

Recommendations for Integrated Management Using a Cultural Landscape Approach in the National MPA System

**Marine Protected Areas Federal Advisory Committee
November 2011**

Executive Summary

In April 2010, the Department of Commerce (DOC) and the Department of the Interior (DOI) charged the Marine Protected Areas Federal Advisory Committee (MPA FAC) with providing guidance on the development of the cultural heritage track of the National System of Marine Protected Areas (national system). In anticipation of this charge, the MPA FAC had augmented its capacities by establishing the Cultural Heritage Resources Working Group (CHRWG) in September 2009, to provide expert advice on improving the comprehensive conservation and management of cultural heritage resources within the national system. The 21-member working group includes six MPA FAC members and brings together people who have an unusually diverse array of cultural and professional backgrounds, and who represent many different interests across the national community.

The conservation of the nation's cultural heritage is one of the three goals of the National System of Marine Protected Areas (MPAs). The national system will strengthen the protection of cultural heritage resources by enhancing coordination among MPAs and by conducting gap analyses to identify areas that contribute to the system's priority conservation objectives that would benefit from additional protection. These objectives include both material cultural and historic resources such as shipwrecks and resources as well as sites important to the cultural practices of tribal and indigenous peoples.

Specifically, the MPA FAC was asked:

- What are the Committee's recommendations of alternative visions of the cultural heritage track of the National System of MPAs? What could it emphasize and include?
- How can NOAA and DOI best support the participation of cultural heritage MPAs within the national system (e.g. strengthening management planning capacity, shared outreach efforts, developing shipwreck trails)?
- What factors should NOAA and DOI consider in developing the gap analyses for cultural heritage resources? Is a regional approach appropriate? What type of conceptual framework should be developed to guide the cultural heritage gap analysis?

The CHRWG developed the following cultural heritage vision statement, which was adopted by the MPA FAC at its April 2010 meeting in Charleston, SC:

MPA Cultural Heritage Vision Statement

“Achieving and maintaining healthy coastal and marine ecosystems requires a fundamental understanding of the relationships between people and the environment. Cultural heritage, which belongs to all people, emphasizes these connections, whether that heritage takes the material form of, for example, maritime resources (such as shipwrecks), natural resources (such as marine species and habitats), or sacred places. Through the national MPA system, cultural relationships among people and historic, natural, and place-based heritage resources are preserved and perpetuated in ways that recognize and share multiple cultural voices and knowledge systems for the benefit of all.”

The analysis and recommendations that follow build directly upon this vision statement. They address existing categories and procedures associated with cultural heritage and MPAs, and describe approaches designed to improve the comprehensive conservation and integrated management of natural, cultural, and living marine resources.

The guiding principles and the integrated management approach proposed here for cultural heritage resources will help address the two important cultural heritage challenges:

- Attracting existing MPAs that have cultural heritage resources which meet national system eligibility criteria to join the national system; and
- Reducing uncertainties in recognizing cultural heritage resources within existing and potential MPAs.

As integrated and adaptive management is increasingly practiced, the Cultural Landscape Approach (CLA), as described below, will help MPA managers nationwide to identify and adopt policies and practices that manage cultural and natural resources at the ecosystem and landscape levels.

The protection of cultural heritage resources in marine areas is often separated from that of natural resources. In practice, this divide is often administrative in origin. The effective ecosystem-based management called for in the National Ocean Policy¹ and advocated by countless scientists and natural resource management professionals recognizes that the connections between living things and the physical environment are multifaceted and often inseparable. Managing places using an ecosystem-based approach requires the simultaneous understanding of cultural and natural factors and resources. Indeed, as many indigenous cultures have known for millennia, and as the scientific community is increasingly recognizing, humans are an important part of the ecosystem, and the human dimensions of the environment must be considered.

In contrast to previous cultural resource management paradigms, which approached resources individually for study and preservation, CLA uses cultural landscapes as an analytical framework to understand places and their associated resources. Analogous and complementary to ecosystem-based management, CLA examines the relationships among living and non-living

¹ Executive Order 13547, 75 FR 43023 (July 22, 2010).

resources, and their environment. An MPA may involve multiple ecosystems and resources, both cultural and natural, which span the land/sea boundary. A cultural landscape may extend far beyond the boundaries of an individual MPA, and may help identify ecological and cultural connections both within and between MPAs. The approach emphasizes cultural relationships to the environment, and highlights connections between human behavior and the condition of marine ecosystems over time.

Adoption of the CLA by the national system would represent an important step toward the meaningful integration of human culture and the natural environment in managing MPAs. As charged in Executive Order 13158,² the national system, with its equal focus on natural heritage, cultural heritage, and living renewable resources has a unique potential to protect and conserve our natural and human environment in ways that simultaneously recognize the need to use, preserve, and respect our special marine places. The CHRWG recommends the following actions in order to move the national system toward fulfilling its charge.

A. [Recommended Technical Changes to MPA Framework Document \(see page 7\)](#)

The CHRWG recommended, and the MPA FAC unanimously adopted, a number of technical changes to the MPA Framework at its April 2010 and November 2010 meetings. These are included as Appendix A. These new definitions and criteria will allow the national system to recognize and accommodate the diversity of cultural resources, their associated stakeholders, and the interests of all citizens whom the national system can and should benefit.

1. We recommend that the Secretaries of the Departments of Commerce and the Interior adopt these changes.

B. [Cultural Heritage Governance Recommendations \(see page 14\)](#)

We recommend that the national system partners:

2. Advance and, where practical, adopt integrated cultural heritage governance practices that advance the National Ocean Policy and embrace ecosystem-based management principles that recognize and protect maritime cultural heritage;
3. Recognize that diverse cultural heritage management approaches exist at the local, state, tribal, and national levels, and accommodate flexible practices that best align local knowledge and circumstances with the principles embodied in the National Ocean Policy; and
4. Explicitly recognize the place-based authority and rights of tribal and indigenous peoples in establishing and managing MPAs.

² Executive Order 13158, 65 FR 34909 (May 26, 2000).

C. [MPA Inventory and National System Recommendations \(see page 17\)](#)

We recommend that the National Marine Protected Areas Center (MPA Center), in concert with national system partners:

5. Reanalyze the MPA Inventory using the expanded cultural heritage definitions to identify cultural heritage resources both inside and adjacent to existing MPAs and develop a more comprehensive census of heritage resources associated with MPAs;
6. Expand analysis of existing national system MPAs to identify a greater diversity of cultural and natural resources that would benefit from additional protection and management;
7. Target outreach and assistance to MPA managers, particularly in tribes and indigenous groups, to encourage further inclusion of existing and potential cultural heritage MPAs in the national system;
8. Provide, improve, and coordinate MPA manager training programs and initiatives regarding cultural heritage resources, with additional attention given to tribal and indigenous knowledge and authorities; and
9. Expand educational and outreach ties to museums, schools, and cultural heritage programs.

In order to fulfill the intent of the EO, we further recommend that:

10. DOC and DOI increase capacity for the updated inventory and evaluation of coastal and marine cultural resources. Specifically, resources should be provided to the MPA Center for cultural heritage staffing and programs necessary to implement these recommendations.

D. [Cultural Landscape Approach Recommendations \(see page 26\)](#)

We recommend that national system partners:

11. Adopt a cultural landscape approach as a means to protect cultural heritage resources and advance ecosystem-based management of MPAs;
12. Develop best practices to bring together all available knowledge of cultural heritage resources, including the incorporation of tribal and indigenous sources; and
13. Apply the expanded definition of cultural heritage resources embodied in CLA, which includes the National Register of Historic Places criteria, to manage MPAs.

The Cultural Heritage Resources Working Group was tasked with making recommendations to improve the comprehensive conservation of cultural heritage resources within the national system. The evaluation revealed what tribal and indigenous peoples from many places have known for generations: the human family is an integral part of and has special responsibilities to many ecosystems. Cultural heritage resources offer records of these relationships and carry with them lessons for the future based on the wisdom and mistakes of the past. We recommend the Cultural Landscape Approach as a management framework because it offers the best available means to remember and learn from our past, and to understand human and natural influences on marine places and their ecosystems over time and into the future. This holistic approach integrates the complexities and power of contemporary science with historical, archaeological, and cultural knowledge and the human values of love of place. Adopting a Cultural Landscape Approach strengthens our will and enhances our capacities to steward wisely the world we inhabit.

I. Background to the National System of MPAs

On May 26, 2000, Executive Order 13158 called for a new initiative “to protect the significant *natural and cultural* resources within the marine environment for the benefit of present and future generations.”³ The order directed the establishment of a comprehensive National System of Marine Protected Areas (national system). The stated purposes include:

- A. Strengthen the management, protection, and conservation of existing marine protected areas and establish new or expanded MPAs;
- B. Develop a scientifically based, comprehensive national system of MPAs representing diverse U.S. marine ecosystems, and the Nation’s natural and cultural resources; and,
- C. Avoid causing harm to resources in MPAs through federally conducted or approved, or funded activities.

