

# Addressing Administration and USGS Priorities in the Chesapeake



The Biden Administration is launching environmental priorities that include **a) addressing the climate crisis, b) conserving lands and waters (America the Beautiful), c) expanding equality, and d) restoring scientific integrity.** The Administration has proposed accelerating national progress through local implementation on these environmental priorities. Coincidentally, USGS is developing a transformative national science plan to meet these priorities. The Administration’s vision can take advantage of ongoing USGS place-based studies (and their close relationship with local stakeholders), to achieve many of these environmental priorities. USGS can develop both a national approach as well as make significant rapid advances in several locations like Chesapeake Bay and other place-based study locations. In these locations, integrated USGS science can be accelerated to a) inform stakeholder decisions for restoration and protection of fish and wildlife, b) drive conservation of critical lands, and c) provide benefits to people, including underserved communities. **Critical advantages for working in the Chesapeake, in collaboration with national efforts, include:**

- 1. ALIGNMENT** The Administration’s environmental priorities directly align with the priorities of both the Chesapeake Bay Program (CBP) and the associated Department of Interior (DOI) Chesapeake collaboration efforts (see Figure 1).
- 2. INTEGRATION AND SCALE** The USGS Mission Areas and Programs are striving to meet Administration priorities, which will involve a) working across multiple Mission Areas to develop more integrated tools and approaches, and b) working across multiple scales to concurrently inform local, regional, and national efforts.
- 3. SCIENCE TO INFORM LOCALLY LED IMPLEMENTATION** The USGS Chesapeake science efforts, and other place-based studies, provide opportunities for quick success interacting with well-organized stakeholder groups that need and will apply USGS science to inform locally led implementation to achieve Administration priorities.

	America the Beautiful 	Climate Change 	Environmental Justice and Diversity 
Existing Chesapeake Bay Program (CBP) Goals	<u>Protection:</u> Healthy Watersheds, Land Protection <u>Restoration:</u> Fisheries, Habitat, Water Quality, Toxic Contaminants	Land Protection and Healthy Watersheds, Fisheries, Habitat, Water Quality, Toxic Contaminants	Goals to benefit all people: Access, Stewardship, Education
Enhanced CBP Priorities	Conserving 30% of vital lands by 2030 (in development)	New Chesapeake Climate Directive (signed 2021).	New Directive on Diversity, Equity, Inclusion, and Justice (signed 2021).
Chesapeake Opportunities for DOI (USGS, USFWS, NPS)	Chesapeake Conservation Partnership: Achieving 30 Percent Conservation by 2030	Making fish, wildlife, and their habitats more resilient to climate change	Advancing Whole-of-Government Equity Agenda
Other Federal Partners	Environmental Protection Agency, United States Department of Agriculture, National Oceanic and Atmospheric Administration, & Department Of Defense		
<b>Restoring trust in government through scientific integrity underpins entire CBP restoration effort</b> 			

