

Noblis Helps Federal Agencies Meet Climate Resiliency Planning Requirements

Providing expertise, resources and tools that inform infrastructure plans, strategies and investments

ENERGY & ENVIRONMENT



The Challenge

Climate change now poses grave risks to our nation and the world. Whether or not agencies have previously planned for climate resiliency, it is essential to do so now, as climate change is recognized as a direct threat to our security and the infrastructure that federal agencies rely on to carry out their missions. In fact, [the recent Executive Order on Tackling the Climate Crisis at Home and Abroad \(14008\)](#) requires all government agencies to incorporate climate considerations in strategy and planning going forward.

Since pre-industrial times, the average temperature of our planet has risen more than 2 degreesⁱ Fahrenheit. The 'greenhouse effect' describes how the atmosphere reacts to emissions from burning fossil fuels, trapping heat and warming the earth. This warming has resulted in increased heat, drought, wildfires and sea level rise. Scientists have concluded that this global warming also contributes to increased frequency and intensity of extreme weather, which results in sudden, severe, costly damage and disruption to our national infrastructure and surrounding communitiesⁱⁱ.

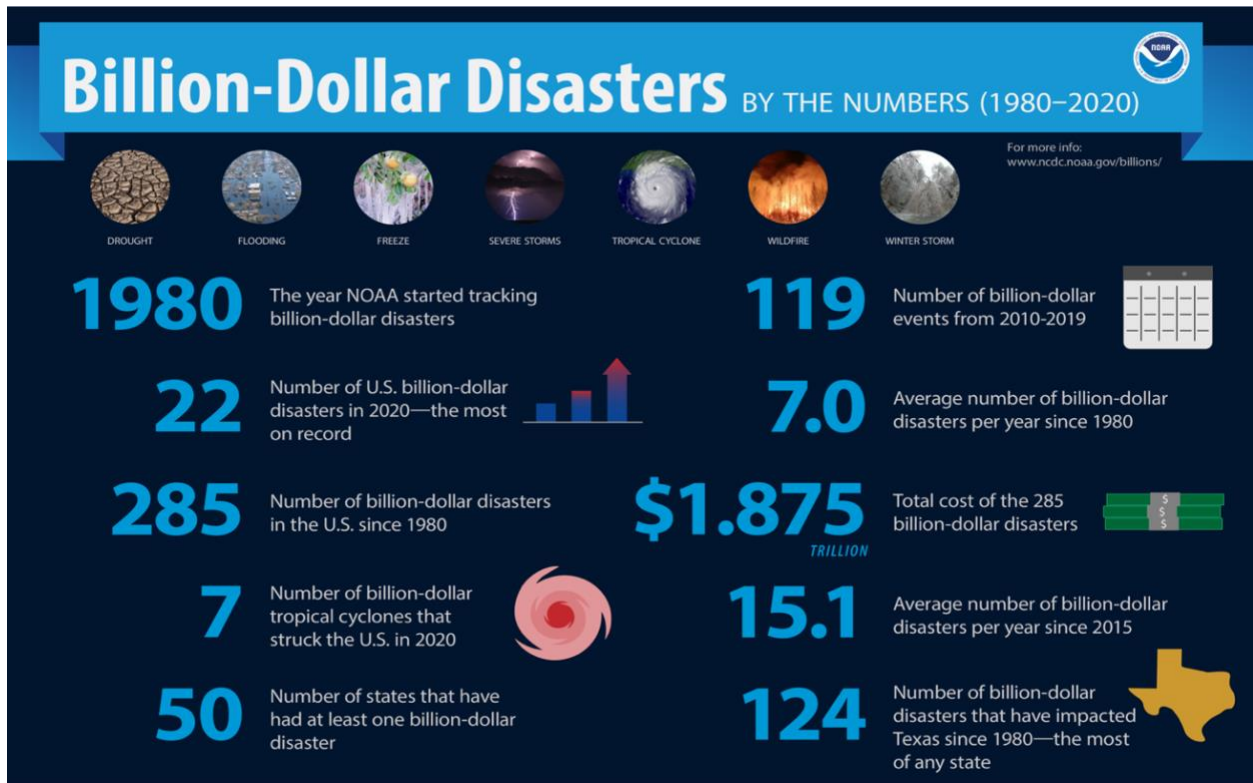


Figure 1: Billion-Dollar Disasters: Presents the numbers of monetary loss generated over the years from climate change. Image Source: <https://www.ncdc.noaa.gov/billions/>

2020 marked the tenth consecutive year with eight or more billion-dollar weather-related disasters in the United Statesⁱⁱⁱ (Figure 1). Beyond expense and inconvenience, these disasters often also impede our energy and water supply, public transportation, roads and bridges, communication networks, airfields, ports and buildings. They directly affect our nation’s people: their health and welfare, access to services and their ability to carry out federal and civic missions.



