be critical for VA facilities, which is addressed in the risk and policy sections herein. In addition, OSP is incorporating climate risk into their processes, as well as updating policies. To protect employees in all types of emergencies, VA maintains a national Emergency Alerting and Accountability System. Per VA Directive 0325, Personnel Accountability, all organizations are required to use this centralized system, as well as follow requirements for updating employee contact information.

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

a. Prioritized Actions to Address Climate Hazard Exposures and Impacts Affecting Federal Lands, Waters, and Associated Cultural Resources		
Type of Land or Water Asset	Climate Hazard Impact on and/or Exposure to the Asset	Priority Action
VA national cemeteries, 155 locations (23,000 acres)	Critical impacts include wildfire, flooding, and drought, all of which jeopardize VA's ability to maintain cemetery functions and aesthetics.	VA recently assessed climate risks at VA's largest cemeteries. The National Cemetery Administration will be participating in a pilot project to identify climate resilience projects.

Climate impacts, such as flooding and wildfires, could lead to damage to VA cemeteries, and visitor impact. NCA is participating in a pilot project with the Federal Energy Management Program Technical Resilience Navigator that will identify critical adaptation projects. Meanwhile, VA is reviewing how climate can be incorporated into SCIP.

b. Advancing the America the Beautiful Initiative	
America the Beautiful	
Reduced irrigation of VA national cemeteries	VA incorporated xeriscaping in more arid climates to limit irrigation needs in places such as Fort Bliss, Bakersfield, and San Joaquin National Cemeteries and plans to expand the practice. In addition, as VA cemeteries replace or expand their irrigation system, their best practice has become to implement cloud-based systems that reduce irrigation based on recent precipitation. This approach can greatly reduce water needs, increasing cemeteries' resilience to potential droughts.
Conservation of land on VA campuses	At the facility-level, there have been several initiatives to improve land conservation on VA campuses, from stormwater management projects to tree-planting, with plans to expand these efforts. Conserving green space can support VA's climate adaptation efforts such as by helping reduce the impacts of flooding and extreme heat.

While VA's mission does not directly include land and water conservation, VA strives to reduce environmental impact in this area. In addition, land and water conservation can be beneficial for climate adaptation, through mitigating the impacts of flooding and extreme heat and increasing resilience to droughts. Overall, VA reduced water use by 34% from 2007 levels, despite continued growth in the mission and number of VA patients.

The National Memorial Cemetery of the Pacific in Honolulu, Hawaii, recently upgraded to cloud-based irrigation software, an NCA best practice for site irrigation upgrades or expansions. The cloud-based software communicates hourly with the local weather station computer to provide real-time weather data by using precise adjustments to irrigation application rates. The estimated savings will be 3 to 9 million gallons of water annually and thousands of dollars in cost savings. This effort will serve to drastically improve the cemeteries resilience to any future drought.

VA staff in Dayton, Ohio, have been proactive in improving and establishing new processes to enhance the natural resources at the Dayton VAMC. They created and began implementing a 5-year forestry plan to plant at least 100 new native trees throughout the campus. Staff established a walking path nature trail

accessible to Veterans and employees. This nature trail includes 1 1/2 acres of pollinator habitat and native shrubs and trees, with plans to continue expanding on the progress. Currently, staff are developing plans to continue converting unused grass areas to natural habitat to increase biodiversity while reducing mowing requirements. While these efforts support the local ecosystem, increased tree cover provides shade and overall helps increase resilience to extreme heat.

Roseburg VAMC in Roseburg, Oregon, collaborated on a food waste diversion project between its Food and Nutrition staff and Heal Terra, a local Veteran-owned non-profit vermiculture composting facility. Through this collaboration, the Roseburg VAMC reduced its overall food waste by 40% by turning food waste in a nutrient rich, organic alternative to synthetic fertilizer that increases the soil's ability to retain water. Increased soil water retention capacity reduces the risk of flooding and flood damage. This collaboration provided Veterans with recreational opportunities to help reduce stress and symptoms of posttraumatic stress disorder. The Roseburg VAMC diverted 5 tons of food waste in 2021 and expects an increase in diversion rates next year as the program matures.

