

AN EARTH LAW FRAMEWORK FOR MARINE PROTECTED AREAS

ADOPTING A HOLISTIC, SYSTEMS AND RIGHTS-
BASED APPROACH TO OCEAN GOVERNANCE

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A Letter from Earth Law Center

As the largest ecosystem on Earth, the ocean supports all life.

The ocean produces half of the world's oxygen, absorbs and sequesters one-third of the carbon dioxide human activities emit, provides protection from extreme weather events, and provides a source of food and livelihoods. In fact, 20 percent of the human population depends on the ocean for their primary source of protein, and over seven percent rely on the ocean for jobs and income.¹ Additionally, the ocean provides key medicinal components and treatments, such as the anticancer drug, Ara-C² and an enzyme to treat asthma.³ Being near and on the ocean is proven to boost human mental and physical health.⁴ In short, human life and well-being depend on the ocean (UNEP, 2011).⁵ An estimated 50-80 percent of all life on Earth is found in the ocean.⁶

Overfishing, climate change, and plastic pollution⁷ have left the ocean in a rapid state of decline and in imminent danger of losing its capacity to support life.⁸ Society uses marine environments in many ways including fishing, tourism, aquaculture, and energy production. As a result, sixty percent of the world's major marine ecosystems are degraded or used unsustainably, leading to a decline in marine biodiversity of 49 percent, roughly half of what it was 50 years ago.⁹

Marine protected areas (MPA) can help conserve and protect this vital ecosystem, and extending the current framework by incorporating principles of Earth Jurisprudence can allow the ocean to restore and regenerate itself. Expanding the current MPA framework means thinking "comprehensively in terms of the interconnectedness of effects."¹⁰ We must protect the ocean for its own benefit, and for the benefit of the Earth, not just for humans, and recognize both the rights of future generations and the rights of the ocean itself.

We call upon governments, stakeholders, managers and practitioners alike to evolve the current framework into one that recognizes the rights of all species and ecosystems, and properly places human life and activities equally within the principles of marine protected area governance.

We outline this framework within, with basic principles, approaches, and examples to illustrate the practicalities. The Earth Law Framework is intended as a guide for the creation and governance of marine protected areas, to help evolve and build upon our current framework so that we can live sustainably within the capacity of the Earth and ocean.

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OUR VISION

*A Future in which Humans and the Ocean
Flourish Together.*

The “Earth Law Framework for Marine Protected Areas” serves as a guideline for implementing an approach to marine protected area governance that allows humans to live within the ocean’s ecological limits. It calls for:

- A. The legal recognition of the marine protected area (the marine ecosystem and species within);
- B. The legal recognition of the rights of and values associated with the marine protected area;
- C. The appointment of guardians to represent the marine protected area’s Interests, i.e. “Office of the MPA”;
- D. The right for humans to speak on behalf of the marine protected area in legal matters;
- E. The application of legal rights in the existing governance system;
- F. All statutory functions to be carried out consistently with the Earth Law framework.

There exist *Eleven Guiding Principles of the Earth Law Framework for Marine Protected Areas*:

1. The Ocean has inherent rights – human rights depend on the ocean’s rights.
2. Our laws must place us within the capacity of natural laws.
3. To effectively protect and restore the ocean we must adopt a true “systems- approach.”
4. The ocean has intrinsic value and is not a resource.
5. Governance must aim to conserve and restore the ocean as the highest objective for management.
6. Ocean health is defined by the ocean’s own well-being and natural state rather than defined by its utility to humans.
7. Areas must be set aside to exist without human disturbance.
8. The protection process, and in particular managing offices, must be comprised of all stakeholders including the human representatives of the ocean itself.
9. We have a collective responsibility and right to respect and protect the ocean, and we are allowed to exercise that right.
10. The ocean is a complex interconnection of systems and processes and the absence of concrete information should not prevent protective and restorative action.
11. Cetaceans have intrinsic value as species in themselves and play an important role in conserving the ocean.

I. Marine Protected Areas

Marine protected areas, analogous to national parks, have expanded to over 5,000 to date,¹¹ covering four percent of the ocean.¹² The International Union for the Conservation of Nature (IUCN) defines a marine protected area (MPA) as: “A clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.” Even though definitions of MPAs are not globally uniform, they all tend to share the same aims of protecting biodiversity, cultural heritage, and sustainable livelihoods (see Appendix A).

The shared conceptual framework of MPAs helps focus national and international efforts to halt ocean decline. As part of the 2011 Convention on Biological Diversity Aichi Targets, 193 countries agreed to “effectively and equitably” manage 10 percent of coastal and marine areas within MPAs and “other effective area-based conservation measures” by 2020.¹³ A 10 percent conservation target for MPAs is also included within Goal 14 of the United Nations Sustainable Development Goals (SDGs).¹⁴

By managing human activity in defined areas, MPAs offer an opportunity to address the suite of threats to ocean health including overfishing, pollution, vessel traffic and noise, and oil and mineral extraction. Focused management of MPAs deliver several benefits:¹⁵ increasing biomass (size) and biodiversity (number of species), increasing ecosystem capacity to withstand stress and change, protecting cultures that rely on subsistence fishing, boosting local economies through tourism and scientific advances, and helping commerce and leisure by increasing and perpetuating fish populations.¹⁶ In fact, the net benefits (social, cultural, economic and ecological) far exceed the costs (start-up, operating, congestion and opportunity) by a magnitude of 3.17-19.77.¹⁷ For example, fish populations of Apo Island in the Philippines have tripled since the MPA was created, leading to a 50 percent increase in catch per unit of effort for fishermen.¹⁸

Limitations of marine protected areas

Despite the best intentions,¹⁹ attention sometimes falls away after the creation of an MPA, resulting in paper parks. Formally designated but not implemented in practice, paper parks fail to achieve conservation of marine ecosystems.²⁰ This can result from a lack of community consultation (and thus support), a lack of funding, a lack of supporting legal, institutional and policy frameworks, and/or local coastal populations having limited livelihood alternatives.²¹

