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SREFOUNDATION: DOES PLACE-BASED CONSERVATION IN AMERICA NEED TO START OVER?
REBECCA CONARD, ROLF DIAMANT, DAVID HARMON & JOHN REYNOLDS, THEME EDITORS



Beyond Whiplash: Advancing Durable, Place-Based Ocean Conservation in the United States

LAUREN WENZEL

Even before the current Trump administration launched a full-scale assault on America's public lands and waters, protecting our ocean places faced a host of challenges. These include the invisibility of ocean life to much of the public; fragmented governance among many federal, state, Tribal, and local government agencies; legal authorities often lacking a strong conservation purpose; agency budgets lagging far behind those of land-based programs; lack of sufficient spatial data on marine biodiversity; and a wide range of climate and non-climate threats to species, habitats, and the communities that depend on them.

These challenges have been exacerbated by this administration's widespread cutting of civil service jobs and protections; targeting of public engagement efforts derided as "DEI" (diversity, equity and inclusion); canceling of government grants and contracts with partner scientific and non-profit institutions for a wide range of marine management, science, and education activities; and disregard for science-based decision-making, as evidenced by the erasure of climate change information from government websites.

In the wake of this widespread disruption, advocates for ocean conservation have an opportunity to step back from current efforts and review them with a critical eye. Our need for effective ocean conservation has never been more urgent: the oceans' ability to buffer climate impacts, sustain economically and culturally important species, and provide a host of other ecosystem services is increasingly threatened. This paper identifies actions in support of a common vision to elevate and advance effective ocean conservation while working to address the longer-term challenges of fragmented governance, underfunding, and building public trust.

CONTEXT

The US exclusive economic zone—where the US has sovereign rights to explore, exploit, conserve, and manage natural resources—extends out to 200 nautical miles and is larger than the nation's land area. This vast area, over 11,351,000 km² (4,383,000 sq mi), is a vital ecological, economic, and strategic resource, sustaining coastal communities and economies, and providing meaningful outdoor experiences for millions of visitors.¹ Yet despite strong public support for ocean conservation,² marine and coastal areas often remain an afterthought in the national conservation dialogue based on the longer and more extensive history of land-based conservation as well as access barriers to coastal and marine areas.

Marine protected areas (MPAs) are key tools for conserving and restoring marine life and the benefits

it provides to coastal communities and economies. Decades of research have allowed us to identify key design features for MPA performance (no extraction, well-enforced, well-established, larger than 100 km², and isolated)³ and criteria for effective MPA networks (inclusion of ecologically and biologically significant areas, representativeness, connectivity, replication, and sufficient size and level of protection).⁴ Moreover, the Global Conservation Framework, adopted by parties to the Convention on Biological Diversity (CBD) in 2022, recognizes the critical importance not only of protected areas but also of "conserved" areas that may not have biodiversity conservation as a primary goal, but contribute to its outcomes. Taken together, these findings can support a framework for US place-based ocean protection that can be adapted to meet regional and national needs.

GETTING PAST THE WHIPLASH EFFECT

One key global driver for MPAs is "30x30"—the goal established under the Global Conservation Framework to conserve, by 2030, 30% of the planet's lands and waters for nature and its benefits to people. While the US is not a signatory to the CBD, the Biden administration committed to its own version of 30x30 in the US in 2021 with Executive Order 14008, "Tackling the Climate Crisis at Home and Abroad." This order was immediately rescinded by President Trump upon taking office in January 2025, an example of the "whiplash" effect affecting national climate and conservation planning efforts and the divisiveness of climate change within US politics, despite the overwhelming scientific evidence documenting it.

US MPAs include areas managed through federal, state, Tribal/Indigenous, and local authorities for long-term conservation. Federal and partnership programs include marine national monuments, marine sanctuaries, national estuarine research reserves, and the marine components of national parks, national wildlife refuges, and national conservation lands. Yet US MPAs do not represent the

nation's diverse habitats—approximately 96% of the ocean area under protection is in national marine monuments in remote Pacific Islands established by presidential orders under the Antiquities Act.⁵ And, because of lingering legal uncertainties regarding the limits of presidential power under the act,⁶ these monuments are particularly vulnerable to the whiplash effect.

This was demonstrated early in the second Trump administration. In April 2025, President Trump eliminated protection from commercial fishing from the Pacific Remote Islands Marine National Monument in the Central Pacific.⁷ The Northeast Canyons and Seamounts (NECS) Marine National Monument, the only monument in the Atlantic, has experienced even more severe management pendulum swings. NECS was proclaimed in 2016 by President Obama, who banned commercial fishing to protect fragile deep-coral habitats. The monument was opened to commercial fishing by President Trump in 2020; the fishing ban re-instated by President Biden in 2021; and commercial fishing re-opened by President Trump in 2026. This policy inconsistency undercuts stable management and engagement with stakeholders about long-term solutions.