Stormwater efforts at VA work to minimize the impact of heavy rain events, including potential flooding. Erie VAMC installed a stormwater infiltration gallery when constructing a parking structure. It is designed to collect stormwater and slow down the impact of storm surge on local storm drains, swales, and streams. The gallery is designed to allow water to recharge back into the ground and to reduce the turbidity of associated with storm water runoff. The James E. Van Zandt VAMC worked diligently to minimize stormwater impacts by establishing multiple stormwater ponds. Meanwhile, Perry Point VAMC collaborates with the Critical Area Commission for the Chesapeake and Atlantic Coastal Bays and the Maryland Department of Natural Resources toward environmental stewardship, including using best management practices for stormwater runoff.

3A.4. Accounting for Climate Risk in Planning and Decision Making.

VA is still early in the process of integrating climate adaptation into the planning and decision-making process. Climate adaptation will be fully integrated into the facility funding process when VA completes more detailed assessments of Department risk and integrated climate considerations into its capital planning process.

Recently, VA completed a Department-level facility vulnerability assessment of mission-critical owned facilities. This large-scale assessment is first of its type completed by VA to provide insights into climate risks. This study provides insights for facilities and will inform future studies, including on-site, detailed assessments that will identify specific mitigation projects. Some facilities are participating in a pilot project with the Technical Resilience Navigator. VA is now assessing how climate risk can be incorporated into the capital investment process for which VA prioritizes projects using the SCIP tool.

The VHA PHNPO is planning a comprehensive, 5-year data integration project to combine VHA health and demographic data with cutting-edge climate data and projections to understand the correlations between climate change and Veterans' health, including both historical trends and future impacts. Veterans represent a diverse population across the United States, with a greater likelihood of multiple comorbid medical conditions, disability, lower income, and climate-vulnerable occupations[10]. By the end of the 5-year project, the PHNPO will be able to better understand, characterize, and predict the impacts and risks of climate change on Veterans' health on a nationwide scale. These findings will ensure VA has a more comprehensive understanding of the climate risks to which Veterans are exposed and their subsequent public health and health care needs at VHA facilities and in their communities. These findings then will be integrated into existing planning and decision-making processes, supporting VHA's capacity to adapt health care delivery based on changing needs and allocate resources effectively. This process will ensure the continuous availability of high-quality, equitable health care to Veterans.

The Veterans Benefits Administration (VBA) is working to collect and analyze data and information to assess the potential for increased threats to the VA home loan program. In 2025, this information will be used to better integrate climate-related financial risk into underwriting standards, loan terms and conditions, and asset management and servicing procedures, as related to housing policies and programs.

3A.5. Incorporating Climate Risk Assessment into Budget Planning.

VA is still in the early stages of incorporating climate risk into high-level budget and planning decisions, with strategies for implementation of this process change still being developed. VA recently completed a climate vulnerability assessment of VAMCs, which begins the process of gathering information about VA climate risks for incorporation into budget and planning decisions at the facility level. Further analysis is planned to identify specific site-level projects for funding, as well as planning for integration of climate risk into the VA capital planning process.

[10] https://doi.org/10.3390/healthcare9050604.

3B. Incorporating Climate Risk into Policy and Programs.

