

## Department of the Interior Departmental Manual

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**Effective Date:** 09/28/2023  
**Series:** Environmental Quality Programs  
**Part 523:** Climate Change Adaptation  
**Chapter 1:** Climate Change Policy

**Originating Office:** Office of Policy Analysis

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### 523 DM 1

1.1 **Purpose.** This chapter establishes Department of the Interior (Department) policy and provides guidance to Bureaus and Offices for addressing climate change impacts on the Department's mission, programs, operations, and personnel.

1.2 **Scope.**

A. The policy in this chapter applies to the Department and its component Bureaus and Offices.

B. This chapter does not apply to the Office of the Inspector General.

1.3 **Definitions.**

A. Climate Change. Changes in averages and variability of weather conditions that persist over multiple decades or longer. Climate change encompasses both increases and decreases in temperature, as well as shifts in precipitation, changing risk of certain types of severe weather events, and changes to other features of the climate system.

B. Climate Change Adaptation. In human systems, the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities. In natural systems, the process of adjustment to actual climate and its effects; human intervention may facilitate adjustment to expected climate and its effects.

C. Climate Projections. Results from global climate models characterizing future climate conditions under climate change scenarios (see I. below).

D. High-Quality Information. For the purposes of this chapter, high-quality information is information that promotes reasoned, fact-based agency decisions. Information that meets the standards for objectivity, utility, and integrity as set forth in the Department's Information Quality Guidelines would qualify as high-quality information.

E. Indigenous Knowledge (IK). A body of observations, oral and written knowledge, innovations, practices, and beliefs developed by Indigenous Peoples through interaction and

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experience with the environment. It is applied to phenomena across biological, physical, social, cultural, and spiritual systems. IK can be developed over millennia, continues to develop, and includes understanding based on evidence acquired through direct contact with the environment and long-term experiences, as well as extensive observations, lessons, and skills passed from generation to generation. IK is owned by Indigenous Peoples and is often intrinsic within customary or traditional governance structures and decision-making processes. Other terms such as Traditional Knowledge(s), Traditional Ecological Knowledge, Tribal Ecological Knowledge, Native Science, Indigenous Science, and others, are sometimes used to describe this knowledge system. This chapter uses the term Indigenous Knowledge (IK) throughout.

F. Indigenous Peoples. Native Americans, Alaska Natives, Native Hawaiians, Pacific Islanders, and others whose ancestors have occupied what is now known as the United States and its territories since time immemorial, including members of Tribal Nations.

G. Nature-Based Solutions. Sustainable management and use of natural features and processes to tackle socio-environmental challenges including, but not limited to, climate change, natural resource management, water security, human health, biodiversity loss, and disaster risk management.

H. Risk. Threats to life, health and safety, the environment, economic well-being, and other things of value. Risks are often evaluated in terms of how likely they are to occur (probability) and the damages that would result if they did happen (consequences).

I. Scenarios. Sets of assumptions used to help understand potential, plausible future conditions. For climate change scenarios, technological capabilities, societal choices, population growth, and land use are considered as factors which can influence future climate conditions. Scenarios are neither predictions nor forecasts. Scenarios are commonly used for planning purposes.

J. Tribal Nation or Tribe. An Indian or Alaska Native tribe, band, nation, pueblo, village, or community that the Secretary of the Interior acknowledges as a Federally recognized Tribe pursuant to the Federally Recognized Indian Tribe List Act of 1994, 25 U.S.C. § 5130.

K. Uncertainty. An expression of the degree to which future climate is unknown. Uncertainty about the future climate arises from the complexity of the climate system and the ability of models to represent it, as well as the inability to predict the decisions that society will make. There is also uncertainty about how climate change, in combination with other stressors, will affect people and natural systems.

1.4 **Background**. Climate change poses significant risks to the Department's mission, programs, operations, infrastructure, and personnel. Climate change and ecological transformation demand a shift in decision-making from earlier management approaches that often relied on historical conditions. Dramatic changes are occurring within our lifetime and managing for the historical baseline is no longer possible. Many of the challenges associated with climate change are also likely to have a disparate impact on underserved and underrepresented communities.