The legal dispute over whether a president can undo a previously established monument's protection jeopardizes the future of marine national monuments as a conservation tool at a time when all tools are critically needed. If monuments are perceived as an insecure legal mechanism, MPA advocates will increasingly need to look at other options, including national marine sanctuaries.

National marine sanctuaries (NMSs) are multiple-use protected areas created for conservation of natural and cultural resources and managed by the National Oceanic and Atmospheric Administration (NOAA). Unlike marine national monuments derived from the Antiquities Act, NMSs are authorized under the National Marine Sanctuaries Act (NMSA), which has less legal ambiguity with respect to presidential power. Some, like Channel Islands NMS in southern California, have broad ecosystem-level protections, while others, like the Monitor NMS (off the Virginia coast), have narrower protections focused on conserving historic shipwrecks. Fishing regulations in sanctuaries are gen-

erally established by the National Marine Fisheries Service within NOAA, and commercial and recreational fishing are allowed in nearly all sanctuaries. Some sanctuaries prohibit fishing in specified zones using their own regulations. In practice, sanctuaries have a mixed and complex record of conservation success.⁸ Condition Reports produced every decade for individual sanctuaries summarize conditions and trends for key resources, but don't make the link to how these conditions are changing as a result of management actions.⁹ However, the current shortcomings of NMSs do not diminish their potential as a more durable form of marine conservation designation.

REALIZING THE POTENTIAL OF DIVERSE MARINE PROTECTED AREAS

The scientific guidance cited above is a starting point for an effective US ocean conservation network. Moreover, research by Gill et al. (2017) found that adequate staffing and funding for MPAs were the strongest predictors of conservation outcomes.¹⁰ The authors also found that multiple-use MPAs performed poorly when there is high pressure on resources, but could deliver similar outcomes to no-take MPAs when adequately staffed and appropriately regulated.¹¹ In areas where no-take MPAs are not feasible or ethical, well-designed multiple-use MPAs can be an effective and equitable solution. The following recommendations, based on lessons learned by MPA programs in the US and other countries, highlight ways to strengthen MPAs in the US.

Connect protected sites across programs into effective and representative conservation networks

While 26% of US waters are currently within an MPA, coverage is not representative of diverse marine habitats. Several regions have very low coverage of MPAs, including Alaska (less than 1%) and the Gulf of Mexico/Caribbean (2%).¹² Moreover, only 3% of US waters are covered by fully protected areas.¹³ A national system of connected regional networks that include existing and new MPAs focused on areas of high biodiversity, as well as the recognition of conserved areas, would provide a more coherent and effective approach.

Be accountable in reporting on MPA effectiveness

Few US MPA programs systematically demonstrate how their management is leading to conservation outcomes.



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Among them is the California state network of MPAs, which was designed to be ecologically connected and representative and to offer a high level of protection in order to safeguard and restore marine ecosystems. California's network recently conducted a decadal review to assess progress and identify potential needs, finding that species and habitats were responding to MPA management, particularly in areas of high human pressure.¹⁴ US MPA programs need to provide resources to monitor and assess conditions and trends, commit to using an adaptive management framework based on realistic and measurable objectives, and adjust management approaches in light of findings and changing conditions.

Explicitly address climate change and adaptively manage for climate impacts

Climate change is affecting marine ecosystems globally, and its drivers—human emissions of greenhouse gases—are largely outside the control of MPA managers. However, managers can increase ecosystem resilience by understanding climate impacts, potential future scenarios, and vulnerabilities of species and habitats. When establishing or updating management plans, managers should consider MPA goals, boundaries, and regulations that address not only current but also future conditions and challenges. Tools like the RAD (Resist, Accept, Direct) Framework can help MPA managers consciously and transparently consider management alternatives and trade-offs.¹⁵ Equally importantly, the ocean is a critical buffer in mitigating climate impacts by absorbing excess heat and carbon dioxide, but is being overwhelmed by these stressors, as evidenced by the growing occurrence of ocean heat waves and acidification. However, protecting and restoring marine ecosystems can help the ocean continue to mitigate climate change.

Step up habitat restoration efforts

Habitat restoration adds to the ocean's capacity to provide natural solutions to climate change and other challenges. Restoring habitats such as coastal wetlands, mangroves, and seagrasses adds biodiversity value while

also sequestering and storing carbon. These habitats—along with others such as coral and oyster reefs—also protect vulnerable shorelines and nearby communities from the growing intensity of storms due to warmer oceans. Protected areas are ideal places for habitat restoration because they already have long-term legal protection and public support. Major investments in MPAs for coral restoration in the Florida Keys and kelp restoration in California have relied on partnerships with research institutions and fishers to identify restoration areas and implement activities. Habitat restoration often garners support from across the political spectrum, as fishers and coastal communities see direct benefits.