During the first decade under the Executive Order, the federal government created the MPA Center and established the national system. The staff of the MPA Center and the appointed MPA FAC have produced many studies and tools to support MPAs and their management, developed a comprehensive National MPA Inventory, helped develop regional social science research strategies for a subset of the regions, and in 2008, published the foundational *Framework for the National System of Marine Protected Areas of the United States of America*.⁴

The national system is designed to advance the conservation and comprehensive management of three classes of marine resources: natural heritage, renewable living resources and their habitats, and cultural heritage. The first nine years under the Executive Order brought rapid progress to the national system in the areas of natural heritage and renewable living resources. The MPA FAC and MPA Center have focused attention on the marine and ecological sciences as well as on understanding fisheries. However, addressing cultural heritage values through the national system has languished. To redress the imbalance, the MPA FAC augmented its capacities by establishing the Cultural Heritage Resources Working Group (CHRWG).

II. A Vision for Cultural Heritage in the National System of MPAs

As the second decade under the Executive Order approached, the MPA FAC turned its attention to the national system’s third charge – the conservation and comprehensive management of cultural heritage. Cultural heritage is a rapidly evolving area of conservation — one that crosses many disciplines, user groups, and human cultures. Recognizing this complexity and the limited expertise in cultural heritage among its members, the MPA FAC augmented its capacities by voting to establish the Cultural Heritage Resources Working Group (CHRWG) in September 2009.

³ Executive Order 13158, 65 FR 34909 (May 26, 2000).

⁴ *Framework for the National System of Marine Protected Areas of the United States of America* (2008).

The CHRWG was tasked with making recommendations for actions and practices to improve the comprehensive conservation and management of cultural heritage resources within the national system. The 21-member working group includes six MPA FAC members and brings together people who have an unusually diverse array of cultural and professional backgrounds, and who represent many different interests across the national community. The group's broad composition embodies the national system design principle of representativeness and its implementation principles of cooperation and coordination, balanced stakeholder involvement, and respect for local and indigenous values.

The group's diversity, depth of experiences, and commitment to respectful dialogue among its members led to a series of unprecedented critical discussions of cultural heritage and resources that pushed the boundaries far beyond the perspectives that have until recently typified marine cultural heritage management in the United States. The deliberate and often challenging exchanges of views resulted in a high level of consensus around common values. These values are expressed in the cultural heritage vision statement developed by the group and adopted by the MPA FAC at its April 2010 meeting in Charleston, SC.

MPA Cultural Heritage Vision Statement

"Achieving and maintaining healthy coastal and marine ecosystems requires a fundamental understanding of the relationships between people and the environment. Cultural heritage, which belongs to all people, emphasizes these connections, whether that heritage takes the material form of, for example, maritime resources (such as shipwrecks), natural resources (such as marine species and habitats), or sacred places. Through the national MPA system, cultural relationships among people and historic, natural, and place-based heritage resources are preserved and perpetuated in ways that recognize and share multiple cultural voices and knowledge systems for the benefit of all."

The analysis and recommendations that follow build directly upon this vision statement. They address existing categories and procedures associated with cultural heritage and MPAs, and describe approaches designed to improve the comprehensive conservation and integrated management of natural, cultural, and living marine resources.

At the November 2010 meeting in Santa Barbara, California, the MPA FAC adopted new definitions for *cultural heritage*, *marine cultural resources*, *tribe*, *indigenous peoples*, and *cultural landscape*, as well as a modification of the *cultural heritage criterion* for national system eligibility, expanding it beyond National Register of Historic Places standards.⁵ These changes are based on the inclusive vision statement and recommendations of the CHRWG, many of which stem from discussions held during a meeting among representatives of tribal and indigenous groups, a number of MPA FAC members, the MPA Center, and other NOAA

⁵ FAC recommendations are transmitted to the Secretaries of Commerce and the Interior following each FAC meeting. November 2010 recommendations included as Appendix A. Subsequent edits to the *Framework for the National System of Marine Protected Areas of the United States of America* are made by the MPA Center. A revised version of the *Framework* is forthcoming.

staff. The new definitions and criteria will allow the national system partners to recognize and accommodate the diversity of cultural resources, their associated stakeholders, and the interests of all citizens whom the national system can and should benefit.

1. We recommend that the Secretaries of the Departments of Commerce and the Interior adopt these changes.

III. Understanding Cultural Heritage Governance

On July 19, 2010, President Barack Obama signed Executive Order 13547, Stewardship of the Ocean, Our Coasts, and the Great Lakes,⁶ detailing a national vision for America’s stewardship of and engagement with the Nation’s oceans, coastlines, and the Great Lakes. Executive Order 13547 places cultural heritage within a national policy of ocean, coastal, and Great Lakes stewardship. Sec.2 (a) (vi) of the National Ocean Policy directs agencies to “respect and preserve our Nation’s maritime heritage, including our social, cultural, recreational, and historical values.”⁷ This is entirely appropriate, as the American public has continually upheld federal and state legislative efforts protecting maritime heritage (e.g., Abandoned Shipwreck Act, Sunken Military Craft Act, National Historic Preservation Act, and numerous State laws).

As federal agencies, DOI and NOAA are directed to implement the National Ocean Policy. This represents a significant challenge as cultural heritage governance in the U.S. is hampered by overlapping jurisdictions among federal agencies, and by ambiguous and sometimes conflicting cultural resource policies among authorities at local, state, tribal, and national levels. The result is that many cultural resources remain unrecognized or undervalued by policy makers, managers and law enforcement.

Cultural heritage governance is challenging in terrestrial environments, and coastal and marine areas add additional layers of complexity and logistical challenges. These places often have been the sites of intensive human uses over many centuries or millennia, but sometimes leave little visible evidence of these interactions. Additionally, the nature of the physical environment can make resource assessments very expensive. The mixing of terrestrial and marine legal regimes renders rule making, administration, and enforcement more difficult than in adjacent terrestrial environments. MPAs have the potential to bring new levels of integration and protection to the management of cultural heritage resources in coastal and marine environments. The CHRWG has identified four areas of governance – federal, state, local, and tribal/indigenous – where careful steps outlined below will yield genuine progress toward realizing the goals and values embodied in the MPA Cultural Heritage Vision Statement and the stewardship vision of the National Ocean Policy.

⁶ Executive Order 13547, 75 FR 43023 (July 22, 2010).

⁷ Executive Order 13547, 75 FR 43023 (July 22, 2010).

A. Federal Responsibility for Coastal and Maritime Cultural Heritage

The Antiquities Act of 1906⁸ initiated the modern era of federal responsibilities to protect cultural heritage. The act prohibits the appropriation, destruction, excavation, or injury of “any historic or prehistoric ruin or monument, or any object of antiquity, situated on lands owned or controlled by the Government of the United States without the permission of the Secretary of the Department of the Government having jurisdiction over the lands on which said antiquities are situated.”⁹ The act also provides the President of United States with the authority to establish national monuments in order to protect “historic landmarks, historic and prehistoric structures, and other objects of interest”.¹⁰ From its earliest uses by Theodore Roosevelt, vast areas and countless cultural and natural resources have gained protection as national monuments.

Significantly, the largest national monument, Papahānaumokuākea Marine National Monument (PMNM) encompasses 140,000 square miles of submerged and emergent lands and marine waters over and around them. PMNM management recognizes the intimate linkages between its cultural and natural heritage resources by combining both the practices of modern western science and archaeology with the traditional cultural knowledge, spiritual beliefs and ancient authority of the Native Hawaiian people. It represents an important example of integrated cultural and natural resource MPA management. The Antiquities Act is limited to lands owned or controlled by the United States Government. While it is worth noting that the Antiquities Act does not call for consultation, in some recent cases, public involvement has been extensive. In the marine environment the Act may apply on the outer continental shelf and in federal marine protected areas such as National Parks, National Seashores and National Marine Sanctuaries.¹¹

The National Park Service Organic Act of 1916¹² (*et seq.*, as amended and supplemented) charges the National Park Service to conserve the “historic objects” in parks and provide for their enjoyment so as to leave them unimpaired for future generations. Pursuant to the Organic Act, 36 C.F.R § 2.1 prohibits possessing, destroying, injuring, defacing, removing, digging or disturbing from their natural state the paleontological specimens, cultural or archeological resources in parks. The enabling legislation for individual units of the National Park System may prescribe specific cultural resources or values to be protected.

The National Historic Preservation Act of 1966¹³ (NHPA) requires federal agencies to meaningfully consider the potential effects of federally assisted or permitted projects on properties included in, or eligible for inclusion in, the National Register of Historic Places. Meaningful consideration includes consultation with all concerned parties, not just State or

⁸ Antiquities Act, 16 U.S.C. § 431-433m (2009).

⁹ Antiquities Act, 16 U.S.C. § 433 (2009).

¹⁰ Antiquities Act, 16 U.S.C. § 431 (2009).

¹¹ Zander, Caroline M. and Varmer, Ole (1996). *Contested Waters. Common Ground*, 1 (3/4).

¹² National Park Service Organic Act. 16 U.S.C. § 1 *et seq.* (1916).

¹³ National Historic Preservation Act, 16 U.S.C. § 470 *et seq.* (1966).