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Actions the Department takes now, or does not take, will have consequences long into the future. Understanding and addressing the effects and risks of climate change in Departmental operations, planning, and decision making is integral to the Department's ability to adapt to climate change effectively and efficiently to meet the Department's management and trust responsibilities. To accomplish successful adaptation, the Department's traditional approaches to planning and decision making must be augmented with consideration of climate models, scenarios, IK, risk analyses, exposure assessments, vulnerability assessments, and implementation of new decision frameworks.

1.5 **Policy.** It is the policy of the Department to effectively and efficiently adapt to the challenges posed by climate change to its mission, programs, operations, infrastructure, and personnel; and to protect our future climate by deploying clean energy technologies and using our landscapes for climate benefit. The Department will use high-quality information, including IK where appropriate, about the Earth's changing climate system to inform planning and decision-making. The Department will coordinate an appropriate response to changing conditions that affect land, water, wildlife, cultural and tribal resources, infrastructure, and other assets. Climate change may require a transition from management based on historical conditions to one based on ecological transformation. The Department will integrate climate change adaptation strategies into its policies, planning, programs, and operations, including, but not limited to, park, refuge, and public land management; Outer Continental Shelf management; habitat management; conservation of species and ecosystems; services and support for Indigenous Peoples and other underserved communities; protection and restoration of cultural, archeological, and tribal resources; water management; energy and mineral leasing, permitting, authorization of development and reclamation; scientific research and data collection; land acquisition; management of employees and volunteers; visitor services; supply chain management; construction; use authorizations; and infrastructure and other asset management.

A. Consistent with existing laws and regulations, it is the Department's policy to:

(1) Consider climate change and incorporate climate change adaptation as a routine component of planning and decision-making.

(a) Incorporate high-quality information from observations of current climate change, and future climate projections when undertaking planning activities, setting priorities for scientific research and assessments, and making major investment decisions.

(b) Incorporate high-quality information when developing and evaluating alternatives that meet the purpose and need for any agency action evaluated under the National Environmental Policy Act, including the no action alternative, and consistent with any Council on Environmental Quality guidance.

(c) Ensure that climate change adaptation is grounded in high-quality information, including IK where appropriate, taking into account an understanding of effects, risks, and vulnerabilities, including social and economic considerations.

(d) Recognize the inherent uncertainty associated with climate change and use well-defined and established approaches, as appropriate, for managing in the context of uncertainty, commensurate to decision impacts, drivers, reversibility, and warranted level of analysis, including: (1) vulnerability assessments, (2) scenario planning, (3) adaptive management, and (4) other risk management or other decision-making approaches. When selecting scenarios depicting future climate change, wherever feasible use multiple scenarios that span a wide range of potential outcomes, consistent with 526 DM 1, *Applying Climate Change Science*.

(e) Plan and manage for climate change and environmental response, including both current and anticipated future conditions, and not just persistence of historical environmental conditions, as climate change will continue to drive environmental conditions beyond the bounds of historical variability.

(f) Identify and avoid investments that are likely to be undermined by climate change impacts, such as investing in infrastructure likely to be adversely affected by repeated floods or inundation, or planting or introducing species, populations, or genotypes vulnerable to changes in temperature or precipitation patterns.

(g) Avoid maladaptive actions, that is, actions that lead to increased risk of adverse climate-related outcomes such as vulnerability to climate change, or diminished welfare, now or in the future.

(h) Conduct risk analyses as part of adaptation planning prior to any decisions that would move species beyond their historical range.

(i) Assess the vulnerability and promote adaptation of mission critical and mission dependent infrastructure and facilities. This includes infrastructure and facilities: owned and operated by the Department; authorized, leased, or otherwise permitted by the Department or its Bureaus and Offices, such as energy development, electric transmission lines, roads, pipelines, communications sites, and Recreation and Public Purposes leases; and sites and facilities leased from or through General Service Administration (GSA).