Agency Policies Reviewed		
Climate Adaptation and Resilience	The Public Health National Program Office (PHNPO) is reviewing memoranda of understanding (MOU), Department guidance, and planning documents to better incorporate climate adaptive capacity and resilience into programs and planning. The Office of Construction and Facilities Management is reviewing requirements and risks to update facility standards. The Office of Operations, Security, and Preparedness is integrating climate risk into processes. The Veterans Benefits Administration is planning to integrate climate risk into processes as noted in section 3A.5.	VA Directive 0065, Climate Change Adaptation and Resilience, was revised in May 2022 to align with Executive Order (EO) 14057, Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability. PHNPO is continuing to develop a Climate Change and Veteran Health program within the office. PHNPO is reviewing existing public health programming to understand each program's synergies with climate change and integrating climate adaptation and resilience capabilities across all PHNPO activities. This includes updating the PHNPO's national Veterans Health Administration (VHA) surveillance tool to incorporate climate change and comprehensive demographic data to better understand, predict, and address the impacts of climate change. PHNPO is reviewing the MOU between the Centers for Disease Control and Prevention (CDC) and VHA to determine the data elements and feeds necessary to continue collaboration and data exchange to create a

Agency Policies Reviewed		
		Veteran-specific dashboard on CDC's existing Heat and Health tracker, which will incorporate Veteran-specific data to highlight the associations between heat and rates of heat-related illness among Veterans. This data will be used to inform Veterans, providers, and policymakers of Veteran heat-related risk and health care burden to better tailor and implement prevention strategies and policies for Veterans.
Nature-Based Solutions	VA has not identified policies to date that encourage nature-based solutions.	In fiscal year (FY) 2024, VA will review for opportunities to incorporate nature-based solutions.
Environmental Justice	VA Directive 0065, Climate Change Adaptation and Resilience Planning, requires that climate mitigation and adaptation efforts advance and support environmental justice, as possible. VA's recent climate vulnerability assessment included an assessment of social vulnerability, and location selection of energy saving performance contracts includes environmental justice as a selection factor.	VA Directive 0065 was revised in May 2022, which included support for environmental justice efforts. VA is identifying a lead office for environmental justice due to the expansion of the role. Pursuant to EO 14096, Revitalizing Our Nation's Commitment to Environmental Justice for All, VA is now a member of the White House Environmental Justice Interagency Council.

Agency Policies Reviewed		
Tribal Nations	In October 2023, VA sent a letter to tribal leaders via the VA Office of Tribal Government Relations outlining VA's approach to climate adaptation and offering an opportunity for input, as well as a webinar invitation.	VA did not receive any responses the letter and there were no attendees at the webinar. VA will review additional options for outreach.
Co-Benefits of Adaptation	At this time, VA climate mitigation policies have not been reviewed or revised to integrate adaptation principles and identify co-benefits.	VA will review opportunities for co-benefits in FY 2024.

VA Directive 0065, Climate Change Adaptation and Resilience, was revised in May 2022 to align with EO 14057. This update provided a framework for addressing climate adaptation at VA. Offices across VA are currently updating policies and programs, including OSP, CFM, and VBA.

3C. Climate-Smart Supply Chains and Procurement.

At risk supplies/services	Outline Actions to Address Hazard(s)	Identify Progress Towards Addressing Hazard(s)
Medical Supplies Transportation disruption	Identify alternate transportation to get products/supplies to companies and facilities.	National Stockpile Program has been used, supporting VA Emergency Management.
Energy Supply	Develop a plan to improve energy and water efficiency, as well as carbon pollution-free distributed energy generation and storage capability to support facility resilience.	VA reduced energy intensity 26%, as of fiscal year 2022, compared to the 2003 baseline. Requirements are in place for back-up power for mission critical VA medical facilities. Several facilities are currently participating in pilot project to assess facility energy resilience capabilities and needs.
Staff Transportation Disruptions and power outages	Ensure alternate options are made available, ex. acquiring mass transportation vehicles buses to pick up staff to get to work or facilities, deploying generators under consideration	Beginning to assess solutions, including weighing impact on local population.