Tribal preservation offices.¹⁴ The Section 106 process of the NHPA is triggered by the presence or possibility of potentially eligible, eligible, or listed NRHP properties that may be affected by the proposed project. Section 110 mandates that agencies create preservation programs “for the identification, evaluation, and nomination to the National Register of Historic Places, and protection of historic properties.” Section 110 requires that agencies actively identify potentially eligible properties and consult “with other Federal, State, and local agencies, Indian Tribes, Native Hawaiian organizations carrying out historic preservation planning activities, and with the private sector.”¹⁵

The Archaeological Resources Protection Act of 1979¹⁶ (ARPA) was enacted to address challenges to the vagueness of what an “antiquity” is under the Antiquities Act and to explicitly protect “archaeological resources and sites which are on public lands and Indian lands.”¹⁷ ARPA has many specific requirements involving research permitting and requiring more proactive federal agency management of archaeological resources. The Act makes some violations a felony offense, and imposes substantial penalties for illegal excavation, procurement, or trade of archaeological artifacts from federal and Indian lands. ARPA requires federal land managers to create programs to promote the protection of archaeological resources through public education and outreach.¹⁸ The definition of public lands under ARPA explicitly excludes the Outer Continental Shelf.

The National Marine Sanctuaries Act¹⁹ (NMSA) offers strong legal protections, within the confines of each sanctuary’s designation document, to cultural resources within the boundaries of the thirteen established Sanctuaries and enables NOAA to regulate activities, issue permits, and assess civil penalties. The NMSA has withstood every legal challenge and led to the largest civil penalties ever assessed for damaging underwater or terrestrial cultural resources. In all respects except in the geographical limits of its application, NMSA offers model legislation for supporting the comprehensive and integrated management and protection of cultural and natural resources.

The Sunken Military Craft Act²⁰ (SMCA) applies to sunken military craft belonging to United States wherever located. In addition, craft owned by foreign governments are protected in U.S. waters up to 24 nautical miles from shore. The SMCA protects sunken military craft by prohibiting certain activities without permission from the federal government. It also prohibits the application of the common law of finds and maritime law of salvage to military craft.

¹⁴ King, Thomas (2003). *Cultural Resource Laws and Practices: An introductory Guide*. Walnut Creek, CA: AltaMira Press.

¹⁵ National Historic Preservation Act, 16 U.S.C. § 470h-2(a) (1966).

¹⁶ Archaeological Resources Protection Act, 16 U.S.C. § 470 *et seq.* (1979).

¹⁷ Archaeological Resources Protection Act, 16 U.S.C. § 470aa. (1979).

¹⁸ McManamon, Francis P. (2000). The Archaeological Resources Protection Act of 1979 (ARPA). Reproduced from Linda Ellis (Ed.), *Archaeological Method and Theory: An Encyclopedia*. New York: Garland Publishing. Retrieved September 1, 2001 from: <http://www.nps.gov/archeology/tools/Laws/arpa.htm>

¹⁹ National Marine Sanctuaries Act, 16 U.S.C. § 1431-2441 (1972). Originally Title III of the Marine, Protection Research Sanctuaries Act of 1972.

²⁰ Sunken Military Craft Act, 10 U.S.C § 113 (2004).

The Abandoned Shipwreck Act of 1987²¹ (ASA) protects a single class of cultural heritage resource – abandoned shipwrecks on the submerged lands of the several states. While some shipwrecks are associated with cargoes of precious metals, jewels, and artifacts, these represent a minute fraction of the total resources. All shipwrecks have the potential to contribute to historical, archaeological, and, increasingly, ecological knowledge. Many of these may have recreational value, while significant numbers of these shipwrecks are potential grave or memorial sites. The intent of the ASA was to protect historic shipwrecks from damage or destruction by salvors – principally “treasure hunters” seeking to find and remove artifacts of portable economic value.

Under the ASA, the U.S. asserted title to all abandoned shipwrecks embedded on the submerged lands or in coralline formations protected by a state, or on submerged state lands, and eligible for, or included in the National Register of Historic Places.²² The ASA transferred the title to abandoned shipwrecks to the state or Indian Tribe owning the submerged lands on which the wrecks reside. Abandoned wrecks in federal waters remain the property of the United States.

Legal challenges by the treasure hunting community have questioned the universal transformation of abandoned historic shipwrecks from private property to public resources. In determining whether a shipwreck is “abandoned” for the purposes of the ASA, U.S. federal admiralty courts in individual cases have failed to come to a consensus on what an “abandoned shipwreck” is and who has the burden of proof (i.e., the government or the potential salvor), thus limiting the applicability of ASA for shipwreck protection.

The ASA was forward-thinking in directing states to establish a multiple-use management regime for the protection of shipwrecks that also incorporates the protection of natural resources. Additionally, the Act encourages States to create underwater shipwreck parks or preserve areas to encourage public access and education and to provide additional protection for shipwrecks and their associated ecosystems.

B. Tribal/Indigenous Authority and Responsibility

Most tribes and indigenous groups have the inherent authority to designate areas of cultural importance to their people. These designations typically do not extend beyond their own members or the legally recognized geographic boundaries under tribal or indigenous authority. Heritage sites and areas designated and valued by native peoples are vital components of the rich maritime heritage of what is now the United States. Respecting the traditional authority and ability of native peoples to manage and maintain their cultural and natural heritage will serve to strengthen the national system. Regular, meaningful consultation occurs when tribes and indigenous groups are consulted from the beginning of, and continuing throughout, any process or proposed policy that may affect their rights.

²¹ Abandoned Shipwreck Act, 43 U.S.C. § 2101-2106 (1987).

²² Abandoned Shipwreck Act, 43 U.S.C. § 2105 (1987).

1. Government-to-government consultation process with federally recognized tribes

In a Presidential Memorandum regarding tribal consultation (November 5, 2009), President Obama re-affirmed Executive Order 13175²³, enacted by President Clinton (November 6, 2000), and directed that “executive departments and agencies (agencies) are charged with engaging in regular and meaningful consultation and collaboration with tribal officials in the development of Federal policies that have tribal implications, and are responsible for strengthening the government-to-government relationship between the United States and Indian Tribes.”²⁴

In recognition of the sovereignty of federally recognized Indian Tribes (Indian Tribes) and their special relationship with the U.S. Government, federal agencies that are considering designating a marine or Great Lakes area for marine protections are required to engage with Indian Tribes in formal government-to-government consultation. Tribal consultation involves relationship-building and is most effective when federal agencies approach the process from that perspective. President Obama’s memorandum on tribal consultation states, “History has shown that failure to include the voices of tribal officials in formulating policy affecting their communities has all too often led to undesirable and, at times, devastating and tragic results. By contrast, meaningful dialogue between Federal officials and tribal officials has greatly improved Federal policy toward Indian tribes. Consultation is a critical ingredient of a sound and productive Federal-tribal relationship.”²⁵

The designation of marine protected areas by others within any Indian Tribe’s historic marine or Great Lakes area has broad implications that may include: treaty rights, fishing rights, subsistence rights and culturally important areas. Treaties with the U.S. government form a trustee relationship that, in addition to consultation requirements, requires federal agencies to uphold the rights of Indian Tribes and to assist in the maintenance of their treaty resources. Indian Tribes have legal authority and responsibility to protect their cultural and natural resources. In some areas, such as the marine waters of Washington State and in the Great Lakes, Indian Tribes have treaty rights that extend well into the ocean and the Lakes. Treaty rights to fisheries and other resources include the responsibility to maintain habitats that sustain them. Within marine and Great Lakes treaty areas, Indian Tribes are active co-managers with federal, state and fellow tribal agencies.

2. Traditional/historical custodians and authorities, including non-federally recognized tribes

²³ Executive Order 13175, 65 FR 67249 (November 6, 2000).

²⁴ Presidential Memorandum (November 5, 2009). Retrieved September 30, 2011 from: <http://www.whitehouse.gov/the-press-office/memorandum-tribal-consultation-signed-president>

²⁵ Presidential Memorandum (November 5, 2009). Retrieved September 30, 2011 from: <http://www.whitehouse.gov/the-press-office/memorandum-tribal-consultation-signed-president>

Over the last two decades, a global movement has emerged that seeks recognition under international law for the human rights of indigenous peoples. Much of the work is occurring under the auspices of the United Nations (UN) Human Rights Commissions and the Sub-Commission on Prevention of Discrimination and Protection of Minorities. Basic to the human rights of indigenous peoples is the ability to exercise self-governance.

The United Nations Declaration on the Rights of Indigenous Peoples²⁶ (UNDRIP), adopted in March 2008, acknowledges the importance of collective rights for indigenous peoples to carry out their distinct ways of life. Similarly, numerous provisions recognize the importance of the spiritual and cultural ties that indigenous peoples have to their homelands. It engages basic concerns of indigenous peoples for the protection of the natural world, recognizing that indigenous peoples “have the right to maintain and strengthen their distinctive spiritual and material relationship with the lands, territories, waters and coastal seas,” as well as the right “to uphold their responsibilities to future generations in this regard.”

In an announcement at the White House Tribal Nations Conference, December 16, 2010, the President stated that the United States would now support the UNDRIP. This non-binding, yet historic document speaks to the responsibility of governments to fully engage with all tribal and indigenous peoples, “recognized” or “non-recognized,” which may be affected by proposed actions or policies.