(2) Promote partnerships that enable efficiency and effectiveness in understanding and responding to climate change.

(a) Proactively engage diverse partners and stakeholders to address climate change at the earliest stages of planning processes and environmental reviews on applicable proposed actions.

(b) Use Bureau or Office-specific networks, the network of Climate Adaptation Science Centers, and other partnerships such as the United States Department of Agriculture Climate Hubs and National Oceanic Atmospheric Administration Regional Integrated Sciences and Assessments (RISA) Program to increase understanding of climate change effects; build on and monitor existing response efforts; coordinate adaptation strategies

across multiple sectors, geographical scales, and levels of government; and inform decision makers consistent with 604 DM 1, *Implementing Landscape-Level Approaches to Resource Management*.

(c) Promote landscape-level, ecosystem-based management approaches to enhance the resilience and sustainability of linked human and natural systems.

(3) Ensure that the Department and its partners' traditional approaches to planning and decision-making are augmented and informed by current and future climate conditions, including conditions based on future climate projections.

(a) Avoid "no-action" outcomes related to climate trajectories and uncertainties of the future, even when there is ambiguity about the optimal action or decision, by utilizing climate modeling to simulate, and thereafter respond to, the physics, chemistry, and biology that influence the Earth's climate system.

(b) Include consideration of a range of scenarios and output from multiple climate model simulations to reflect plausible changes in the climate system over appropriate time horizons. At a minimum, the scenarios, time horizons, and model simulations used should address the highest risk situations relevant to the resource, asset, policy, action, or decision being analyzed.

(c) Consider IK where appropriate and available, such as understanding climate change effects, baseline climate and ecosystem conditions, future conditions, ecosystem thresholds, and scenario selection.

(4) Ensure consistent and in-depth engagement with Indigenous Peoples to address climate change impacts on health, infrastructure, livelihoods, economy and society, traditional practices, natural and cultural resources, and to apply adaptation strategies.

(5) Address the impacts of climate change on the U.S. territories and impacts on the Freely Associated States consistent with the Compacts of Free Association and other international agreements.

(6) Advance approaches to managing linked human and natural systems, including nature-based solutions, that help reduce the current and future impacts of Bureau or Office authorized actions on natural and cultural resources increasingly vulnerable due to climate change, consistent with the Department's Public Land Policy provided in 600 DM 1, including:

(a) Conserve ecosystem diversity, including habitats, communities, and species.

(b) Conserve and restore core habitat areas and the key habitat linkages among them.

(c) Anticipate and prepare for shifting wildlife movement patterns, ranges, and habitats.

(d) Maintain key ecosystem services.

(e) Monitor, prevent, and slow the spread of invasive species (defined in Executive Order 13751 as, with regard to a particular ecosystem, a non-native organism whose introduction causes or is likely to cause economic or environmental harm, or harm to human, animal, or plant health).

(f) Focus development activities in ecologically disturbed areas when possible, and avoid ecologically sensitive landscapes, culturally sensitive areas, and crucial wildlife corridors.

(7) Routinely track, record, and report on the progress and results of climate change adaptation activities to help further public understanding, encourage the engagement of partners, promote the conduct of similar activities, and better inform decision making on a broader scale.

B. The Department will promote existing processes and, when necessary, institute new processes to:

(1) Conduct vulnerability assessments of anticipated or current climate change impacts.

(2) Develop and implement comprehensive climate change adaptation strategies based on vulnerability assessments and other factors.

(3) Include measurable goals and performance metrics in all management plans that address climate change adaptation, regularly assess and report on whether adaptive actions are achieving desired outcomes and, where appropriate, include measures in employee performance appraisal plans.

(4) Facilitate and support climate change data management, integration, and dissemination (both internally and externally where appropriate) to enable broad use of scientific information for management decisions.