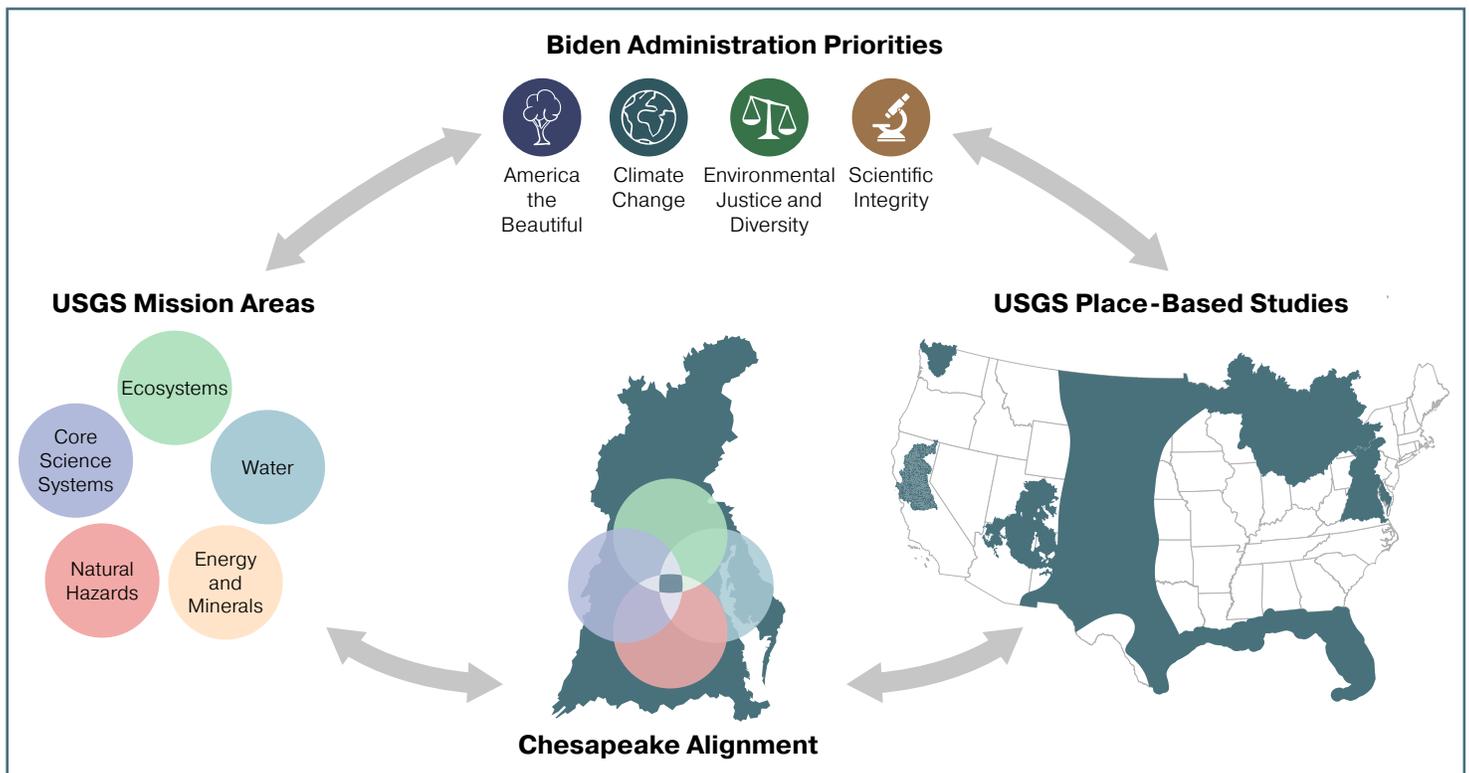
**Figure 1:** Alignment between the new Administration priorities and the Chesapeake priorities. Also included are the specific collaborations with other DOI agencies such as the US Fish and Wildlife Service (USFWS) and National Park Service (NPS), as well as other federal partners.

## ALIGNMENT

The Biden Administration’s environmental priorities for America the Beautiful, addressing the climate crisis, and expanding environmental justice directly align with the existing priorities of both the CBP and the associated DOI Chesapeake collaboration efforts (see Figure 1). This direct alignment provides an immense opportunity to leverage ongoing scientific and management investments to accelerate progress and generate immediate success stories for these Administration priorities, while continuing to partner with DOI agencies (USFWS, NPS) and many other federal partners.

## INTEGRATION AND SCALE

USGS Mission Areas are working to develop integrated efforts that harness the full range of USGS science capabilities that can be applied to inform both national decisions and more detailed regional and local implementation at management-relevant scales (Figure 2). USGS can develop more integrated tools and approaches that can be applied at multiple scales including nationally consistent products that inform coast-to-coast considerations and can enhance the tools (often with higher resolution data) for more regional and locally led decision making. Existing place-based studies are the ideal locations to meet these needs.