Our Approach

With over 25 years of experience helping clients anticipate future impacts of climate change, Noblis is ready to assist federal agencies in their efforts to incorporate climate resiliency into their plans and strategies. We are committed to promoting enduring facilities, operations and best practices that help ensure a sustainable and resilient future. Serving as a government technical and policy advisor, Noblis' work enables our clients to anticipate climate impacts on the natural, built and virtual infrastructure so crucial to mission effectiveness.

Noblis is helping agencies identify the nature, magnitude and likelihood of climate-related impacts and assists them in creating action plans that may mitigate those risks. We provide online solutions and tools that enable government leaders to convert data into information that informs investment decisions that support mission assurance.

We have helped federal agencies prepare their annual Strategic Sustainability Performance Plans for over a decade. Our solutions increase energy security, help reduce operational impacts on the environment, mitigate the effect of climate change and ensure efficient use of resources.

Use Case: GSA Sustainable Facilities and Carbon Footprint Tools

Government agencies need solutions and strategies that consider the threat of future climate change. Noblis works together with our federal government partners to address capability gaps in sustainability and climate resiliency planning. For example, Noblis launched the GSA Sustainable Facilities Tool (SFTool.gov)^[1], which provides learning and training resources to prepare facility managers, purchasing agents, designers, tenants, and the simply curious to take actions that support efficient, healthy buildings and environmentally-responsible purchasing (Figure 2). Also, for GSA, Noblis designed the Carbon Footprint [Tool](#)^[2], which allowed 26 federal agencies to develop comprehensive inventories of their GHG emission.