- Article 18 states: “Indigenous peoples have the right to participate in decision-making in matters which would affect their rights, through representatives chosen by themselves in accordance with their own procedures, as well as to maintain and develop their own indigenous decision making institutions.”
- Article 26 states: (1) “Indigenous peoples have the right to the lands, territories and resources which they have traditionally owned, occupied or otherwise used or acquired;” And (3) “States shall give legal recognition and protection to these lands, territories and resources. Such recognition shall be conducted with due respect to the customs, traditions and land tenure systems of the indigenous peoples concerned.”
- And Article 31 states: “(1) Indigenous peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions...”

The International Union for Conservation of Nature (IUCN), in collaboration with UNESCO’s Man and the Biosphere Programme created guidelines for protected area managers.²⁷ The IUCN guidelines recognize tribal and indigenous peoples as the “custodians” of their sacred sites²⁸ and notes that for some groups this means “ownership” of the site while for others it does not. In some instances, determining past and present custodians is relatively simple when “a clearly

²⁶ United Nations Declaration on the Rights of Indigenous Peoples (March 2008). Retrieved November 17, 2011 from: http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf

²⁷ Wild, R. and McLeod, C. (Eds.) (2008). *Sacred Natural Sites: Guidelines for Protected Area Managers*. Gland, Switzerland: IUCN.

²⁸ Sacred site: An area of special spiritual significance to peoples and communities. In *Sacred Natural Sites: Guidelines for Protected Area Managers*, p. xi.

identifiable group of people with well-defined authority and leadership structures” are in place. In some cases, there can be more than one custodial group and these may “be dispersed and diffuse.”

MPA managers should acknowledge and respect the authority and rights of those peoples that occupied marine and Great Lakes coastal areas before colonization, and recognize that indigenous peoples have a sacred connection to the land and waters. At a minimum, these first peoples must be consulted in conjunction with any potential designation of cultural heritage MPAs. Indigenous peoples have the power to designate MPAs which affect only their own members. Tribally-designated sites are eligible to join the national system, and will contribute to its design, planning, and implementation principles, as well as its cultural heritage conservation goals.

C. State and Local Authority

While the States and Territories own and manage abandoned historic shipwrecks and other marine cultural resources on submerged lands, no single template exists for managing these cultural resources at the state and local level. Only a few states have a specific historic shipwreck law.²⁹ Most states have some form of broad state or local laws as their basis for authority to protect cultural resources on submerged lands, with some states possessing the ability to designate cultural resource protected areas. Furthermore, submerged lands are often under the jurisdiction of multiple agencies, which adds additional layers of complexity.

As noted earlier, the ASA transferred title to abandoned shipwrecks to the states. The National Park Service (NPS) developed non-binding guidelines for states to implement the ASA, which rely on individual states to determine their own course of action. Designating MPAs may be part of that action; however, states and localities face a lack of common guiding principles, staff, and resources to support prudent place-based management of cultural resources.

Some examples of MPAs created through state-level authority include Maryland’s *U-1105* “Black Panther” Historic Shipwreck Preserve (Black Panther Preserve), Florida’s Underwater Archaeological Preserves, the Michigan Underwater Preserve System, and Wisconsin’s Maritime Trails. The Black Panther Preserve protects and interprets the German submarine scuttled in Maryland’s Potomac River during explosives testing in 1949. It was designated in 1995, entered on the NRHP in 2001, and joined the national system as a charter member in 2009. It is cooperatively managed by the U.S. Navy, St. Mary’s County Museum Division, and State government through the Maryland Historical Trust (MHT). As a military vessel, the *U-1105* is protected by the Sunken Military Craft Act (2005). There is no Maryland legislative mechanism to designate historic shipwreck preserves, so MHT and St. Mary’s County have partnered with the U.S. Navy to establish a multiple-use management regime for the protection and recreational use of this significant cultural resource, as called for in the ASA.

²⁹ State Submerged Cultural Resource Laws. Retrieved September 1, 2011 from: <http://www.nps.gov/archeology/sites/subcul.htm>

Florida's Underwater Archaeological Preserve System (Florida's Preserves) is based on historic shipwrecks around the state that have been interpreted as "museums in the sea" for divers and snorkelers. The enabling policies behind Florida's Preserves are the Florida Historical Resources Act (2007),³⁰ and Florida Administrative Rules, Chapters 1A-31³¹ and 1A-32.³² These laws do not explicitly mention underwater preserves, but rather the Division of Historical Resources interprets the mandate to increase public access and interpretation to submerged cultural resources via the creation of shipwreck preserves.³³ Florida's Preserves are listed in the MPA Inventory, but have not yet been nominated to join the national system.

Michigan's Underwater Preserve System was established in 1980 through the work of the sport diving community. It now consists of 13 preserves covering more than 2,300 miles of submerged lands. The Thunder Bay Preserve is co-managed with NOAA's Office of National Marine Sanctuaries. Other than Thunder Bay, none of the Michigan Preserves are currently part of the national system. The governing authority is Michigan's Natural Resources and Environmental Protection Act.³⁴

Some states have statutory authority to create marine protected areas for cultural heritage resources, but have yet to exercise it. For example, Wisconsin's Field Archaeology Act³⁵ provides the Wisconsin Historical Society with the authority to establish bottomland preserves for submerged cultural resources. Although shipwrecks in Wisconsin are actively managed, with 42 listed on the National Register of Historic Places, and interpreted through a statewide maritime trails program, no official preserves have yet been designated. The need for broader place-based protections is recognized by state managers. They are working with NOAA's Office of National Marine Sanctuaries to consider a new co-managed sanctuary in Lake Michigan.

These state and local initiatives represent success stories of shipwrecks that have been protected and interpreted by their respective managing agencies. They also represent a considerable degree of individual initiative. Many other submerged cultural resources do not receive targeted protection or interpretation, due largely to a lack of consistency in state and local authority, and inadequate resources and staff to implement a successful management plan. A single nationwide implementation strategy is not possible, as different local circumstances will dictate different strategies. The ASA, as well as the associated implementing guidelines created by NPS, attempt to provide consistency in managing shipwrecks, but much more is needed to realize Congressional intentions.

³⁰ Florida Historical Resources Act, Fla. Sta. § 267 (2007).

³¹ Procedures for Conducting Exploration and Salvage of Historic Shipwreck Sites, Florida Administrative Rules, Chapter 1A-31 (1987).

³² Archaeological Research, Florida Administrative Rules, Chapter 1A-32 (1975).

³³ D. Scott-Ireton, personal communication, April 16, 2009.

³⁴ Michigan's Natural Resources and Environmental Protection Act, Michigan Compiled Laws § 324.76101 *et seq.* (1994).

³⁵ Wisconsin's Field Archaeology Act, Wis. Stat. § 44.47 (1989).

D. Cultural Heritage Governance Recommendations

We recommend that the national system partners:

2. Advance and, where practical, adopt integrated cultural heritage governance practices that advance the National Ocean Policy and embrace ecosystem-based management principles that recognize and protect maritime cultural heritage;
3. Recognize that diverse cultural heritage management approaches exist at the local, state, tribal, and national levels, and accommodate flexible practices that best align local knowledge and circumstances with the principles embodied in the National Ocean Policy; and
4. Explicitly recognize the place-based authority and rights of tribal and indigenous peoples in establishing and managing MPAs.

IV. Cultural Heritage Resources in the MPA Inventory and National System

The MPA Center has inventoried 1,689 MPAs, most of which are eligible for potential inclusion in the national system. Following the initial rounds of nominations for the national system, review of the national system MPAs clearly showed that cultural heritage resources were under-represented. Five percent of the inventoried sites identify cultural heritage as their primary conservation focus. This figure, according to knowledgeable MPA FAC members, appears very low. Among the MPAs in the national system, the percentage is smaller, with only 2 percent identifying cultural heritage as their primary conservation focus. An additional 20 percent of national system MPAs include protections for cultural heritage resources, although this is not the MPAs' primary focus. These small numbers do not reflect the quantity, quality, or composition of the nation's maritime heritage resources. Four factors begin to explain the low recognition of marine cultural heritage resources in the national system:

- The focus has largely been limited to the past and to physical objects, and has neglected to include living cultures and contemporary cultural connections;
- Managers may not understand the benefits to their MPAs by inclusion in the national system;
- Lack of understanding that including cultural heritage sites benefits the national system;
- The common practice of identifying, analyzing, and managing cultural and natural resources in complete separation.

The inclusive guiding principles, the expanded national system definitions and criteria, and the integrated management approach proposed here for cultural heritage resources will help address the two basic aspects of the cultural heritage challenge:

- Attracting existing MPAs that have cultural heritage resources which meet national system eligibility criteria to join the national system; and

- Reducing uncertainties in recognizing cultural heritage resources within existing and potential MPAs.

As integrated and adaptive management is increasingly practiced, the Cultural Landscape Approach (CLA), as described below, will help MPA managers nationwide to identify and adopt policies and practices that manage cultural and natural resources at the ecosystem and landscape levels.