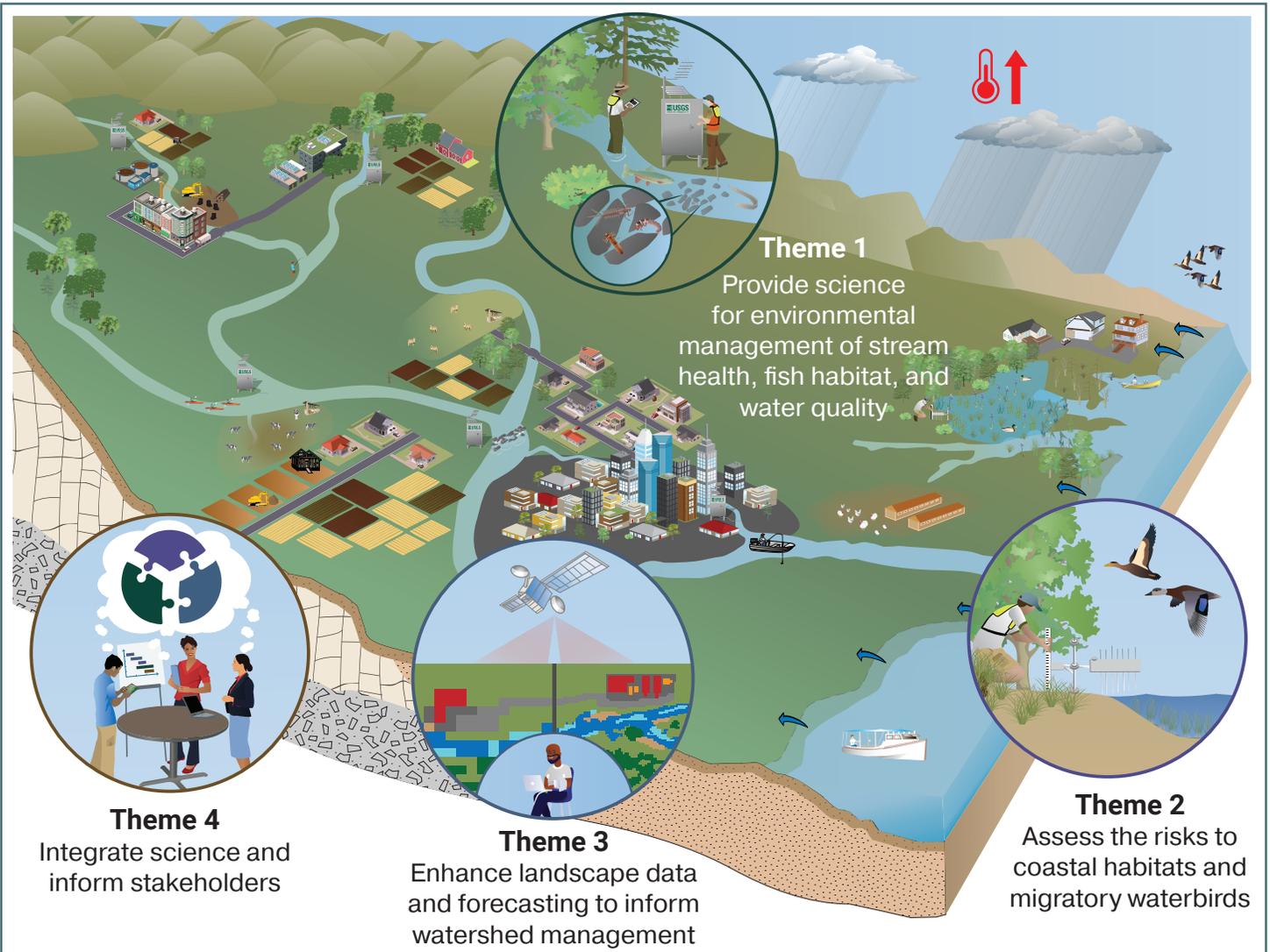


**Figure 2:** The USGS can develop an integrated approach to address the environmental priorities of the Biden Administration by leveraging Priority Ecosystem Science (PES) and other place-based studies that simultaneously support both national progress and locally led implementation. USGS place-based studies included in the map above: Chesapeake Bay, Everglades, Gulf of Mexico, Great Lakes, Platte River (and midcontinent flyway), desert southwest, Puget Sound, and San Francisco Bay.

The Chesapeake partnership is facing new issues including effects of a changing climate and increased natural resource needs of a growing population, while working to achieve existing restoration and conservation goals. The partnership relies on integrated USGS science to help target management efforts, document effects of management actions, and forecast future conditions to inform complex decision making. Similar information is needed for other places across the Nation, and these efforts would benefit from having common tools and approaches that can be applied at multiple scales.