Establish new authorities and processes to facilitate

Tribal co-management and co-stewardship

Tribes and other Indigenous Peoples have lived in and cared for their lands and waters for many generations and have knowledge systems that can inform management of special places. While the Department of the Interior has authority to establish co-management agreements for national parks and self-governance annual funding agreements with eligible Tribes,¹⁶ NOAA lacks similar authority. Co-management allows federal agencies to share or delegate management responsibility to Tribes, helping facilitate the application of Indigenous Knowledge and build cultural resilience and food security, alongside biodiversity conservation.

Engage with coastal communities

MPAs are needed to provide spaces for nature in the crowded coastal zone, and for larvae and juveniles to disperse from one protected area to another. These areas can also provide much valued spaces for recreation. But MPA programs must engage closely with local communities if they are to succeed in providing meaningful protection. In addition to California's state-wide MPA network, Oregon, Washington, and Hawaii have worked with local communities to develop MPA systems that include highly protected areas.



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Rebuild international partnerships

The ocean is an interconnected system, with species migrating across the globe, and larvae and other genetic materials distributed widely through ocean currents. Effective conservation of shared species and habitats in the US depends on the conservation efforts of other nations, just as conservation overseas depends on US efforts. Yet the Trump administration has withdrawn the US from dozens of international treaties and programs focused on climate and conservation. As a result, staff are barred from scientific, technical, and policy discussions with their counterparts in other countries, sweeping away decades of US leadership. The US needs to re-engage and rebuild these relationships to address increasing environmental threats to our shared ocean.

Reauthorize the National Marine Sanctuaries Act

The NMSA has not been updated since 2000, and annual funding is guided by legal language that is now nearly 30 years old. Legislative changes are needed to give NOAA the tools to effectively manage this MPA system, particularly in light of political and legal threats to national marine monuments. These changes include: strengthening the priority, purpose, and scope of biodiversity conservation over all other uses in sanctuaries; requiring fisheries management decisions to prioritize conserving the integrity of protected ecosystems and resources over fisheries objectives in sanctuaries; requiring monitoring and evaluation to assess and adapt management; requiring the consideration of climate mitigation, adaptation, and resilience in management; and (as discussed above) authorizing Tribal co-management.

Build capacity for effective MPA management

Sufficient capacity is the primary factor in an MPA's ability to deliver conservation results.¹⁷ NOAA's Office of National Marine Sanctuaries lost approximately 20% of its staff through firings, buyouts, and early retirements in 2025, and losses were similar within the National Park Service and US Fish and Wildlife Service. Based on statements by Trump administration leadership,¹⁸ the reductions in force and threats to federal workers are part of a systematic aim to reduce agencies' capacity to perform their public service duties.

Moreover, capacity had been eroded in some areas well before 2025. For example, the National Marine Protected Areas Center, which was established by executive order in 2000 to be the “connective tissue” across MPA programs, has been weakened over the years through budget cuts, staff losses, and reorganization. Agencies will need to work with Congress to rebuild capacity, using this opportunity to address long-term issues that have hindered effectiveness.

Rebuild trust with the public

With the Trump administration's removal of scientific information from public websites, applying a political lens to censor public outreach material at national parks, and the disregard for requirements in many existing environmental laws (e.g., the destruction of the White House East Wing), there is a critical need to rebuild trust with the public. Rebuilding public trust in ocean conservation will require more than restoring programs—it will demand a fundamental shift toward transparency, accountability, and shared governance. Across the federal government, Congress and agencies must establish robust systems to protect scientific integrity and prevent political interference with the conduct and communication of federally supported science. Independent scientific oversight, stable policy frameworks, and honest reporting on both successes and failures are essential to restoring credibility. Moreover, agencies will need to empower coastal and Tribal/Indigenous communities as co-creators, and demonstrate tangible local benefits from conservation efforts. Ultimately, trust will be rebuilt not through rhetoric, but through consistent, inclusive, and evidence-based actions that visibly improve both ecosystem health and community well-being.

Given the ocean's critical importance to human well-being, the US urgently needs a stronger, more resilient system of MPAs. Getting past the whiplash effect requires public support that can be built through transparency, inclusion, and demonstrating results. The recommendations above offer guidance for a “big tent” approach to strengthen existing MPA programs with diverse governance and scope and weave them into an effective national system that can evolve to address our ocean conservation challenges.

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