A. Cultural Heritage Criteria

As described in the 2008 Framework, cultural heritage MPAs must conform to criteria for including sites on the National Register of Historic Places (NRHP).³⁶ These criteria are central to the established federal model for heritage preservation.

NRHP standards allow for sites to receive recognition and protection whether they are listed on the National Register, or merely determined eligible for listing. The national system also incorporates this flexibility. NRHP standards are well-established and widely acknowledged in the cultural resource management community, but they do not adequately accommodate all types of cultural heritage resources the national system was designed to conserve and manage, such as sites of cultural significance, subsistence harvest areas, and traditional or ceremonial areas. The criterion also does not encompass cultural heritage resources with the potential to provide biophysical information important to understanding past and contemporary ecosystem conditions, including archaeological resources and cultural landscapes that might not qualify for the NRHP.³⁷

To address this, the MPA FAC has recommended that the cultural heritage criterion be expanded to include:

- 1) National Register of Historic Places;
- 2) Tribal and Indigenous Designations;
- 3) Other Cultural Landscapes.

³⁶ As defined in the National Register of Historic Places, cultural heritage sites are initially assessed by four criteria: A) associated with events contributing to the broad pattern of our history; B) associated with the lives of persons significant to our history; C) embody a distinctive characteristic or type; and D) have yielded or may be likely to yield important historic or prehistoric information (National Historic Preservation Act, 16 U.S.C. § 470 *et seq.* (1966)).

³⁷ The National Historic Preservation Act contains a section naming traditional cultural properties (TCPs) which includes both archeological sites and living areas of cultural importance. National Register Bulletin 38 defines a traditional cultural property “as one that is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community’s history, and (b) are important in maintaining the continuing cultural identity of the community.” This category is a valuable addition to the National Register, but remains bound by the constraints of the National Register. TCPs do not include intangible resources and practices, they must define a geographic boundary, and they are provided no actual protection.

B. Cultural Heritage Resource Gaps and MPAs

Of the 1,689 designated MPA sites in the Inventory, 129 are categorized as Marine Cultural Heritage Areas. The gap in cultural heritage resources is accentuated by the difficulty of recognizing their presence and significance in MPAs. By virtue of their designation alone, all MPAs have cultural meaning and many, perhaps most, include important cultural resources. The MPA characterization scheme laid out in the Framework is based on the conservation goals of natural heritage, cultural heritage, and sustainable production, along with their accompanying conservation objectives. While an MPA may have multiple conservation objectives, or may even be categorized by more than one conservation goal, the MPA Center has traditionally classified each MPA as having a primary conservation focus. This classification assumes that each MPA had one primary conservation focus as the basis of its establishment and made it easier to conduct broad statistical analysis of the nation's MPAs. As the national system has evolved, however, it has become evident that designation of a primary conservation focus obscures the diversity of existing MPAs and the range of resources currently receiving, or legally requiring, protection.

This approach has proven a limiting factor in the full characterization of MPAs, as cultural and natural resources are not, in reality, mutually exclusive categories. This division tends to obscure what MPAs protect, and hinders the accurate description of national system MPAs. Many managers already implement practices that accommodate resource diversity. Understanding the many interrelationships among cultural and natural resources may prove vital to sustaining critical individual resources: Biological diversity and ecological resilience are intimately connected with cultural sustainability. For example, in Alaska natural resources that are culturally revered include black seaweed harvesting sites, herring spawning grounds, and whaling sites. Black seaweed occurs in special rocky intertidal places where physical oceanographic features combine with seafloor substrate and sun exposure regimes in unique coastal locations. The characteristics that make a place an area of special ecological significance may also imbue them with extraordinary cultural meaning. Incorporating a more integrated management strategy would facilitate more holistic and appropriate treatment of both cultural and natural resources in the nation's MPAs.

As the national system has developed, it has become apparent that analysis should more appropriately focus on resources that MPAs actually protect or have the ability to protect, rather than why the MPA was initially established. As the MPA Center continues to gather data on individual resources in each MPA, an increasing trend toward multiple-resource protection is evident.

Knowledge of marine cultural heritage is currently limited among the public and resource managers. A better understanding of cultural foundations and of heritage resources will encourage a stewardship ethic and public support for MPAs. A component for understanding this type of management would be educational outreach to tribal and non-tribal schools, museums and fishing communities about the cultural landscape approach.

C. MPA Inventory and National System Recommendations

We recommend that the MPA Center, in concert with national system partners:

5. Reanalyze the MPA Inventory using the expanded cultural heritage definitions to identify cultural heritage resources both inside and adjacent to existing MPAs and develop a more comprehensive census of heritage resources associated with MPAs;
6. Expand analysis of existing national system MPAs to identify a greater diversity of cultural and natural resources that would benefit from additional protection and management;
7. Target outreach and assistance to MPA managers, particularly in tribes and indigenous groups, to encourage further inclusion of existing and potential cultural heritage MPAs in the national system;
8. Provide, improve, and coordinate MPA manager training programs and initiatives regarding cultural heritage resources, with additional attention given to tribal and indigenous knowledge and authorities;
9. Expand educational and outreach ties to museums, schools, and cultural heritage programs.

In order to fulfill the intent of the EO, we further recommend that:

10. DOC and DOI increase capacity for the updated inventory and evaluation of coastal and marine cultural resources. Specifically, resources should be provided to the MPA Center for cultural heritage staffing and programs necessary to implement these recommendations.

V. Integrated Management: A Cultural Landscape Approach

Determining the importance of cultural heritage resources for the purposes of managing MPAs is a challenging task. Recognizing the full spectrum of an MPA's cultural heritage potential requires managers to understand that cultural resources can be intangible, material, or a combination of both. Furthermore, managers must recognize that individual or classes of cultural resources associated with an MPA may not be universally valued or valued for the same reasons by all cultures, stakeholder groups, or scientific and professional disciplines. Managers responsible for cultural resources in an MPA will often have to depend on information and judgments that come from outside their areas of expertise or from representatives of cultural groups to which they do not belong. Ecosystem-Based Management requires understanding the human dimensions operating within ecosystems, rather than using the separated vantage points of "natural" and "cultural" resources.

An ecosystem, according to the definition adopted in the *Framework*, is “a geographically specified system of organisms, including humans and the environment, and the process that control its dynamics.”³⁸ According to, and required by, the *Framework*, ecosystem-based management “looks at all the links among *living* and non-living resources” and “reflects the relationships among all ecosystem components, including *humans* and nonhuman species, and the environments in which they live [emphasis added].”^{39 40} On an applied level, ecosystem-based approaches to management consider “a wider range of ecological, environmental, and human factors in the exploitation of marine resources.”⁴¹ They involve “broadening stakeholder involvement, evaluation of multiple simultaneous drivers or ‘pressures’ on ecosystems.”⁴² Cultural heritage, in its many dimensions, must be included before Ecosystem-Based Management can be fully realized in the national system. Conversely, an intimate understanding of ecosystem functions and natural history is required for effective and comprehensive cultural heritage management. In addressing these needs, the MPA FAC recommends integrated management of cultural heritage resources based on a Cultural Landscape Approach (CLA). Analogous and complementary to ecosystem-based management, CLA examines the relationships among living and non-living resources, and their environment.

A. Defining a Cultural Landscape Approach

A Cultural Landscape Approach (CLA) offers a means for looking at the important ways in which specific cultural and environmental processes overlap and influence one another. The intellectual concept of cultural landscapes has been established for nearly a century, but its application to the management of marine resources is quite new. Cultural landscapes identify combinations of human activity and natural areas and resources that have left identifiable cultural and ecological patterns. In the past, cultural landscapes have been identified as another type of resource meriting preservation; CLA instead uses cultural landscapes as an analytical framework to understand places and their associate resources.⁴³ Every cultural landscape captures unique combinations of nature and culture. These are expressed in the

³⁸ *Framework for the National System of Marine Protected Areas of the United States of America* (2008), p. 50.

³⁹ *Framework for the National System of Marine Protected Areas of the United States of America* (2008), p. 50.

⁴⁰ The Ecosystem-Based Management (EBM) Strategic Action Plan of the National Ocean Policy defines EBM as “an integrated approach to resource management that considers the entire ecosystem, including humans, and the elements that are integral to ecosystem functions.” Retrieved October 3, 2011 from: http://www.whitehouse.gov/sites/default/files/microsites/ceq/sap/sap_1_ebm_full_content_outline_06-02-11_clean.pdf

⁴¹ Curtin, R. and Prellezo, R. (2010). Understanding Marine Ecosystem Based Management: A Literature Review. *Marine Policy*, 34(5), p. 821.

⁴² Murawski, Steven (2007). Ten Myths Concerning Ecosystem Approaches to Marine Resource Management. *Marine Policy* 31(6), p. 682.