At risk supplies/services	Outline Actions to Address Hazard(s)	Identify Progress Towards Addressing Hazard(s)
Pharmaceuticals Pharmaceutical deliveries may be delayed or undeliverable due to weather-related conditions between the pharmaceutical manufacturer, pharmaceutical distribution center, and the facility location, impacting patient care.	In communication with the Pharmaceutical Prime Vendor (PPV) directly as hazards change or new hazards are identified that would impact the program and are not sufficiently covered by the contingency plan. When hazards do occur, facilities are informed of the upcoming hazards and encouraged to order additional product in advance on the ordering website for pharmaceuticals and through messages sent within VA and from the PPV.	The following language was included in the PPV contract: “Environmental Considerations-Where possible the PPV, while ensuring the safe and proper distribution of the items ordered under this contract, shall use appropriate packing materials that have the least impact on the environment. Manufactured or disposed packing or shipping materials, which decompose or can be recycled, are preferred.” “The PPV shall provide and have in effect an emergency contingency plan for disaster recovery to protect the Government from disruption of the requirements outlined in this solicitation to include but not limited to government data, physical inventory and deliveries. The PPV is required to submit an emergency contingency plan annually or when there is a change in the plan. A plan sufficient to ensure normal operations in the event there are two or more natural disasters in different geographical regions of the country.”

The Office of Acquisition and Logistics surveyed all VA contracting activities to identify climate adaptation actions under consideration or being implemented in our supply chains and procurement processes. Many of the contracting activities follow what is mandated in the Federal Acquisition Regulation or Veterans Affairs Acquisition Regulation in relation to sustainable procurement policy and adhere to emergency management plans. VA contracting will adhere to new policy and look to develop plans as needed in the future as new sustainability policies are being finalized.

The National Acquisition Center (NAC) assessed supply interruption of any cause-strikes, product shortages, interruption in transportation routes, flooding, man-made, and natural events. Assessments were discussed during acquisition planning for the PPV contract and continue as climate adaptation information becomes available. For example, requiring multiple distribution centers from which to source supplies allows for unique delivery routes reducing the likelihood of critical pharmaceutical supply chains being compromised. The PPV approach uses a primary commercial distributer to provide a wide range of drugs to VA and other agencies.

Reliable just-in-time pharmaceutical product delivery is a significant priority for VA. VA created a current, comprehensive and actionable contingency plan for pharmaceutical distribution, which is paramount to providing patient care. Through proper planning, the PPV contract aims to reduce the environmental impact of pharmaceutical deliveries while ensuring actionable delivery options as hazards arise.

In addition, NAC High Tech Medical Equipment, PPV, and Subsistence Prime Vendor contracts have specific language related to the climate or energy efficient products as noted below. VA contracting will continue to consider all aspects of procurement and supply chain management as it considers climate risks.

Specifically, the VHA Procurement Office implemented the green purchasing requirements and provided guidance to their customers in the VHA Customer Guide. VHA implemented an Emergency Management Continuity Guide to establish a single, VHA-wide approach for providing contracting support during emergency situations including climate change events. In addition, the VHA Procurement Office identified their most at-risk supply chain items due to potential disruption by acute extreme weather events or long-term climatic change as those items made outside of the United States, particularly pharmaceuticals and Personal Protective Equipment. To address these items, the VHA Procurement Office recommended long-term, high-volume relationships with their supply providers. VA implemented 10-year contracts with Medical Surgical Prime Vendors to try to reduce its supply chain risk.

In its oversight role over the All-Hazards Emergency Cache (AHEC), PHNPO plans to conduct a comprehensive risk assessment to understand climate threats to existing AHEC storage facilities. A better understanding of these climate threats will ensure that AHEC contents, which include life-saving pharmaceuticals and medical supplies to be used in the event of a catastrophic public health

emergency, remain safe, protected, and adequate to meet public health needs. The results of this risk assessment will inform decision-making and resource planning for AHEC, including the siting of AHEC facilities and purchasing of pharmaceuticals and medical supplies in the future. Ensuring AHECs are kept updated, safe, and resilient to climate threats will ensure the VHA is able to fully respond in the event of a public health emergency.