A study in *Nature* found that over a quarter of the 433 MPAs evaluated did not provide protective benefit, suggesting the insufficiency of only designating a region or species as protected.²² The study found that of those with management plans, approximately 50 percent were not being implemented²³ due to barriers including lack of governmental will; lack of clear objectives (including a primary aim of conservation); lack of consistent framework, data and funding; and the existence of commercial opposition.²⁴

II. Enhancing Marine Protected Area Effectiveness

A unifying thread behind an effective MPA is the existence of an effective framework, or legal structure, providing the basis for “protection and enforcement of rights and responsibilities.”²⁵ The management principles and guidelines embedded within the ecosystem-based management (EBM) and cultural landscape approach has largely guided the current, and constantly evolving, legal framework for marine protection.²⁶

EBM requires that humans consider the cumulative impacts and links among living and nonliving resources, and regard human activities “within the context of the broader ecological and physical environment.”²⁷ The cultural landscape approach provides “an analytical framework to understand places and their associated resources” as well as “human connections to MPAs” and “the important human influences on marine ecosystems over time.”²⁸ Together these frameworks aim to balance social and cultural needs with ecological health and economic development.²⁹

Often proposed as a way to achieve sustainable and optimal use of marine resources (i.e., human benefit and needs), MPAs sometimes miss their true purpose to protect and restore ecosystems and their natural processes. Rather than protecting ecosystems and biodiversity, MPAs sometimes function merely as a tool for managing fisheries resources or protecting cultural sites.³⁰ The current framework takes an important step by acknowledging the human relationship with the ocean and the complex interactions that exist within each ecosystem, but further enhancing MPA effectiveness requires prioritizing the ocean’s needs over human ones.

An Earth-system approach as the solution

The interconnectedness of all life to the ocean means a systems approach becomes the most effective means for planning and managing MPAs. A systems approach goes beyond EBM by taking into account the physical and chemical interactions within and between the protected area and adjacent and nearby ecosystems. A cumulative rather than isolated assessment of human activities and impacts on marine life also represents a systems-based approach, and aims to effectively protect and restore ocean health.³¹ In fact, “protective action in the MPA may be futile” if pollution from land is not managed.³²

A systems approach also takes into account both the present and future. Future generations have the same rights as the present one. When activities “have the potential to cause irreversible environmental damage that permanently reduces the welfare of future generations,” rights of future generations must take precedence over desires of the present. A true systems approach also integrates social, cultural, political, ecological and economic dimensions with equity and complementarity.³³

An Earth-systems approach extends the traditional methods of “resource” management³⁴ to provide a clear legal mandate for managing protected areas as part of a system,³⁵ and as part of the whole that also includes humans. In the words of Peters (quoted in Dobbin, 1976), “Shall

we have piecemeal systems-based on random components that escalate us toward incompetence? Or shall we have a systems approach that utilizes our total knowledge ... to integrate our social and humanistic goals with our technological achievements and ecological needs? If we choose the latter, man's greatest age of achievement lies ahead."³⁶

III. The Earth Law Framework Advances Marine Protection

We can ensure effective management and protection of marine areas by evolving the framework we choose to deploy. This ultimately requires us to change our worldview and values, because our values shape the framework, and in turn determine the level of human activity regulation. The current framework largely values the ocean as a resource, and considers humans as separate from the system. Anthropocentric rules result, and we manage our activities by what benefits humans, rather than what benefits the ocean and Earth as a whole (see Appendix C, Part A).

Earth Law provides a legal framework and overarching governance principle with a holistic and Earth-centered approach. Earth Law recognizes the interconnectedness of all life and it values nature for its intrinsic worth. Consequently, law and policies created within the Earth Law Framework focus on preserving the integrity of all Earth's systems and processes, to ensure all species and ecosystems thrive, including humans.

This global movement for Rights of Nature (see Appendix D) offers a new approach to protecting and restoring ocean health. By recognizing legal rights for MPAs, we move beyond the traditional model of perpetual economic growth and development, linear progress, and a mechanistic worldview consisting of separate parts.

The Earth Law Framework manages our activities at a level that respects the basic rights and needs of all species, and ecosystems, including humans. Legal rights for MPAs would mean:

- Humans create a sustainable relationship with the ecosystem and the species within it.
- Protection and restoration is a legal responsibility.
- Management boards, or "guardians," ensure that activities do not violate the oceans' rights.

This perspective is holistic, risk-averse, and adaptive, and questions key assumptions, no matter how basic.³⁷ Earth Law represents the next step in the continuing evolution of MPA governance.

IV. An Earth Law Framework for Marine Protected Areas

Building on the current legal framework specifications (Appendix C, Part B) and principles (Appendix C, Part C), the Earth Law Framework prioritizes the legal recognition of the marine protected area for MPA governance.

An Earth Law Framework for Marine Protected Areas calls for:

- A. the legal recognition of the marine protected area (the marine ecosystem and species within);
 - B. the legal recognition of the rights of and values associated with the marine protected area;
 - C. the appointment of guardians to represent the marine protected area's Interests, i.e. "Office of the MPA";
 - D. the right for humans to speak on behalf of the marine protected area in legal matters;
 - E. the application of legal rights in the existing governance system;
 - F. all statutory functions to be carried out consistently with the Earth Law Framework.
- A. The Legal Recognition of the Marine Protected Area (the marine ecosystem and species within);

Varying constitutions and ordinances around the world recognize the Rights of Nature. And ecosystems around the world are gaining "legal personhood" status – that is, the same legal rights as a juristic person. They include the Te Urewera National Park and Whanganui River in New Zealand, the Himalayas, and Ganges and Yamuna Rivers in India, and the Atrato River in Colombia.

The Himalayas recently received legal personhood in a ruling by the High Court of Uttarakhand. The ruling declared that "the Glaciers including Yamunotri, rivers, streams, rivulets, lakes, air, meadows, dales, jungles, forests, wetlands, grasslands, springs and waterfalls" are a legal entity "having the status of a legal person, with all corresponding rights, duties and liabilities of a living person, in order to preserve and conserve them. They are also accorded the rights akin to fundamental rights/legal rights."³⁸ The ruling also found that "any person causing any injury and harm, intentionally or unintentionally to the Himalayas...is liable to be proceeded against under" any applicable law.³⁹ As a result, humans are bound to promote the health and well-being of the ecosystem.