⁴³ Potential applications of NPS cultural landscape standards are discussed in Mather, I.R. and Jensen, John O. *Investigations into Block Island's Submerged Cultural Sites and Landscape for the Rhode Island Ocean Special Area Management Plan 2010*. Technical Report #5 in *Rhode Island Ocean SAMP Volume 2*. Adopted by the Rhode Island Coastal Resources Council October 19, 2010. Retrieved September 1, 2011 from: <http://seagrant.gso.uri.edu/oceansamp/documents.html>

condition of the natural environment, in material and intangible cultural heritage, and in the meaning or significance attached to places and resources by different cultural or stakeholder groups. Depending on the scale applied, an MPA may involve multiple ecosystems and encompass many ecological niches. A cultural landscape may extend far beyond the boundaries of an individual MPA and, in some instances, may help identify ecological and cultural connections between two or more MPAs, perhaps even across great distances.

Informed by CLA, managers can better understand the human connections to their particular MPAs as well as identify the important human influences on critical marine ecosystems over time.⁴⁴ Less developed or nearly pristine MPAs may have fewer or less complex cultural landscapes that should be relatively easy to identify and integrate into management plans. Managers of MPAs with more diverse concentrations of past and present human activity, such as heavily populated coastal areas, may find adopting CLA initially more challenging, yet ultimately highly beneficial. An effective area-wide CLA analysis should aid in determining what combinations of cultural and natural factors have exercised the most important historical and contemporary influences on the resources within their MPA. A CLA analysis can identify the past and living cultural voices associated with an MPA, helping ensure the fullest possible public engagement in planning and management.⁴⁵

B. Cultural Heritage Sites, the Ecosystem, and Access

Even a cursory look at the immersed environment reveals a submerged cultural landscape that is as vibrant and informative as its land-based counterpart. Iconic landscapes revealing broad patterns in maritime history exist in the marine setting. For example, in the Pacific, amphibious landing craft and submerged naval aircraft are not just individual sites, but part of a broader World War II landscape, one carried onto the beaches and islands themselves. Historic whaling shipwrecks can be related to former whaling ports and to the location of historic whaling grounds, all part of a whaling landscape of the 19th century, the cultural footprint in a marine setting. A CLA brings out these historical land/sea connections, and provides greater context for assessing archaeological and historical significance. A CLA also highlights the relationship such properties and locations have with the environment, and with human uses and recreation.

1. Sites as History and Archaeology

CLA provides better tools to understand the archaeology of specific marine areas and of multiple archaeological sites. An archaeological site is a location featuring evidence of past human activity. Shipwrecks preserve evidence of patterned maritime behavior in terms of

⁴⁴ CLA in the Rhode Island Ocean SAMP revealed the dynamic influence of industrial energy transportation on the region's maritime archaeological resources as well as the built environment of the coastal zone. The energy landscape makes a direct connection between historical conditions contributing to shipwrecks in the past with the contemporary threat to ecosystems posed by oil barge traffic, as the source of multiple spills in recent decades.

⁴⁵ The MPA FAC has approved a number of recommendations of the Coastal and Marine Spatial Planning (CMSP) Subcommittee, regarding cultural heritage resources, found in Appendix B.

construction, cargo, and trade routes. Historic properties represent a significant proportion of the submerged cultural resource, including shipwrecks and historic sunken aircraft, submerged remains of shipyards, wharves, locks, canals, fishing weirs, aids to navigation, etc.⁴⁶

Archaeology in the marine context also goes beyond just nautical topics to include subjects such as locations of ancient shorelines and inundated habitation sites. For example, ancestral lands formerly occupied by indigenous peoples, and now submerged by sea level rise following the last period of glaciation have been found in some regions of the U.S. and its territories. As our knowledge of the ocean and our abilities to explore it increase, more submerged relict landforms that might have been settled in the distant past are actively being searched for offshore. When these discoveries are made, they must be respected and appropriately protected.

The submerged stone ruins of fishponds and fish traps in the Pacific provide additional examples of unique archaeological information, and are evidence of indigenous aquaculture and fishing technology. These fishponds required a massive investment in labor and materials, and played a crucial role in sustaining populations for hundreds if not thousands of years. Rather than simply confirming existing narrative or theory, heritage sites are primary sources capable of contributing new information, particularly when related to seafaring cultures or activities under-represented in the existing historical or archaeological records.

2. Traditional Knowledge and Sustainability

The cultural landscape of coastal and Great Lakes tribal and indigenous peoples includes harvest areas that sustained permanent villages and seasonal or migratory harvesters. These areas were well known, defined, and in many cases actively managed by local communities to sustainably support their people. Wise use of resources was and is integral to supporting the people living in coastal areas. Traditional knowledge of these important areas is the product of the accumulated lessons of generations of local inhabitants and is a precursor of what is now termed “ecosystem-based management.” Throughout history, coastal areas have served to support tribal and indigenous peoples by providing nutrition, clothing, tools, and items used in broader economies, such as dentalia or quahog shells used as currency. Since colonization, these same areas have been lost by many groups but retained by others that still depend upon them for nutritional subsistence, cultural and spiritual importance, and economic livelihood. The importance of these areas to native peoples cannot be overstated. They remain central to the identity of those who have depended upon them for millennia. The first peoples that inhabited coastal and Great Lakes areas were and continue to be a part of the local ecology. There is no separation of them from the land, coast, and waters. Recognition of the history of these areas and the traditional knowledge of them passed down to current residents will aid efforts to sustain them for all in the future.⁴⁷

⁴⁶ Muckelroy, Keith (1978). *Maritime Archaeology*. London: Cambridge University Press.

⁴⁷ “The collective storehouse of human knowledge about the natural world is commonly called ‘traditional ecological knowledge’ (TEK) and it can be defined as ‘the knowledge base acquired by indigenous and local peoples over hundreds of years through direct experience and contact with the environment’ (Traditional

3. Subsistence and Traditional Food Ways

The rights tribal and indigenous peoples have to protect their traditional foods are contained locally in landmark decisions such as *United States v. Washington*⁴⁸ (the Boldt Decision) and the Alaska Native Interest Lands Conservation Act; broader federal and international recognition of hunting and gathering rights are acknowledged in treaties and in federal and state statutes. Subsistence gathering and access to traditional food sources are essential rights of the historic caretakers of coastal areas and should be considered a priority when regional governments are considering access limitations. Likewise, the gathering of traditional foods and other items for ceremonial or cultural events should be considered a priority in coastal areas. Cultural heritage resource protected areas identified by indigenous or non-indigenous authorities can protect these significant areas while including historic uses by those who have been part of the local ecosystems since time immemorial. This type of management is consistent with a CLA to these areas where people and nature are recognizably bound together.

4. Sites and the Ecosystem

Taphonomic (or site formation) processes begin to shape the heritage resources at the moment of wrecking or inundation through the deterioration of organic materials and the corrosion, concretion, and weathering of artifacts. These processes are referred to as “extraction filters,” one of the main factors in the overall formation of the archaeological site. Conversely, heritage resources also affect the environment. Wrecking can cause massive mechanical damage to reef structures, and large components of wrecked ships can continue to move during subsequent storms. However, while this might be the case with accidental ship sinkings, ships deliberately sunk as artificial reefs are strategically placed to avoid damage to natural reef structures.

Further, the long-term effects of iron leaching into the marine environment are now seen as potential drivers of rapid change in the dominant biota of coral reef environments, inducing algae growth.⁴⁹ However, beyond these negative impacts to both cultural heritage and biological resources, there is another environmental aspect to consider: shipwrecks that create artificial reefs provide ecological benefits, as well as recreational and economic opportunities. Shipwrecks as artificial reefs have been accepted as beneficial and should be allowed to continue as part of economic and habitat development, and their placement is overseen by governmental authorities. Some artificial reefs may not presently be considered cultural heritage sites, though given time, they may qualify as such. These sites benefit the biological

Ecological Knowledge: An Important Facet of Natural Resources Conservation. USDA Natural Resources Conservation Service, Technical Note 1).

⁴⁸ *United States v. Washington*, 384 F. Supp. 312 (W.D. Wash. 1974).

⁴⁹ Work, Thierry, Aeby, Greta, and Coles, Steve (2008). Distribution and morphology of growth anomalies in *Acropora* from across the Indo-Pacific. *Diseases of Aquatic Organisms*, 78, 255-264.

environment by providing marine species with substrate for colonization, habitat for safety, and food sources. For example, shallow-water biological surveys in the Hawaiian Archipelago reveal higher rates of biodiversity for both benthic and fish species through a wide range of shipwreck sites and locations.⁵⁰

The relationships between cultural heritage resources and the coastal and marine ecosystems are complex and cannot be truly understood by looking at individual types of resources in isolation. CLA organizes information about the environment to illustrate the numerous connections between maritime heritage resources and the environment. For example, the wrecks of 19th century whaling vessels among Pacific atolls provide a bridge between history, archaeology, and the environment. The artifacts illustrate the nature of the whaling technology of the period. The abundant cannon and ammunition make a historical statement about the unsettled socio-political conditions of the early 19th century Pacific. The condition and distribution of site features speak to coral reef-building processes and sediment transport. The presence of high concentrations of iron in the form of fastenings and ballast may influence reef biota. Whaling documents related to these voyages contain a wealth of information on whale behavior, location, and abundance.