3D. Climate Informed Funding to External Parties.

VA does not have community or regionally focused programs that directly relate to climate adaptation, but VA will pursue climate adaptation across the VA mission. VA does have an Energy Efficient Mortgage program, which provides Veterans a loan for energy efficiency improvements in their home. These improvements may improve the home's resilience to climate change, such as through better ability to maintain indoor temperature during heat waves. This program promotes climate adaptation and resilience while also helping to advance environmental justice because they are covered programs within the Justice40 Initiative, which sets a goal that 40% of the overall benefits of certain Federal climate and other investments flow to disadvantaged communities that are marginalized by underinvestment and overburdened by pollution[11].

In addition, the Home Loan Program is studying and reviewing the climate exposure of their loan portfolio of Veterans' homes across the country to better understand the risk to these homes.

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

Training and Capacity Building	
Agency Climate Training Efforts	*Engaging employees in introductory climate training:* VA does not track the total number of employees who have taken an introductory climate training. The VA internal course on Climate Change and Climate Adaptation (30 minutes) was published in January 2023. This course was promoted on internal channels, and on Earth Day by the Deputy Secretary in an all-employee email.
	Senior Executive climate training: VA does not track the total number of Senior Executives who have taken climate training. A briefing was provided on a national Senior Executive Service call on climate adaptation, including climate science education, as well as an overview of VA efforts. This briefing was preceded by an article on the topic.

[11] https://www.whitehouse.gov/environmentaljustice/justice40/.

Training and Capacity Building	
	Budget official climate training: VA does not track the total number of budget officials who have taken climate training and has not made a specific effort to engage budget officials in climate adaptation training but will review this area for future action.
	Acquisition Official climate training: VA does not track the total number of acquisition officials who have taken climate training. VA conducted outreach to make employees aware of a training course on climate adaptation for the VA acquisition workforce, "FAC 095 Climate Adaptation for Program Managers."
	Developing a climate-informed workforce: VA is working to identify key roles across the Department and actions that may support climate adaptation through each role. Further details in the following section.
Agency Capacity	*Department staff with a role related to climate change:* From environmental program managers to emergency managers to engineers to health care providers to capital planning to contracting, there are thousands of VA employees with roles related to climate adaptation. VA is reviewing training options to engage staff in particular roles in how they can contribute to VA efforts. This review includes exploring training options to ensure health care providers can meet evolving health care needs due to climate impacts. VA plans to develop a comprehensive review of relevant professions and actions that could support climate adaptation in their role over the next year.

VA made impactful efforts to improve climate literacy across several areas in recent years. The first VA training course on climate adaptation was published in January 2023, with approximately 200 employees taking the course to date. VA engaged Senior Executive Service (SES) officials for the first time on climate adaptation, with a presentation from the Chief Sustainability Officer (CSO) on a national call and an article. Presentations were provided to professionals in multiple fields on national calls, such as emergency management and environmental management. VA is reviewing position descriptions for opportunities to incorporate climate responsibilities. Going forward, VA will develop a review of professions at VA that pertain to climate adaptation and actions to leverage their abilities to enhance VA resilience. VA will review current performance measure requirements for sustainability and develop strategies for improvement.

In FY 2024, PHNPO will identify key stakeholders (community organizations, state and local public health authorities, and Federal agencies) and partnerships needed to carry out climate and Veterans health efforts. PHNPO will consult with Veterans and health care providers to conduct a baseline assessment of their climate-related health concerns and needs, as well as establish a regular feedback mechanism for Veterans' and providers' input. Informed by the results, as well as climate-related health risk

assessments, PHNPO will develop climate adaptation and readiness training for health care providers, medical directors, and Veteran patients, as appropriate. This training will help stakeholders understand (a) climate change impacts on Veterans' health, including community, patient, and facility climate-related risk, and prevention and treatment strategies to mitigate these impacts and (b) how climate change will affect health care delivery and how providers can respond to meet these additional health care needs to best serve Veterans. In FY 2025, the PHNPO will produce resources for the VA enterprise more broadly on emergent climate-related health threats to VA health care delivery, collaborating with relevant VA offices, as needed.