While this concept has been applied to national parks and rivers, marine ecosystems have not yet achieved the same legal recognition. Defining in law the MPA as a legal entity means recognizing the marine area as a living whole, an entity comprised of all of its regions and zones, systems and cycles, species (plants, microorganisms and animals) and biotic and abiotic components. The marine area would then be entitled to all "the rights, powers, duties, and liabilities of a legal person."⁴⁰

Defining the marine area as a legal entity requires humans to recognize, respect and protect its rights; provides for prompt and full restoration; and prohibits activities that will violate the marine area's rights. This essential element of the Earth Law Framework allows for the transformation of the current worldview. Legal rights for the ocean represents a breakthrough, a paradigm shift and a pathway to restoring ocean health.

B. The Legal Recognition of the Rights of and Values Associated with the Marine Protected Area

Disagreement over rights and rules commonly causes non-compliance for governance of MPAs.⁴¹ As such, the foundational component of an Earth Law Framework calls not only for the establishment of rights, but for the legal recognition of the marine protected area's rights. Just as humans have inherent rights for being on Earth, so too do species and ecosystems.

In 2010, the People's Conference on Climate Change and the Rights of Mother Earth met in Cochabamba, Bolivia. Over 35,000 people participated from around the world and drafted the Universal Declaration of the Rights of Mother Earth (UDRME) (see Appendix B). The UDRME was presented to the United Nations General Assembly in 2011. We draw upon the UDRME and other Rights of Nature precedents to create the inherent rights of marine protected areas, and by extension, the rights of the ocean (see Box 1).

In addition to recognizing the MPA's rights, the Framework calls for the recognition of the values associated with the MPA, because as stated above, these values help shape the rules. While every MPA shall be entitled to the same inherent rights, the intrinsic values will vary among ecosystems. It is important to identify the unique values and components of the ecosystem to create the best-match objectives for protection, and the prioritization of objectives that guide management decisions. Values can relate to: ecological (species, habitats, and ecosystems); cultural and historical heritage; and recreational values.

For example, after declaring the Whanganui River a legal entity and living and indivisible whole, the Te Awa Tupua (Whanganui River Claims Settlement) Act 2017, provides for "the legal recognition and effect of" the Whanganui River, and defines the intrinsic values of the River.⁴² The Act values the River as "the source of spiritual and physical sustenance" and as an entity that "sustains both the life and natural resources within the Whanganui River and the health and well-being of the iwi, hapū, and other communities of the River."⁴³ The Act then requires that any person exercising a function under another identified law must recognize and have regard to not only the legal status of the River, but its intrinsic values.⁴⁴

If such provisions were to be included in the MPA framework, managing bodies would be legally required to act in the interests of the MPA and consistently with its value. If we were to value an MPA for its biodiversity, our actions would guide us towards protecting that biodiversity. If regulations do not protect biodiversity, such actions could be challenged in court and corrected. An MPA's intrinsic value becomes a determining factor in decision making, contributing to an area that is better managed, protected and restored.

Box 1. The ocean, as a legal entity, has the following rights:

- **To life:** The right to maintain the integrity of living systems and natural processes that sustain the ocean and Earth as a whole, and capacities and conditions for regeneration. All species of the ocean, plants, animals and microorganisms, have the right to life. The right to have critical and significant areas set aside for the continuation of cycles and processes where no human activity may occur (no take zones). The ocean has a right to live in perpetuity, and for humans to ensure that the pursuit of human well-being contributes to the wellbeing of the ocean now and into the future.
- **To health and well-being:** Where health is defined in terms of the ocean's own well-being and in relation to its natural state. The right to live free from torture or cruel treatment by human beings and to exist in its natural state and habitat. The right to be free from contamination, pollution (including noise and plastic) and toxic or radioactive waste.
- **To the diversity of life:** The ocean has the right to biodiversity and to evolve. It is the right to the differentiation and variety of beings that make up the ocean, without them being genetically altered or structurally modified in an artificial way, so that their existence, functioning or future potential would be threatened.
- **To water:** The right to water as a source of life. The right to preserve the functionality of the water cycle, its existence in the quantity and quality needed to sustain living and nonliving systems, and its protection from pollution for the reproduction of the life of the ocean and all its components. This includes the right to maintain ocean temperature and chemical composition (carbon dioxide proportions) at a level which the right to not threaten the ocean's integrity or vital and healthy functioning.
- **To clean air:** The right to preserve the quality and composition of air, and the functionality of the carbon cycle, for sustaining living and nonliving systems and its protection from pollution, for the reproduction of the life of the ocean and all its components.
- **To equilibrium:** The right to maintenance or restoration of the interrelationship, interdependence, complementarity and functionality of the components of the ocean in a balanced way for the continuation of its vital cycles and processes. The ocean has a right to live in harmony with humans and exhibit normal form and function.
- **To restoration:** The right to timely and full restoration of impacts by direct or indirect human activities.
- **To representation:** The right to recognition everywhere before the law and before any decisions or activities, which may impact the ocean and its rights.

Transforming our view of the ocean: from resource to a life-giving partner

Humanity's assumptions that they can do what they like, without restriction, with the ocean have resulted in damage to ocean ecosystems along with loss of capital investment and related socio-economic impacts. It is reasonable to posit that changing our assumptions will correct the impacts. If we change how we view nature (ecosystems and species) from a resource (see Appendix C, Part A) and property that we own, to a legal entity that no one owns with its own intrinsic rights, then we can correct the global problems that have resulted from our false assumptions of the web of life and law.

Valuing fish as property encourages the 'tragedy of the commons,' the overexploitation of a shared resource by all users acting according to their own self-interests,⁴⁵ to run rampant in the ocean; fueling competition based on the belief that "fish are not owned until caught."⁴⁶ Defining an ecosystem as a fisheries and a resource, reinforces and legalizes the human-centered approach that has continually polluted and degraded the ocean. To stop, not just slow, ocean degradation, a paradigm shift in how we view the ocean and fish in particular is required. We must move from seeing fish as a "resource" "Stock" or "fishery" to seeing fish as "populations" "species" and "co-inhabitants of Earth" (see Appendix C, Part A).