## SCIENCE TO INFORM LOCALLY LED IMPLEMENTATION

The USGS Chesapeake science efforts (and similar place-based studies), provide places where well organized stakeholders apply integrated USGS science to inform locally led implementation, while simultaneously contributing to national and regional efforts to achieve Administration priorities. USGS Chesapeake studies already work across multiple Mission Areas to inform federal and state stakeholders who spend approximately \$1.2 billion per year to conserve and restore the Chesapeake watershed. To rapidly advance the Administration's priorities, USGS priorities, and Chesapeake Bay Program goals, the USGS can enhance and accelerate efforts under the newly implemented USGS Chesapeake Science Strategy ([USGS Chesapeake Science Strategy 2021-2025](#); Figure 3).



**Figure 3:** Conceptual diagram of the Chesapeake watershed, depicting the USGS science themes, as well as major environmental drivers, like climate change, land-use activities, and urban development. USGS science is being applied by stakeholders to inform conservation and restoration practices to improve conditions for fish, wildlife, and the 18-million people who live in the watershed.

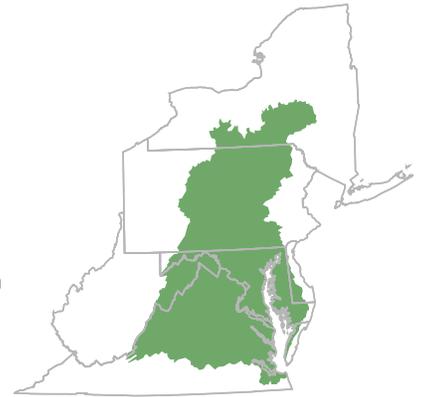


The science themes that guide USGS Chesapeake studies have been developed collaboratively with the Chesapeake stakeholder community to address critical stakeholder needs for management-relevant applied science that informs locally led implementation.



## SCIENCE TO INFORM LOCALLY LED IMPLEMENTATION

Transformative opportunities exist for innovative projects that concurrently meet national USGS priorities and local Chesapeake needs. These opportunities align directly with Administration priorities as well as Chesapeake stakeholder needs, and could be considered in multiple places to develop scientific approaches and tools that can be used nationally and enhanced locally. These transformative opportunities include:



**Informing restoration and conservation of fish in the face of a changing climate.** Currently there are separate inland and coastal fish habitat assessments developed nationally and regionally. To transform these efforts, there is a need to develop common approaches for integrated watershed-estuary fish habitat assessments that can be applied at multiple scales (nationally, regionally, locally) to inform federal and state management, including the USFWS and natural resource agencies in six states.



**Improving the conservation of coastal wetlands and waterfowl habitats in the face of a changing climate.** Coastal wetlands, which are essential habitats for waterfowl, are at risk from sea-level rise, development, and climate change. Science and tools are needed to better identify the most vulnerable wetlands and inform their restoration and protection in the face of climate change. Primary stakeholders include NPS, USFWS, and state governments.

**Assessing current landscape characteristics and forecasting climate and land change to inform conservation decisions.** An existing land-change model could be coupled with climate change modeling to forecast potential changes in critical habitats and lands to inform climate adaptation and conservation decisions by USFWS (Chesapeake WILD: Watershed Investments for Landscape Defense) and other partners.



**Assessing the ecosystem and aquatic system changes in response to conservation and restoration efforts.** As billions of dollars are spent on locally led implementation, stakeholders are asking how these systems are responding to conservation and restoration efforts. The USGS can design and implement integrated monitoring networks to characterize changes in local, regional and national conditions over time. Results would be used by all stakeholders to adaptively implement their restoration and conservation efforts.

**Quantifying ecosystem services to inform complex and multi-dimensional conservation and restoration decisions.** Science is needed to inform decisions for economic progress and environmental sustainability. The effort would focus on better quantifying the services provided by fish and wildlife (and their habitats) to inform multi-faceted decisions on conservation, restoration, development, and even climate resiliency.



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