(5) Coordinate with interagency teams such as the United States Global Change Research Program, the National Invasive Species Council, and the National Ocean Council; and undertake actions consistent with relevant national strategies and plans that address natural and cultural resources.

(6) Coordinate, where practicable, with Indigenous Peoples, State, and other non-Federal organizations.

(7) To the extent practicable, ensure that Bureau and Office guidance related to planning for climate change is consistent across the Department.

(8) Promote climate literacy across the Department's workforce to enable effective consideration and incorporation of climate change in planning and decision-making.

#### 1.6 Responsibilities.

A. The Assistant Secretary - Policy, Management and Budget. Oversee the Department's compliance with this policy, and provide staff support to monitor this policy's implementation and coordinate budgets and practices supporting this policy.

B. Assistant Secretaries. Ensure that their Bureaus and Offices comply with the policy in this chapter.

C. The Office of Policy Analysis (PPA).

(1) Serve as the lead Office for revising this policy when warranted by changes in technical information, Federal statutes, regulations, Department policy, or other conditions. Any Bureau or Office can initiate changes by contacting the PPA.

(2) Solicit and consider the views of all interested Departmental Bureaus and Offices when the Department contemplates changes to this policy. In recommending revisions to this chapter, Bureaus and Offices will provide the PPA with appropriate supporting information.

(3) When requested, provide technical assistance and guidance to Departmental Bureaus and Offices for understanding and implementing this policy.

D. Heads of Bureaus and Offices.

(1) Ensure that their organizations comply with this policy; report on a regular basis the progress made in implementing this policy to their respective Assistant Secretary and the PPA; and communicate the requirements of this policy effectively to partners.

(2) Develop and periodically update appropriate Bureau or Office policy and guidance to address climate change adaptation as it relates to Bureau and Office specific missions and authorities consistent with this policy.

(3) Incorporate climate change adaptation into planning processes and develop and implement climate change adaptation plans as appropriate; formally report on the progress made against those plans on a regular basis.

(4) Appoint employees with appropriate technical expertise to promote consistency, transparency, and rigor with respect to incorporating climate science information into the planning and decision-making process. Ensure that staff involved in the use of climate science information have access to appropriate training to promote climate literacy.

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(5) Establish and support an internal climate adaptation network within the Bureau or Office and appoint employees with appropriate technical expertise to serve on work groups of the Climate Task Force or any successor Department-wide task force that addresses climate change impacts.

(a) Such work groups must include representatives of the Bureau of Indian Affairs, Bureau of Land Management, Bureau of Ocean Energy Management, Bureau of Reclamation, Bureau of Safety and Environmental Enforcement, National Park Service, Office of Surface Mining Reclamation and Enforcement, U.S. Fish and Wildlife Service, U.S. Geological Survey, Office of Environmental Policy and Compliance, and Office of Policy Analysis.

(b) Bureaus and Offices not identified in 5(a) above are encouraged, but not required, to appoint a representative to serve on such work groups.

(6) Provide support for Departmental reviews of climate change adaptation activities and associated policies when requested.

(7) Ensure that the Department's staff have the appropriate experience and training in climate change adaptation and planning processes, and where appropriate, include measures in employee performance appraisal plans.

(8) Review and update existing decision-making processes and management plans to allow the integration of the principles and values identified in this policy.

(9) Ensure full engagement with Climate Adaptation Science Centers (CASC) by providing executive-level representation on the Stakeholder Advisory Committee for each CASC, as appropriate.

(10) Appoint employees with appropriate technical expertise to participate in climate change adaptation groups involving other Federal, state, and local agencies, Indigenous Peoples, and other entities, as appropriate.

(11) Address the vulnerability of mission critical and mission dependent infrastructure and facilities. This includes seeking expert assistance, as appropriate, and partnering with GSA with respect to sites and facilities leased from or through GSA.

1.7 **Legal Effect.** This policy is intended to improve the internal management of the Department. It does not create any right or benefit, substantive or procedural, enforceable at law or in equity by any person against the United States, its agencies, its officers or employees, or any other person.