For example, the United States National Marine Sanctuary Act allows Congress or the Secretary of Commerce to "designate a sanctuary if the area is of 'special national significance' due to its resources or human-use values."⁴⁷ This prevents us from declaring a sanctuary for pure ecological reasons. In fact, the Act's focus on "multiple-use of designated areas" was created with the intent to "guard against ecology for the sake of ecology."⁴⁸ The Act and its intent to enhance biodiversity⁴⁹ faces limitations by viewing the ocean as a resource. Such an approach "complicates preservation of intact ocean ecosystems...and undermines the biodiversity and integrity of marine protected areas."⁵⁰

Instead of monetizing MPAs for their "ecosystem services," we value MPAs for their critical existence as a component of an intact ecosystem.⁵¹ This transformed view offers tremendous potential in its application toward MPA governance. By shifting how we think about the ocean, we no longer base our decisions and allowable activities on a short-term cost-benefit analysis with a single-minded focus on profit and Gross Domestic Product (GDP). Instead, we make decisions based on what provides the highest benefit and which meets the needs of all Earth's beings and communities.

Defining 'health' as it pertains to the marine protected area's needs appropriately defines the objectives for protection

Unless the highest objective is explicitly defined to conserve the MPA in (as close to) its natural state as possible, MPAs will struggle to live up to their name. Protecting and restoring the ecosystem for its own benefit can occur only if conservation objectives are prioritized over human-centered objectives, such as economic development (see Appendix C, Part A). Legislation must state "explicitly that conservation is the primary objective of the MPA."

Secondary objectives can include tourism, fisheries, recreation, education and scientific research, but these must also be explicitly defined as secondary objectives.”⁵²

After aligning on the highest objectives, developing and using a definition of health based on the ecosystem’s own needs and natural state can help us to manage human activities in a way that allows us to achieve the objectives of designation. Scientists present such a definition using an ecosystem’s “normal form and function” which manages human activities at levels that ensure the ocean can “enjoy sufficient, continued organization, vigor and resilience to evolve and perpetuate as natural systems within the context of their natural life spans.”⁵³ This shifts our approach to aim for populations and ecosystems that are thriving and healthy, rather than preventing degradation and extinction.

For example, the Endangered Species Act of the United States implicitly grants species with the right to life, by creating a listing and protection process to prevent them from becoming threatened or extinct.⁵⁴ The proposed Earth Law Framework would take this a step further by requiring that all species be maintained at their natural carrying capacities, and if they were not, then they would be listed. We would legally be required to undertake more, and more effective protective and restorative activities for species.⁵⁵

Without explicitly defining a state of health outside human utility, the objectives of MPAs cannot be sure to meet the needs of marine ecosystems for sustainable health.⁵⁶ The Earth Law Framework provides a means to meet “that the broader environmental goal” of a healthy and thriving ocean⁵⁷ (see Appendix C Part A).

Protecting the marine protected area’s rights protects human rights

The impacts of declining marine biodiversity implicate many potential violations of human rights recognized by the Universal Declaration of Human Rights (UDHR), including the right to life, liberty and security of person [Art. 3] and of indigenous rights recognized by the Universal Declaration on the Rights of Indigenous Peoples (UNDRIP), including the rights to maintain their cultural traditions and spiritual relationship with ... coastal seas [Art. 11 and 25] among many others (see Appendix E).

Violating the rights of the ocean, such as through overfishing, “leads to a classic ‘lose-lose’ system where ecosystems, economies and the social well-being of people are all negatively affected.”⁵⁸ Human well-being depends on a healthy environment, including a healthy ocean. Humans cannot exploit an empty ocean nor survive without it. Studies confirm marine protected areas can alleviate poverty. By “preserving the quality of marine life” MPAs in Fiji, Indonesia, Solomon Islands and the Philippines, also led to improved fish catches (food), new jobs (mostly in tourism), stronger local governance, health benefits (entrance fees used to fund public utilities) and benefits to women (through empowerment and new alternatives).⁵⁹

C. Appointment of Guardians to Represent the Marine Protected Area's Interests, i.e. "Office of the MPA"

A statutorily designated managing body comprised of government, local community and interest groups, not only brings together stakeholders, but ensures a better mutual understanding of different user values. Involving all stakeholders in governing the MPA ensures compliance and effective regulations by taking into account the expected effects of decisions on all users and the measures needed to mitigate those effects. The Earth Law Framework takes the representation notion one step further, by requiring the MPA to have a voice in decisions, carried forth by "guardians" or "trustees." (The notion of trustees for the environment is not new, see Appendix G, Part B).

A marine protected area office for management would consist of local and indigenous peoples, government officials, scientists, and the various users of the area. Most importantly, the Office would consist of guardians of the marine ecosystem and represent its interests. Per the precedent set by New Zealand law (see Appendix G, Part A), guardians have a legal responsibility to protect and act on behalf of the marine ecosystem.

Guardians for the ocean can participate in any legal process affecting the ecosystem (particularly "appearing before national legislative and rule-making bodies to help clarify ocean impacts of proposed actions"), develop or review any relevant guidelines, monitor the health of the ocean, monitor compliance with applicable laws and treaties, and represent the ecosystem in disputes. The guardians have "standing" on behalf of the MPA.⁶⁰

Guardians ensure we adopt a precautionary and system's approach

Applying the precautionary approach to not only management decisions, but the entirety of the MPA designation and implementation process, provides a way to create consistency within the Earth Law Framework. It must "be [explicitly] recognized that uncertainty is a fundamental part of working with ecosystems."⁶¹ Decisions must be made on the best available data, and whenever a significant amount of uncertainty exists, actions must be precautionary ("when in doubt, err on the side of conservation"⁶²) to ensure the long-term health of marine species and ecosystems. The Framework also requires that the "burden of proof for showing that there are no unacceptable ecosystem risks or impacts rest with the industry"⁶³ or group pursuing the activity, rather than the managing body prove the potential existence of impacts.⁶⁴

The Office of the MPA, comprised of guardians, would determine activities, such as the allowance and extent of fishing, with a systems approach and based on the highest environmental and human needs.