5. Sites and Access

Public access is a central value inherent within cultural heritage management. The National Historic Preservation Act of 1966 states that “the preservation of this irreplaceable heritage is in the public interest so that its...benefits will be maintained and enriched for future generations of Americans.”⁵¹ The Abandoned Shipwreck Act of 1987 clarifies that “State waters and shipwrecks offer recreational and educational opportunities to sport divers and other interested groups, as well as irreplaceable State resources for tourism..,” and that the State will “provide that reasonable access by the public to such abandoned shipwrecks ...”⁵² Globally, public access to heritage resources is one of the central principles of the ICOMOS (International Council on Monuments and Sites) 1990 Charter for the Protection and Management of the Archaeological Heritage.

Many submerged cultural resources are sites for heritage, recreational, and educational tourism. In many areas, recreational diving on shipwrecks has become the most popular scuba activity. Shipwrecks are frequently first discovered by recreational scuba divers, underscoring the unique public access issues associated with submerged cultural heritage resources. This segment of the public has direct access to these resources and a unique responsibility for their preservation. Real preservation and protection comes from instilling in the public the

⁵⁰ Smith, Derek M. (2010). *The Ecology of Shipwrecks in the Hawaiian Archipelago: an Assessment of Biodiversity*. M.S. Thesis, University of Hawaii at Manoa.

⁵¹ National Historic Preservation Act, 16 U.S.C. § 470 (1966).

⁵² Abandoned Shipwreck Act, 43 U.S.C. § 2103(a) (1987).

understanding that cultural heritage resources and objects have an enduring public and personal worth, as part of our shared heritage.⁵³

Responsible access must be exercised by the public and practitioners alike to protect the cultural heritage resource. Where public access to a cultural heritage site would cause a significant invasion of privacy, risk harm to the historic resources, or impede the use of a traditional site by practitioners, information about the location, character, and ownership of the resource may be withheld.⁵⁴ Further, some cultural heritage sites simply might not be suitable for general public access. Responsible public access must be balanced with the long-term preservation of the cultural heritage resource itself.

At the heart of tribal and indigenous cultures are sacred sites of gathering, ceremony and worship. These are often natural sites of immense importance and history in the cultural landscape of indigenous peoples. In the marine and Great Lakes world, they can be natural areas of the shore, marine vistas to witness the sunrise, sites of power, and areas designated in storytelling for their importance and history.

Sacred sites are extremely sensitive areas, and in all cases, the people to whom these sites are important should decide if those sites should be known by any but them.⁵⁵ Designation and publication of sacred sites may lead to unwanted attention and visits. On the other hand, some cultures may decide that declaring such sites is advantageous, and may be an additional way to protect them. In any situation, sacred and ceremonial sites must remain accessible to the people whose cultural identities depend upon them.

By focusing on human connections to heritage rather than on just heritage objects, CLA helps managers and the public to recognize significant, but easily overlooked, public use and access values associated with MPA locations. Activities associated with non-extractive recreational scuba diving and surfing, for example, connect with cultural values such as conservation and public access and may be associated with specific places within MPAs. These human associations with submerged topography or natural resources can imbue specific locations with cultural importance even without the presence of human-produced physical objects or artifacts. Because these activities and other cultural elements are tied to specific geographic places, they are included in cultural landscapes that can be mapped, analyzed, and managed in an integrated fashion. The importance of access and use may be evaluated against a landscape backdrop that makes visible the values and resources associated with other human activities or goals, such as economic development or ecological restoration.

⁵³ Scott-Ireton, Della A. (2007). The Value of Public Education and Interpretation in Submerged Cultural Resource Management. In John H. Jameson, Jr. and Della Scott-Ireton (Eds.), *Out of the Blue: Public Interpretation of Maritime Cultural Resources* (pp. 19-32). New York: Springer.

⁵⁴ National Historic Preservation Act, 16 U.S.C. § 470w-3(a), section 304 (1966).

⁵⁵ Wild, R. and McLeod, C. (Eds.) (2008). *Sacred Natural Sites: Guidelines for Protected Area Managers*. Gland, Switzerland: IUCN.

C. Benefits of Utilizing a Cultural Landscape Approach in the MPA process

Adopting CLA can improve the effectiveness of MPA management by breaking down the artificial barriers between cultural and natural resources and processes. Such barriers foster resource conflicts and segmented management, which can have destructive effects on cultural resources and on the marine environment. For example, without understanding the historical component within the marine environment, efforts at marine "debris" removal or sand replenishment schemes may completely destroy cultural or archaeological sites. CLA identifies the connections between maritime heritage resources such as historic shipwrecks and the environment. Beginning with its loss, a shipwreck begins to develop a complex relationship with the surrounding ecology: a shipwreck may pose an immediate or longer-term threat as a source of pollution, while at the same time providing a variety of ecological services including serving as fish aggregating structures and as colonization sites for complex biodiversity.

Many indigenous cultures view humans as an integral but equal component of the environment, rather than as stewards of natural resources. Their survival and worldview are based on keen awareness and respect for their surroundings. Ensuring that cultural and natural resources remain for generations to come is critical for maintaining the cultural identity and well-being of tribal and indigenous peoples, and potentially for others in this nation. Contemporary collaboration among tribal, federal, and state land managers increasingly recognizes management authorities and merges non-tribal management techniques with tribal practices. This collaboration is experiencing unprecedented success in managing upland forests, wildlife, riverine and, most recently, marine environments. Currently in Washington State, the Quinault Indian Nation is working with federal, state, and county partners to restore the upper Quinault River, long scarred by logging and subsequent erosion, to rebuild habitat for the salmon runs central to their identity.

Utilization of CLA raises cultural heritage resource management to the ecosystem level and assists with the integration of knowledge, memories, and empirical observations of tribal and indigenous cultural groups and other resource users, such as scuba divers and commercial and sport fishermen, into MPA management. A collaborative and respectful approach with tribal and indigenous peoples will serve to increase participation in identifying and managing cultural heritage resources, improve cultural heritage protections, and integrate management of marine areas. This type of CLA will help to create a truly representative national system. CLA principles require the consideration of all cultural connections and peoples, thus ensuring that voices and values of tribal and indigenous peoples, as well as other affected communities, are heard and understood. Incorporating and actively valuing these perspectives will encourage the broad-based public participation required to maintain a successful and sustainable MPA. MPA managers will derive additional benefits by having access to a comprehensive source of place-based knowledge to address recognized current and future challenges such as the "shifting baselines" syndrome. Existing natural resource management is ineffective at incorporating the human-induced aspects of change over time; CLA characterizes this change in a culturally and ecologically integrated manner.

Adopting CLA as a management approach for cultural heritage does not supersede existing historic preservation and cultural heritage laws and practices; rather, it provides a means for developing new levels of information about an MPA and its resources. By making cultural resources and human relationships with the environment visible across time and culture, CLA will improve cultural heritage resource management decisions through the development of new place-based contexts for evaluating resources under existing federal cultural heritage policies. With CLA, all cultural heritage is potentially important for the information and perspectives that it may supply about people and the environment; only a subset of the identified cultural heritage will merit active preservation. For example, scour marks from draggers, ballast dumps, sunken logging timber, or old navigation markers, may not need preservation, but they can provide important evidence about the way humans interacted with the marine environment. Indeed, CLA can help to identify those resources requiring preservation as well as those that may have little lasting value or that pose a tangible threat to the environment or the public. CLA depends first on the mining and integration of existing sources of historical, cultural, and ecological information, and it can be phased or scaled based on the availability of resources and the complexity of an MPA. The initial phases of incorporating CLA do not depend on extensive field studies, and can be implemented without the huge expense associated with large-scale scientific or archaeological field surveys. An initial CLA analysis was incorporated into the Rhode Island Ocean Special Area Management Plan (SAMP). Although it was not funded to incorporate modern and pre-Contact indigenous landscapes, CLA yielded a significant and useful new understanding of Rhode Island's historic shipwrecks and associated properties.⁵⁶

D. Cultural Landscape Approach Recommendations

We recommend that national system partners:

11. Adopt a cultural landscape approach as a means to protect cultural heritage resources and advance ecosystem-based management of MPAs;
12. Develop best practices to bring together all available knowledge of cultural heritage resources, including the incorporation of tribal and indigenous sources; and
13. Apply the expanded definition of cultural heritage resources embodied in CLA, which includes the National Register of Historic Places criteria, to manage MPAs.

⁵⁶ Mather, I.R. and Jensen, John O. *Investigations into Block Island's Submerged Cultural Sites and Landscape for the Rhode Island Ocean Special Area Management Plan 2010*. Technical Report #5 in *Rhode Island Ocean SAMP Volume 2*. Adopted by the Rhode Island Coastal Resources Council October 19, 2010. Retrieved September 1, 2011 from: <http://seagrant.gso.uri.edu/oceansamp/documents.html>

The Cultural Heritage Resources Working Group was tasked with making recommendations to improve the comprehensive conservation of cultural heritage resources within the national system. The evaluation revealed what tribal and indigenous peoples from many places have known for generations: the human family is an integral part of and has special responsibilities to many ecosystems. Cultural heritage resources offer records of these relationships and carry with them lessons for the future based on the wisdom and mistakes of the past. We recommend CLA as a management framework because it offers the best available means to remember and learn from our past, and to understand human and natural influences on marine places and their ecosystems over time and into the future. This holistic approach integrates the complexities and power of contemporary science with historical, archaeological, and cultural knowledge and the human values of love of place. Adopting CLA strengthens our will and enhances our capacities to steward wisely the world we inhabit.