TIMELINE SUMMARY FOR MAJOR MILESTONES.

Section of the Implementation Plan	Description of Milestone	Climate Risk Addressed	Indicators for success
3A.1. Addressing Climate Hazard Exposures and Impacts Affecting Federal Buildings	Review and update climate-resilience standards for sites and facilities fiscal year (FY) 2024.	All major climate hazards	Complete a full review and update of facility standards to address climate resilience requirements and address related risks.
	Identify and remediate climate risks to existing facilities (FY 2025).	All major climate hazards	Conduct risk assessments at all existing facilities and determine estimated costs for enhancements to harden new construction and renovations to be climate ready. Related project funding requests will be made subsequently.
	Plan for integrating climate risk into capital planning (FY 2024 and FY 2025).	All major climate hazards	Develop a process for integrating climate risk into the VA Strategic Capital Investment Plan.
	Plan to improve energy efficiency and energy storage to support resilience during power outages (FY 2024).	All major climate hazards	Develop plan to improve energy and water efficiency, as well as carbon pollution-free distributed energy generation and storage capability to support facility resilience. Several facilities are participating in pilot project to assess facility resilience capabilities and needs.
	Integrate climate readiness into emergency preparedness processes (FY 2024).	All major climate hazards	Develop a preparedness and resilience framework, reviewed annually. Develop an annual capabilities and threat assessment.

Section of the Implementation Plan	Description of Milestone	Climate Risk Addressed	Indicators for success
3A.2. Addressing Climate Hazard Exposures and Impacts Affecting Federal Employees	Improve public health data-sharing (FY 2024) and surveillance (FY 2025).	All major climate hazards	Establish and update the existing climate and health data exchanges with the Centers for Disease Control and Prevention (CDC) and other Federal agencies, generating usable data this year. Enhance existing public health surveillance tool and include climate metrics and forecasting (including air quality, temperature, heat index, and natural disasters) and climate-related changes to communicable and non-communicable diseases.
3B. Climate Risk Assessments	Climate data/projections and comprehensive demographic data integrated with Veteran patient health data into surveillance platform (FY 2025). Data analyzed to produce understanding of correlations between climate impacts and Veteran health (FY 2026).	All major climate risks	Development of an internal user-friendly surveillance dashboard that shows the impacts of climate risks on health outcomes prevalent among Veterans; the impacts on different Veteran subpopulations; and climate and health outcome trends over time.

Section of the Implementation Plan	Description of Milestone	Climate Risk Addressed	Indicators for success
3B. Incorporating Climate Risk into Policy and Programs–Agency Policies Reviewed	CDC-Veterans Health Administration (VHA) heat-related illness data integration completed and Veteran-specific Heat and Health Tracker published for internal and public use (FY 2024).	Extreme heat	Publication of a public-facing CDC-VHA Heat and Health tracker, updated weekly, on the CDC website that shows Veteran-specific data of the correlations between heat, heat trends, and heat-related illness rates nationwide.
3E. Agency Climate Training Efforts	Climate adaptation and resilience training and education developed for health care providers, medical directors, Veteran, as appropriate, and updated training made available to relevant stakeholders at regular intervals (FY 2025).	All major climate risks	Completion and dissemination of training and educational materials about climate adaptation and resilience topics to providers and patients.
3C. Climate-Smart Supply Chains and Procurement	Identify and support All-Hazards Emergency Caches (AHECs) housed at facilities at the highest risks of various specific hazards that are likely to threaten critical infrastructure/utilities.	All major climate hazards	Successful identification of and collaboration with local AHEC staff at facilities housing at-risk AHECs to assure adherence to infrastructure and security requirements and develop mitigation strategies to preserve the integrity of AHEC contents and deployment in the event of a public health emergency, including a climate hazard.