This framework in the context of marine protected areas requires that there is:

- 1) a determination of impacts;

- 2) a determination of whether the impacts violate the MPAs rights, and if so to what extent;
- 3) a determination of the alternatives and their impacts;
- 4) the alternative which fulfills the highest environmental and human needs is chosen, outside economic consideration.

D. The Right for Humans to Speak on Behalf of the Marine Protected Area in Legal Matters

A roadblock to effective enforcement of environmental laws, is the issue of standing in pursuing judicial and restorative action. Standing is a legal right to bring a lawsuit to court in which the ruling addresses the injury or harm to, or dispute of the entity filing the suit.⁶⁵ In our current system, humans can only sue on behalf of the environment if they themselves can demonstrate injury or harm to their individual lives. The Endangered Species Act of the United States is one such example where citizens are authorized to enforce the ESA, “to enjoin any person, including the United States...who is alleged to be in violation of any provision...or regulation issued” under the ESA.⁶⁶ However, citizens must be “adversely affected by the violation” in order to enforce compliance in court.⁶⁷

To enforce environmental laws to the full extent, individuals and communities must have the right to sue and speak on behalf of the environment (see Appendix G). In addition to enacting guardianship, the Earth Law Framework provides citizens with the right to uphold the MPA’s rights. Hardly a new concept, the citizen suit provision allows citizens to bring environmental destruction and lack of compliance to the attention of the managing body and judicial system.

Giving people the right to protect the rights of marine protected areas means:

- Citizens can seek injunctive relief from harmful activities such as oil spills, overfishing, plastic pollution etc. not only for funds to be applied toward restoration but for a change in behavior. Required injunctive relief could be stricter fishing quotas or moratoriums on taking species if the level or way of hunting is violating the species’ rights, bans on the production of plastic material, the development of technologies to reduce the flow of waste from land to sea, and the transfer of government funds and subsidies from extractive activities toward sustainable and renewable solutions (solar investment rather than offshore drilling). For examples of citizen suits on behalf of nature in action, see Appendix H;
- Citizens can press for government action if a protected area is not being implemented, reducing the phenomenon of paper parks;
- Human communities can express and fulfill our collective responsibility to recognize and protect nature’s rights and to ensure that the Earth exists in a healthy state; and
- Humans can speak on behalf of the marine ecosystem and species within, when they believe the rights of the MPA are being violated.

Allowing citizens to sue on behalf of nature in Ecuador has proven an effective means to protect and restore nature. Citizens were able to present a case for an injunction in defense of the Vilcabamba River, when its rights were violated in a road-widening project. The Court ruled on the side of the River, requiring immediate and full restoration. A prior ruling “denying the protection action for lack of legitimacy of the case for presumably not having legal standing”⁶⁸ was found not conforming to the law, as Ecuador’s Constitution states “All persons, communities, peoples and nations can call upon public authorities to enforce the Rights of Nature.”⁶⁹

E. The Application of Legal Rights in the Existing Governance System

As is the case when any new law is enacted, the framework must define how the law fits within the existing legal context. The Earth Law Framework will affect the governments and local authorities involved, the indigenous and local communities, and third parties “in terms of how the existing statutory framework for decision making is implemented.”⁷⁰ It is intended to evolve and “complement, rather than override, existing legislation...in other words, the existing statutory frameworks for decision making remain in place, but will be influenced by the ‘lens’ provided.”⁷¹ The Earth Law ‘lens’ for marine protected areas changes how we view and understand the ecosystem and species. It requires that all decisions, powers and functions that involve or may affect the MPA take into account its inherent rights and adopt an Earth-systems approach.

For example in the United States, if a lease sale is being considered for offshore drilling, the Bureau of Ocean Energy Management (BOEM) follows the Outer Continental Shelf Lands Act (OCSLA) for “implementing regulations that establish the mechanics of the leasing process.”⁷² The Director of BOEM must consider nominations for potential lease areas by performing an environmental impact analysis under the National Environmental Protection Act (NEPA), which identifies the impacts and alternatives.⁷³ Therefore, a marine protected area in the United States granted legal rights would statutorily define OCSLA and NEPA, among others, as Acts to which the Earth Law Framework applies. In particular, the framework may provide that the MPA be identified as “an expression of interest in lease areas” for the purpose of 30 C.F.R. §§556.23, 556.25, because the Director of BOEM must consider such interests when preparing the NEPA analysis. Similarly, the framework may provide that the MPA be identified as a “person consulted” when determining “whether or not a federal action has the potential to cause significant environmental effects” as provided for by NEPA.⁷⁴ As a result, the Earth Law Framework provides for effective management and protection by requiring the Earth Law lens to consider the entire system, namely the ecosystem itself, in all decisions that may affect the system’s health and well-being.

Additionally, as stated above, legal rights will affect the enforcement process by giving the MPA standing to sue. For example, the U.S. Marine Mammal Protection Act (MMPA) provides for a strict prohibition on the taking of marine mammals within national waters except when permissible by permit. It provides that “any party opposed to such permit, may obtain judicial review of the terms and conditions of any permit issued by the Secretary...”⁷⁵ Therefore, if this

permit was being considered in a marine protected area, the marine mammals could then be considered a party opposed to such a permit and humans could express this interest on their behalf.⁷⁶

F. All Statutory Functions to be Carried Out Consistently with the Earth Law Framework

The Encyclopedia Britannica defines “natural law” as a system of right or justice held to be common to all humans and derived from nature rather than from the rules of society. Codifying legal rights for nature in our governance systems correctly places human law within the constraints of natural law, and the economic system within the constraint of natural systems. It requires us to take into account those ecological functions that we cannot monetize that are essential for human society and ecosystem vitality.⁷⁷ Accordingly, the Earth Law Framework requires human laws and systems to respect and function within natural laws and systems.