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Appendix A: November 2010 Recommendations of Marine Protected Areas Federal Advisory Committee on Cultural Heritage Resources in the National System of Marine Protected Areas

Marine Protected Areas Federal Advisory Committee November 2010 CULTURAL HERITAGE RESOURCES IN THE NATIONAL SYSTEM OF MARINE PROTECTED AREAS

Recommended Technical Corrections to Cultural Heritage Resources References in the Framework for the National System of Marine Protected Areas of the United States of America

In April 2010, the Committee recommended adopting an inclusive vision for the cultural heritage component of the National System of Marine Protected Areas, as well as a number of technical corrections to the “Framework for the National System of Marine Protected Areas of the United States of America.” To build upon these, the Committee now recommends the following additional technical corrections to the Framework for the National System of Marine Protected Areas of the United States of America. These recommendations emphasize that the national system should encompass, and can provide benefits to, cultural resources beyond those recognized by the National Register of Historic Places, including places, objects, and knowledge important to tribal and indigenous peoples. Additions are shown as underlined.

Modify MPA Eligibility Criteria for the National System (Framework, p. 17)

4. Cultural heritage MPAs must conform to criteria included in the National Register of Historic Places, or be considered important by Indian Tribes and tribal communities, Alaska Natives, Native Hawaiians, and Pacific Islanders, or have the potential to provide information important to understanding cultural and natural heritage.

Modify MPA Eligibility Criteria descriptions (Framework, p. 18-21)

(iv) Cultural Heritage Criteria

Cultural resources in the national system of MPAs must comply with one or more of the following criteria:

(a) National Register of Historic Places

Given the cultural resource management community’s widespread acknowledgement of the standards developed by the National Park Service for inclusion of a cultural resource in the National Register of Historic Places (NRHP), the national system will integrate core elements of those standards into its criteria for MPAs with cultural marine resources. As such, the cultural marine resources within those MPAs must be historic and defined as at least 50 years of age, unless otherwise determined to be unique to the nation’s maritime history or traditional connections to the sea as defined by the NRHP. In addition, the resources must meet the following NRHP evaluation criteria:

“The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess

integrity of location, design, setting, materials, workmanship, feeling, and association, and:

1. That are associated with events that have made a significant contribution to the broad patterns of our history; or
2. That are associated with the lives of significant persons in our past; or
3. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
4. That have yielded or may be likely to yield, information important in history or prehistory.”

(b) Tribal and Indigenous Area Designations

As identified by oral or written record, indigenous stories, knowledge, people, places, structures, objects, and traditional practices contribute to maintaining cultural identity and/or sustainable management of the environment. The national system will include cultural and natural marine resources that are recognized as important by tribal or indigenous peoples.

Some examples are, but not limited to:

1. Areas of cultural value or historic significance to tribes and indigenous peoples.
2. Traditional cultural properties, including areas of spiritual value.
3. Important Great Lakes and marine subsistence areas.
4. Important ceremonial sites and traditional activity sites.
5. Tribal usual and accustomed areas.
6. Other areas as determined important by tribal or indigenous peoples.

(c) Other Cultural Landscapes

A place where the intersection of culture and nature leaves a distinct ecological or cultural imprint, and which is imbued with lasting meaning by a particular group through contact, experience, and activities.

Modify Definitions of Key Terms in Glossary (Framework, p. 50-52)

Replace definition of **Cultural heritage**, as stated in the Framework, p. 50, which reads: The cultural resources that reflect the nation’s maritime history and traditional cultural connections to the sea, and the uses and values they provide to present and future generations.

With the following definition of **Cultural heritage**:

The legacy of physical evidence and intangible attributes of a group or society which is inherited and maintained in the present and bestowed for the benefit of future generations.

Replace definition of **[Marine] Cultural resource**, as stated in the Framework, p. 50, which reads:

A tangible entity that is valued by or significantly representative of a culture, or that contains significant information about a culture and the associated environment. Cultural resources for purposes of the MPA Executive Order are tangible entities at least 50 years in age that reflect the nation's maritime history and traditional cultural connections to the sea, such as archaeological sites, historic structures, shipwrecks, artifacts, and traditional cultural properties. Cultural resources are categorized as districts, sites, buildings, structures, and objects for the National Register of Historic Places, and as archaeological resources, cultural landscapes, structures, and ethnographic resources for MPA management purposes. Ethnographic resources include natural resources and sites with tribal or traditional cultural meaning, value and use.

With the following definition of **[Marine] Cultural resource**:

The broad array of stories, knowledge, people, places, structures, and objects, together with the associated environment, that contribute to the maintenance of cultural identity and/or reveal the historic and contemporary human interactions with an ecosystem.

Augment definition of **Tribe**, as stated in the Framework, p. 52, as follows:

A federally or state recognized American Indian or Alaska Native government, or any extant or historical tribe, band, nation, or other group or community of indigenous peoples in or associated with the United States of America.

Add definition of **Indigenous Peoples** to the Framework, p. 50:

Descendants of peoples who inhabited the area now encompassed by the United States and its territories at the time of Euro-American colonization, or the establishment of present political boundaries, and who retain some or all of their own social, economic, cultural and political institutions, irrespective of their legal status.

Add definition of **Cultural Landscape** to the Framework, p. 50:

A place where the intersection of culture and nature leave a distinct ecological or cultural imprint.

Appendix B: Strengthening the Cultural Heritage Resources Component in Coastal and Marine Spatial Planning (CMSP)

The MPA FAC has approved the following recommendations of the Coastal and Marine Spatial Planning (CMSP) Subcommittee,⁵⁷ regarding cultural heritage resources:

1. NOAA and DOI, where feasible, should propose a Cultural Landscape Approach to Regional Planning Bodies (RPBs) to integrate the human and natural aspects of marine areas into CMSP with the objective of more holistic management.
2. RPBs should take advantage of this opportunity to properly engage tribal and indigenous peoples, recognize and respect their historic rights and cultural values, and integrate their knowledge and local expertise into present-day planning.
3. The CMSP Strategic Action Plan (SAP) should include the identification and protection of ecologically and culturally important areas as a national objective.
4. CMS planners should respect the history, knowledge and needs of local communities, carefully consider their cultural heritage and identity, and use CMSP as one tool to protect regional stability for the future.
5. The cultural heritage and identity of local communities should be a key consideration of all CMSP discussions.
6. The CMSP SAP should include the following long-term human use objectives for regional CMS Plans: maintain and protect cultural diversity and communities, community economic vitality, and access to strategic national resources and critical infrastructure.
7. The CMSP SAP should incorporate an evaluation process into regional plans that retains citizen involvement and maintains public trust, and facilitate use of evaluation tools that incorporate biophysical, socio-economic, cultural and governance benefits, along the lines of the MPA FAC's National System Evaluation Planning Tool.
8. The National Marine Sanctuaries' Site Evaluation List (SEL) should be reactivated, per Action 7 of the Regional Ecosystem Protection and Restoration SAP Full Content Outline, and sites of national ecological or cultural significance should be added to the SEL.
9. Charge appropriate experts with reviewing Decision Support Tools (DSTs) and methodologies for identifying ecologically and culturally important areas and best practices for employing those tools and methodologies.
10. Recommend appropriate protocols and guidelines for identifying important ecological and cultural areas for RPBs to use in the development of regional CMS Plans based on the review discussed above.

⁵⁷ Recommendations for the Coastal and Marine Spatial Planning Process. Marine Protected Areas Federal Advisory Committee, September 2011.

List of Acronyms

ARPA	Archaeological Resources Protection Act
ASA	Abandoned Shipwreck Act
BOEM	Bureau of Ocean Energy Management
CHRWG	Cultural Heritage Resources Working Group
CLA	Cultural Landscape Approach
DOC	Department of Commerce
DOI	Department of the Interior
EO	Executive Order
FAC	Federal Advisory Committee
FS	U.S. Forest Service
FWS	U.S. Fish and Wildlife Service
ICOMOS	International Council On Monuments and Sites
IUCN	International Union for the Conservation of Nature
MHT	Maryland Historical Trust
MPA	Marine Protected Area
NHPA	National Historic Preservation Act
NMSA	National Marine Sanctuaries Act
NOAA	National Oceanic and Atmospheric Administration
NOP	National Ocean Policy
NPS	National Park Service
ONMS	Office of National Marine Sanctuaries
PMNM	Papahānaumokuākea Marine National Monument
SAMP	[Rhode Island] Ocean Special Area Management Plan
SMCA	Sunken Military Craft Act
TEK	Traditional Ecological Knowledge
UN	United Nations
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
USDA	U.S. Department of Agriculture

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ⁱ Participated in 2010 meeting in Suquamish, WA, among representatives of tribal and indigenous groups, a number of FAC members, the MPA Center, and other NOAA staff.

ⁱⁱ Participated in white paper writing team.