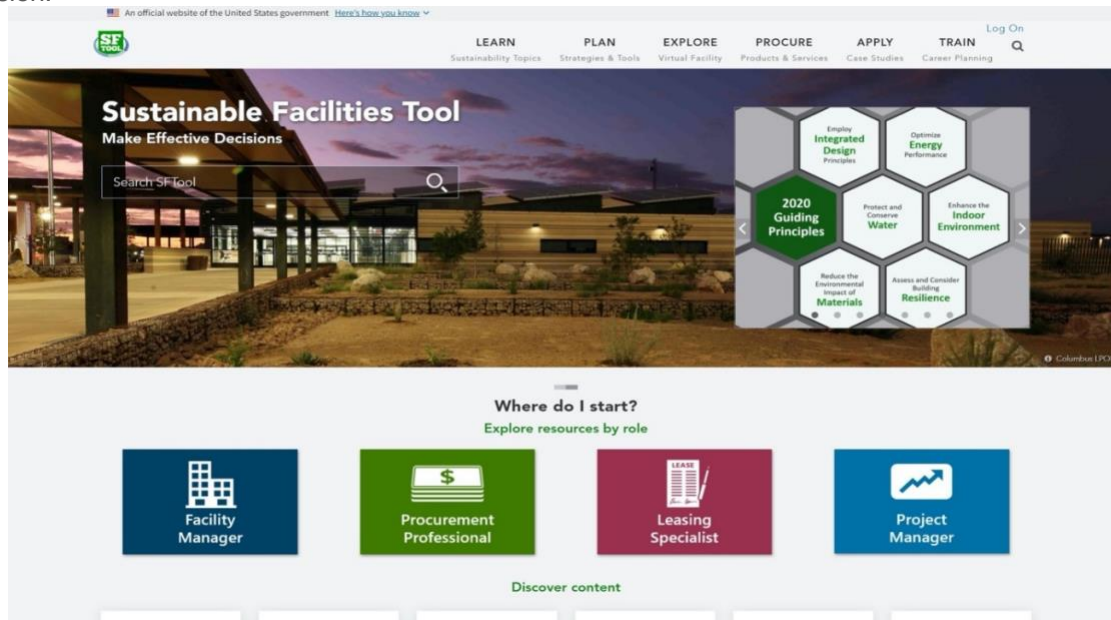


Figure 2: The GSA Sustainable Facilities Tool displays the interactive Platform Noblis created to guide federal managers in sustainability topics.



Use Case: DoD Sea Level Rise Tool

Together with Department of Defense (DoD) clients, Noblis designed and developed the Sea Level Rise Tool which integrates diverse data sets to generate information that helps military planners design climate-resilient solutions. This project was a joint effort to develop a report and web-based tool on regional sea level scenarios for coastal risk management between the DoD Strategic Environmental Research and Development Program (SERDP) and Environmental Security Technology Certification Program (ESTCP) offices, the National Oceanic and Atmospheric Administration (NOAA), the United States Army Corps of Engineers (USACE) and the Office of the Oceanographer of the Navy.

Noblis experts continue to maintain and enhance the Regionalized Sea Level Change & Extreme Water Level Scenarios tool which provides a screening-level vulnerability assessment of DoD site-specific scenarios of future sea level change for the years 2035, 2065 and 2100 for all coastal DoD installations and sites worldwide (Figure 3). The tool is now used to help DoD installation and site planners incorporate climate and extreme weather-resiliency considerations in their master plans. The Sea Level Rise tool is hosted on Amazon Web Services (AWS) GovCloud and consists of a publicly available site and a Common Access Card-enabled site, demonstrating our team’s experience with cloud-based environments and varied authentication schemes.