The Earth Law Framework helps ensure MPA management decisions embody an “understanding of the structure and dynamics of the natural system and of the constraints presented by that system and by natural laws, and then provide feedback to regulate economic systems within those constraints. Because the finite limits to resource-use are based on natural laws, not human, law, and since exceeding those limits will eventually lead to catastrophic effects on both ecological and economic systems, they must be identified clearly.”⁷⁸

By providing such a provision in legal decrees that define or manage the area, we work within the constraints of natural law: fundamental physical laws and biological dynamics constrain human institutions and desires, not the reverse.⁷⁹

V. Applying the Earth Law Framework for Marine Protected Areas

In addition to the current legal framework specifications (see Appendix C, Part B) and principles (see Appendix C, Part C), the Earth Law Framework adds the legal recognition of the marine protected area to be foremost and priority in MPA governance. A marine protected area as a legal entity requires the responsibilities, management options, restrictions, and basis for protection and enforcement to be carried out consistently with the Earth Law Framework. It therefore, allows for a true systems-based approach with objectives and rules that aim for restoring and protecting ecosystems and their natural processes outside human utility and benefit.

We provide 11 guiding principles to apply throughout the decision making process to ensure all statutory functions are carried out consistently within the Earth Law Framework.

1. The Ocean has inherent rights and human rights depend on the ocean’s rights.
2. Our laws must place us within the capacity of natural laws.

3. To effectively protect and restore the ocean we must adopt a true “systems-approach.”
4. The ocean has intrinsic value and is not a resource.
5. Governance must aim to conserve and restore the ocean as the highest objective for management.
6. Ocean health is defined by the ocean’s own well-being and natural state rather than defined by its utility to humans.
7. Areas must be set aside to exist without human disturbance.
8. The protection process, and in particular managing offices, must be comprised of all stakeholders including the human representatives of the ocean itself.
9. We have a collective responsibility and right to respect and protect the ocean, and we are allowed to exercise that right.
10. The ocean is a complex interconnection of systems and processes and the absence of concrete information should not prevent protective and restorative action.
11. Cetaceans have intrinsic value as species in themselves and play an important role in conserving the ocean (see Box 2).⁸⁰

Box 2. The Rights of Cetaceans

“There is an ethical consideration that all animals have a fundamental right to healthy habitat... [that] underpins for many the drive for whale conservation and marine protected areas.”

Cetacean habitat serves as a starting point when designating marine protected area boundaries and zones. Critical habitat for cetaceans, the areas that cetaceans use to feed, mate, reproduce and socialize, as well as the areas that protect essential ecosystem functions and the habitat that cetacean prey depend upon, are important to include in a marine protected area and may serve as areas for no-take. Also, the visibility of cetaceans provides a relatively effective way to gain the necessary information and data needed for designation and planning of marine protected areas, and successful ocean conservation in general.

Moreover, cetaceans are highly intelligent and sentient beings. They experience emotions, have a sense of self-identify, and communicate as cultural beings. Cetaceans possess rights of their own, which are recognized when employing the Earth Law framework for MPAs.

Recognizing cetacean rights means:

- Regulating tourism and shipping traffic to have minimal effect on these species
- Prohibiting extraction or take in their critical habitat
- Maintaining population levels according to their natural capacity
- Making illegal activities that market or commercialize these species

Source: Adapted from Hoyt (2011), [Whale and Dolphin Conservation](#), [ABC Science](#) and [One Green Planet](#)

In sum, incorporating the Earth Law Framework into the current MPA framework would provide for (among other components of the current legal framework):

A definition of the term “MPA”

- The *Marine Protected Area* is a legal entity, and has all the rights, powers, duties, and liabilities of a legal person. The *MPA* has “an identity in and of itself, inspiring people to commit to its care.”⁸¹

Basic description of the MPA and values

- We recognize the *MPA* as a place of outstanding national value and intrinsic worth; treasured by all for the distinctive natural values of its vast seas and species within, “and for the integrity of those values; for its indigenous ecological systems and biodiversity, its historical and cultural heritage, its scientific importance, and as a place for outdoor recreation and spiritual reflection.”⁸²

Authorities in charge, criteria and process for decision making

- The rights, powers, and duties of the *MPA* must be exercised and performed on behalf of, and in the name of, *MPA*—(i) by the *MPA* Board; and (b) the liabilities are the responsibility of the *MPA* Board
- All decisions and activities are determined with respect to the *MPA*’s rights
- All persons and communities can call upon the government and authorities to enforce the rights of the *MPA*

Preliminary guidance regarding responsibilities to protect the MPA

- As put forth in the Eleven principles for Earth Law based governance above

Rules, penalties and enforcement

- Management of the *MPA* will be undertaken in a manner that gives effect to the principles of the Earth Law Framework

Objectives

- To first and foremost preserve the marine system in as far as possible to its natural state and to retain the natural character of the *MPA* as an area with significant and unique natural values.

Zoning plan

- Recognizes and considers the rights of cetaceans
- Fully protects core areas through strict prohibition on all human activities and impacts
- Driven by precautionary and best scientific information

Monitoring and performance criteria for monitoring toward objectives and effectiveness of management plan

- Based on the ocean’s normal form and function, and health as it pertains to the intrinsic values and needs of the *MPA*

Examples of the Framework in action can be seen in Ecuador and New Zealand

- a. Article Three of the Special Law of the Galapagos outlines principles for governing the islands. These include: “An equilibrium among the society, the economy, and nature;

cautionary measures to limit risks; respect for the rights of nature; restoration in cases of damage; and citizen participation.” The Special Law on the Galapagos proposes a holistic management plan that recognizes the natural processes of ecosystems and the interactions between local communities and terrestrial and marine areas as well as the key threats of human interference (see Appendix F Part A).