Section of the Implementation Plan	Description of Milestone	Climate Risk Addressed	Indicators for success
3A.4. Accounting for Climate Risk in Planning and Decision Making	Integrate climate risks into VBA Home Loan Program processes (FY 2025).	All major climate hazards	Integrate climate-related financial risk into underwriting standards, loan terms and conditions, and asset management and servicing procedures, as related to housing policies and programs.

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 Climate Action Plan (CAP)	**Process Metric**	**Agency Response**
3A. Addressing Climate Hazard Impacts and Exposure	Step 1: Agency has an implementation plan for 2024 that connects climate hazard impacts and exposures to discrete actions that must be taken. (Y/N/Partially) Step 2: Agency has a list of discrete actions that will be taken through 2027 as part of their implementation plan. (Y/N/Partially)	Yes, this 2024 CAP contains specific actions to address climate impacts, including actions for the next several years.
3A.4. 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)	Partially. VA recently completed a Department facility vulnerability assessment of mission-critical owned facilities. VA is now assessing how climate risk can be incorporated into the capital investment process.
3A.5. 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)	Partially. VA is still in the early stages of incorporating climate risk into high-level budget and planning decisions, with strategies for implementation of this process change still being developed.
3D. Climate Informed Funding to External Parties	Step 1: By July 2025, agency will identify grants that can include consideration and/or evaluation of climate risk. Step 2: Agency modernizes all applicable funding announcements/grants to include a requirement for the grantee to consider climate hazard exposures. (Y/N/Partially)	Yes, VA funding to external parties will be reviewed for the opportunity to include climate risk and VA will update if applicable.

Key Performance Indicator: Data management systems and analytical tools are updated to incorporate relevant climate change information by 2027.		
Section of the CAP	**Process Metric**	**Agency Response**
3A. Addressing Climate Hazard Impacts and Exposure	Agency has identified the information systems that need to incorporate climate change data and information and will incorporate climate change information into those systems by 2027. (Y/N/Partially)	Yes, data systems in many areas will be updated to include climate information, ranging from public health to home loans.
Key Performance Indicator: Agency CAPs address multiple climate hazard impacts and other stressors, and demonstrate nature-based solutions, equitable approaches, and mitigation co-benefits to adaptation and resilience objectives.		
Section of the CAP	**Process Metric**	**Agency Response**
3B. 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, VA will incorporate these criteria as applicable by this deadline.
Key Performance Indicator: Federal assets and supply chains are evaluated for risk to climate hazards and other stressors through existing protocols and/or the development of new protocols; response protocols for extreme events are updated by 2027.		
Section of the CAP	**Process Metric**	**Agency Response**
3C. Climate-Smart Supply Chains and Procurement	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. (Y/N/Partially) Step 1: Agency has assessed climate exposure to its top five 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)	Yes, the top supply chain concerns have been assessed above and VA will complete further planning by the deadline.

	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, VA created a current, comprehensive and actionable contingency plan for pharmaceutical distribution.
Key Performance Indicator: By 2027, agency staff are trained in climate adaptation and resilience and related agency protocols and procedures.		
Section of the CAP	**Process Metric**	**Agency Response**
3E. Climate Training and Capacity Building for a Climate Informed Workforce	Step 1: By December 2024, 100% of agency leadership have been briefed on current agency climate adaptation efforts and actions outlined in their 2024 CAP. (Y/N/Partially) Step 2: Does the agency have a Climate 101 training for your workforce? (Y/N/Partially) If yes, what percent of staff have completed the training? Step 3: By July 2025, 100% employees have completed climate 101 trainings. (Y/N/Partially)	Yes, VA will brief Department leadership on the 2024 CAP and associated efforts. Yes, VA has an introductory climate course, which ~200 employees have taken. Partially. Due to the high demands of health care-specific training, it is challenging to add more mandatory trainings; however, VA will increase participation in climate-related training.