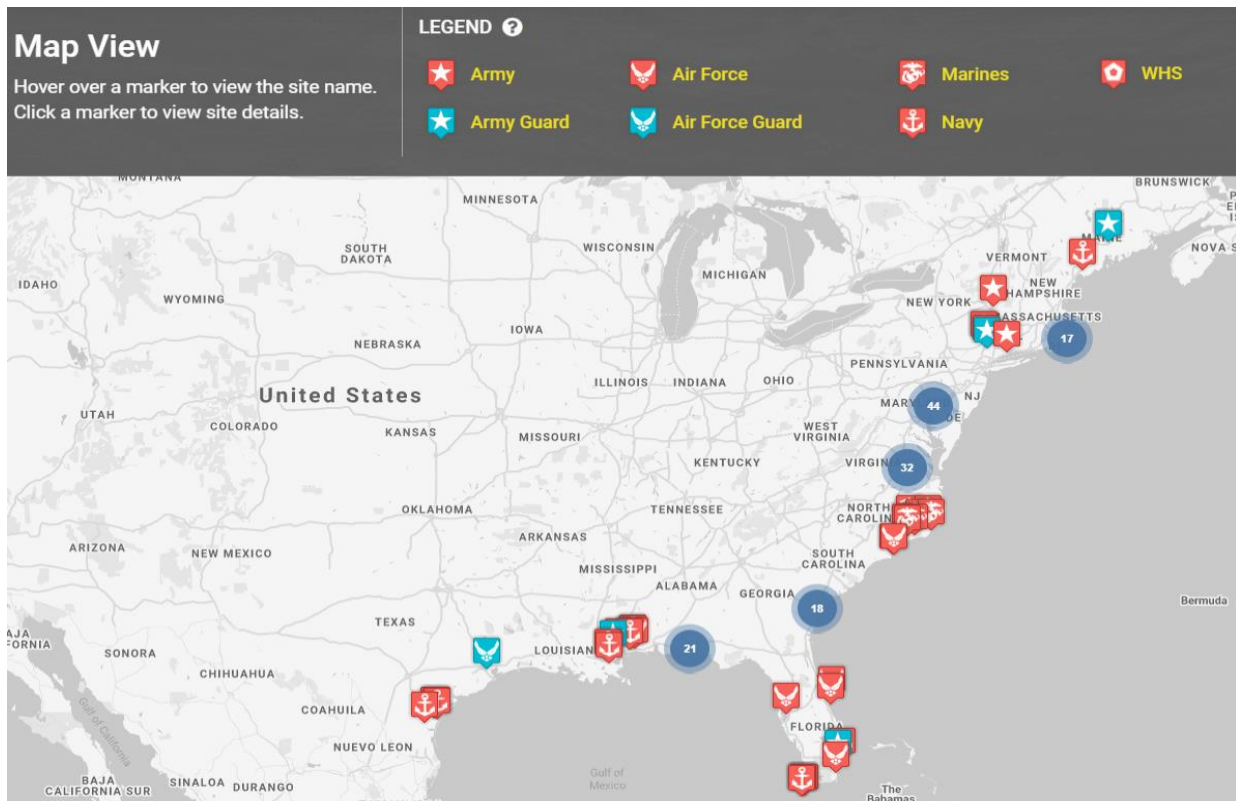


Figure 3: The Sea Level Rise Tool displays a map of DoD coastal installations across services



Our Experts Are Available to Work with Your Agency

Noblis' expertise in federal sustainability policy development and in-depth understanding of federal climate resiliency requirements, capabilities and tools uniquely positions us to help agencies craft climate resiliency strategy. We understand both what is essential to the government and the current state of the science.

Our extensive network includes leaders from the public sector, academia and industry throughout the sustainability domain. We are here, and ready to help you build a more sustainable future for your agency and our nation.

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To learn more about Noblis Energy and Environment capabilities and explore our offerings, impacts and insights visit noblis.org/energy-environment/.

About Noblis

Noblis is a dynamic science, technology and strategy organization dedicated to creating forward-thinking technical and advisory solutions in the public interest. We bring the best of scientific thought, management and engineering expertise together in an environment of independence and objectivity to deliver enduring impact on federal missions. Noblis works with a wide range of government clients in the defense, homeland security, intelligence and law enforcement and federal civil sectors. Together with our wholly owned subsidiaries, we tackle the nation's toughest problems and apply advanced solutions to our clients' most critical missions. Learn more at noblis.org.

Noblis fosters a culture of collaboration. Our Research Centers drive scientific outcomes to address our Nation's most pressing challenges, and our Centers of Excellence deliver technology and strategic management domain authority. These Centers connect our staff to better serve our clients, focus on the needs of federal organizations and ensure the right capabilities, people, tools and expertise are applied to our work. This enables us to offer every client the best solutions to fit their agency's unique needs and challenges.

Working with Us

Government agencies can access Noblis through a variety of contracting mechanisms. We have several IDIQ contracts in place and available to civilian and DoD agencies. We are also a GSA Schedule holder. For a full list of vehicles, visit noblis.org/contracting.

ⁱ [2020 Tied for Warmest Year on Record, NASA Analysis Shows](https://www.nasa.gov/press/201801/20180118-nasa-factsheet-2018-warmest-year-on-record.html)

ⁱⁱ <https://nca2018.globalchange.gov>

ⁱⁱⁱ <https://www.ncdc.noaa.gov/billions/>