- b. Under the Tutohu Whakatupua Treaty Agreement, the Whanganui River in New Zealand is given legal status under the name Te Awa Tupua. Te Awa Tupua is recognized as “an indivisible and living whole” and “declared to be a legal person.” The Whanganui River Claims Settlement Act of 2017⁸³ “sets out the component elements of the framework, including the legal recognition of Te Awa Tupua, the establishment of Te Pou Tupua [the guardian board]” and “states the relevance of Te Pā Auroa nā Te Awa Tupua (the framework) in the existing legal context, and requires interpretation of the framework in a way that best furthers the relevant agreements in the deed of settlement. It also requires statutory functions to be carried out consistently with the purpose of the legislation under which the functions are carried out” (see Appendix F, Part B).

VI. Conclusion

All life on the planet depends on the stability of the ocean’s ecological communities. However, ocean ecological stability faces multiple threats from direct human activity such as fishing to far-reaching environmental challenges like climate change and habitat destruction. The ocean needs humans to transform their perspective. The proposed solution is a paradigm shift in law to grant ecological communities rights and protections.

We can no longer treat the ocean as a limitless resource that we are not dependent on. We must fundamentally change our relationship with nature and the legal system we function within. The framework presented is intended to serve as a guideline for implementing an approach to marine protected area governance that allows humans to live within the ocean’s ecological limits. The ocean cannot take a human-centered approach much longer. The ocean, needs us to transform our governance systems, to recognize that nature has inherent rights to live, thrive and evolve, and to acknowledge that humans have a responsibility to respect and protect those rights. Now is not the time for business as usual. Join the movement to recognize and protect the ocean’s rights.

*“Life itself arose from the oceans.”⁸⁴
To protect life – we must protect the ocean.*

Appendix A: Varying Definitions of and within Marine Protected Areas

Uniform multiple-use MPAs	MPAs or zones with a consistent level of protection, allowable activities or restrictions throughout the protected area. Extractive uses may be restricted for natural or cultural resources. ⁸⁵
Zoned multiple-use MPAs	Some extractive activities throughout the entire site are allowed. Marine zoning is used to allocate specific uses to compatible places or times in order to reduce user conflicts and adverse impacts. ⁸⁶
Zoned multiple-use with no-take areas	Multiple-use MPAs. They contain at least one legally established management zone in which all resource extraction is prohibited. ⁸⁷
No-impact MPA	MPAs or zones that allow human access, but prohibits all activities that could harm the site's resources or disrupt the ecological and cultural services they provide. Examples of activities typically prohibited in no-impact MPAs include resource extraction of any kind (fishing, collecting, or mining), discharge of pollutants, disposal or installation of materials and alteration or disturbance of submerged cultural resources, biological assemblages, ecological interactions, physiochemical environmental features, protected habitats, or the natural processes that support them. ⁸⁸
No access MPA	MPAs or zones that restrict all human access to the area in order to prevent potential ecological disturbance, unless specifically permitted for designated special uses such as research, monitoring or restoration. ⁸⁹
Marine reserves	<p>Often called no-take MPAs. Activities that remove animals or plants or that alter habitats are completely prohibited, unless needed for scientific monitoring. This means that fishing, aquaculture, dredging and mining is not allowed within these special MPAs. On the other hand, swimming, boating and scuba diving are usually allowed.⁹⁰ Since Marine reserves fully protect habitats they often produce very different results than an ordinary MPA. The reserves alone cannot address the problems such as pollutions and climate change but need to be complemented by other management strategies. Nevertheless, it is important to understand the effects of marine reserves as well as how to implement them more effectively.</p> <p>In short, an MPA where it is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource.⁹¹</p>

European marine sites	<p>Special areas of conservation (required by law under the European Habitats Directive) and Special protection areas (required by law under the European Wild Birds Directive). Together they make a Europe wide network of protected areas called the Natura 2000 network.</p> <p>European Marine Sites protect the specific species and habitats that are listed in the European legislation. Sites are managed to protect the designated features from any damaging activities, only restricting activities where it cannot be proved that they will not have an adverse effect.⁹²</p>
Marine sanctuaries	A general type of MPA where there are limits on human activity. Sanctuaries vary in the types and levels of activity they allow. ⁹³
Marine conservation zones	A special English type of MPA. MCZs protect nationally important marine wildlife, habitats, geology and they can be designed anywhere in English and Welsh inshore and offshore waters. Sites are selected to protect rare, threatened as well as the range of marine wildlife. Social and economic factors are taken into account when identifying new sites, which is not the case with general MPAs. ⁹⁴
Ramsar sites	<p>Designated under the convention on Wetlands of International Importance 1971. Includes "areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres".</p> <p>Wetlands "may incorporate riparian and coastal zones adjacent to the wetlands, and islands or bodies of marine water deeper than six metres at low tide lying within the wetlands". As such, Ramsar sites that protect intertidal or subtidal habitats and species are considered MPAs.</p>
Marine conservation Areas	An MPA where it is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource for recreational and/or commercial purposes except for species expressly allowed for recreational and/or commercial take (species and gear exceptions vary by location). ⁹⁵
Marine parks	A multiple-use MPA. They have different zones within them allowing different types of activities. In the U.S. they are designed by Congress. Legislators can specify the level of protection, and it is

	difficult to generalize. They usually allow boating, snorkeling and sport fishing. Many marine parks also include zones for commercial fishing (open zones). They may also include no-take zones. ⁹⁶
Marine wildlife refuges	In the U.S. alone a system that includes 180 refuges exists. They protect ocean, coastal or Great Lakes habitats. They protect an incredible diversity of marine and coastal ecosystems including salt marches, rocky shorelines, tide pools, sandy beaches etc. ⁹⁷
Marine recreational management areas	Limits recreational and commercial take of marine resources while allowing for legal waterfowl hunting to occur; provides subtidal protection equivalent to an MPA. Restrictions varies. ⁹⁸
Seasonal closures/temporary closures	MPAs or zones that protect specific habitats and resources, but only during fixed seasons or periods when human uses may disrupt ecologically sensitive seasonal processes such as spawning, breeding, or feeding aggregations. Do not provide any guarantee against overfishing of a fish stock which can take place in other areas at other times. On the other hand, closures of major portions of the fishing grounds can affect fishing mortality and abundance in adjacent areas. Their purpose is to reduce catching power and fishing mortality by limiting the amount of fishing to a desired level. ⁹⁹
Monuments	They have similar levels of restriction as marine reserves. Marine national monuments are nearly off-limits to any kind of resource extraction, with exceptions for traditional uses by indigenous peoples and scientific research. ¹⁰⁰
Strict nature reserve	Protected areas that are strictly set aside to protect biodiversity and also possibly geological/geomorphological features. Human visitation, use and impacts are strictly controlled and limited to ensure protection of the conservation values. They are valuable research and monitoring sites. ¹⁰¹
Protected seascape	The interaction of people and nature over time has produced an area of distinct character with significant ecological, biological, cultural and scenic value. Safeguarding the integrity of this interaction is vital to protecting and sustaining the area and its associated nature conservation and other values. ¹⁰²