4B. Adaptation in Action

Due to the many areas of focus of the VA 2021 CAP, and engagement across the Department to pursue its objective, VA has made progress to develop climate resilience in many areas.

VA completed annual inspections and exercises at VAMC housing AHEC programs and reviewed results, with discussions in-progress about potential improvements. This program helps to ensure that VA has critical supplies, even in the case of a supply chain disruption. Work is on-going to create a more robust public health surveillance system that integrates climate change metrics and demographic data representative of social determinants of health, linked to Veteran health record information, which will characterize how climate change is affecting Veteran health currently and help predict future health impacts and risks. Currently, VA is assessing emerging and high-consequence pathogen infection trends associated with climate change.

VA completed a Preparedness and Resilience Strategy in May 2023 that outlined critical steps for integrating climate change resilience into VA risk management. VA is using a prototype “VA Risk and Hazard Exposure Tool” to develop a climate-centric, data-driven

evaluation method, focused on a shared understanding of risk to mission, Veterans, and VA workforce.

VA completed a facility climate vulnerability assessment, incorporating a survey at the facility level and social vulnerability of the local communities to augment climate data. This report will inform prioritization for more in-depth, on-site assessment of risk and mitigation projects. VBA Home Loan Program completed an initial assessment of the climate risk for real estate owned properties nationally.

The VA climate literacy strategy includes building employee understanding of climate science and impacts, increasing knowledge of VA adaptation efforts, and engaging with professional networks within VA. In October 2022, the VA CSO presented to the VA SES community on VA efforts on climate adaptation. This presentation was preceded by an article on climate adaptation in the SES newsletter. In 2023, VA climate staff presented on national calls within VA. In January 2023, VA launched a 30-minute climate adaptation training course designed for all employees and posted on the VA internal training portal. The training was promoted as an action for employees to take in an all-employee email from the VA Acting Deputy Secretary. In February 2023, VA conducted a survey of a random sample of VA employees to develop a baseline measure of VA climate literacy. This survey will be repeated in the future to assess VA progress in improving climate literacy.

Appendix A: Risk Assessment Data

The Federal Mapping App uses the following data:

Buildings

Buildings data comes from the publicly available Federal Real Property Profile (FRPP). The General Services Administration (GSA) maintains FRPP data and Federal agencies are responsible for submitting detailed asset-level data to GSA annually. 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 (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 five personnel. Despite these adjustments, this data is still useful for screening-level exposure assessments to provide a sense of key areas of climate hazard exposure for agency personnel.

Climate Hazards

The climate data used in the risk assessment comes from the data in Climate Mapping for Resilience and Adaptation (CMRA) Assessment Tool. When agency 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. Additional information regarding Alaska, Hawaii, U.S. Territories, and marine environments has been included as available.

In addition to this data, VA recently completed an agency-wide climate vulnerability assessment that built upon a review of other Federal agencies approaches to assessing vulnerability. This assessment, conducted by a third-party contractor, used multiple data sources to assess physical exposure to climate risk, including the FEMA National Risk Index, the Intergovernmental Panel on Climate Change (IPCC) World Atlas, and the U.S. Department of Agriculture Forest Service Wildfire Risk to Communities dataset. In particular, the IPCC data provided future scenarios for projecting climate hazard exposure. Limiting the scope to VA's most mission-critical facilities, 171 VAMCs were assessed, while 46 cemeteries received a more limited assessment. Each facility's address was used to determine a longitude and latitude for assessing its hazard exposure with the data tools. Facilities were ranked on a range from 1 to 5 for each climate hazard based on the exposure data, with 5 representing the highest climate vulnerability.