Appendix B: Universal Declaration of the Rights of Mother Earth¹⁰³

Adopted April 22, 2010 World People's Conference on Climate Change and the Rights of Mother Earth, Cochabamba, Bolivia

Preamble

We, the peoples and nations of Earth:

considering that we are all part of Mother Earth, an indivisible, living community of interrelated and interdependent beings with a common destiny;
gratefully acknowledging that Mother Earth is the source of life, nourishment and learning and provides everything we need to live well;
recognizing that the capitalist system and all forms of depredation, exploitation, abuse and contamination have caused great destruction, degradation and disruption of Mother Earth, putting life as we know it today at risk through phenomena such as climate change;
convinced that in an interdependent living community it is not possible to recognize the rights of only human beings without causing an imbalance within Mother Earth;
affirming that to guarantee human rights it is necessary to recognize and defend the rights of Mother Earth and all beings in her and that there are existing cultures, practices and laws that do so;
conscious of the urgency of taking decisive, collective action to transform structures and systems that cause climate change and other threats to Mother Earth;

Proclaim this Universal Declaration of the Rights of Mother Earth, and call on the General Assembly of the United Nation to adopt it, as a common standard of achievement for all peoples and all nations of the world, and to the end that every individual and institution takes responsibility for promoting through teaching, education, and consciousness raising, respect for the rights recognized in this Declaration and ensure through prompt and progressive measures and mechanisms, national and international, their universal and effective recognition and observance among all peoples and States in the world.

Article 1. Mother Earth

1. Mother Earth is a living being.
2. Mother Earth is a unique, indivisible, self-regulating community of interrelated beings that sustains, contains and reproduces all beings.
3. Each being is defined by its relationships as an integral part of Mother Earth.
4. The inherent rights of Mother Earth are inalienable in that they arise from the same source as existence.
5. Mother Earth and all beings are entitled to all the inherent rights recognized in this Declaration without distinction of any kind, such as may be made between organic and inorganic beings, species, origin, use to human beings, or any other status.

6. Just as human beings have human rights, all other beings also have rights which are specific to their species or kind and appropriate for their role and function within the communities within which they exist.
7. The rights of each being are limited by the rights of other beings and any conflict between their rights must be resolved in a way that maintains the integrity, balance and health of Mother Earth.

Article 2. Inherent Rights of Mother Earth

1. Mother Earth and all beings of which she is composed have the following inherent rights:
 - a. the right to life and to exist;
 - b. the right to be respected;
 - c. the right to regenerate its bio-capacity and to continue its vital cycles and processes free from human disruptions;
 - d. the right to maintain its identity and integrity as a distinct, self-regulating and interrelated being;
 - e. the right to water as a source of life;
 - f. the right to clean air;
 - g. the right to integral health;
 - h. the right to be free from contamination, pollution and toxic or radioactive waste;
 - i. the right to not have its genetic structure modified or disrupted in a manner that threatens its integrity or vital and healthy functioning;
 - j. the right to full and prompt restoration for violation of the rights recognized in this Declaration caused by human activities;
2. Each being has the right to a place and to play its role in Mother Earth for her harmonious functioning.
3. Every being has the right to wellbeing and to live free from torture or cruel treatment by human beings.

Article 3. Obligations of human beings to Mother Earth

1. Every human being is responsible for respecting and living in harmony with Mother Earth.
2. Human beings, all States, and all public and private institutions must:
 - a. act in accordance with the rights and obligations recognized in this Declaration;
 - b. recognize and promote the full implementation and enforcement of the rights and obligations recognized in this Declaration;
 - c. promote and participate in learning, analysis, interpretation and communication about how to live in harmony with Mother Earth in accordance with this Declaration;
 - d. ensure that the pursuit of human wellbeing contributes to the wellbeing of Mother Earth, now and in the future;
 - e. establish and apply effective norms and laws for the defence, protection and conservation of the rights of Mother Earth;

- f. respect, protect, conserve and where necessary, restore the integrity, of the vital ecological cycles, processes and balances of Mother Earth;
- g. guarantee that the damages caused by human violations of the inherent rights recognized in this Declaration are rectified and that those responsible are held accountable for restoring the integrity and health of Mother Earth;
- h. empower human beings and institutions to defend the rights of Mother Earth and of all beings;
- i. establish precautionary and restrictive measures to prevent human activities from causing species extinction, the destruction of ecosystems or the disruption of ecological cycles;
- j. guarantee peace and eliminate nuclear, chemical and biological weapons;
- k. promote and support practices of respect for Mother Earth and all beings, in accordance with their own cultures, traditions and customs;
- l. promote economic systems that are in harmony with Mother Earth and in accordance with the rights recognized in this Declaration.

Article 4. Definitions

1. The term “being” includes ecosystems, natural communities, species and all other natural entities which exist as part of Mother Earth.
2. Nothing in this Declaration restricts the recognition of other inherent rights of all beings or specified beings.

Appendix C: The Current Framework for Marine Protected Area Governance

Part A: The worldview of the current framework

I. Most of today's society functions within an anthropocentric worldview, with humans as separate and above nature, rather as a part and partner. We create laws with the assumption that nature is therefore property and a resource. Defining nature as a resource, is one underlying reason why we continue to exploit and degrade without regard for the health of the entire system. For example, the ocean is described as an "open access resource (for everyone's use) and its over-exploitation is attributed to this feature."¹⁰⁴

Consider the various definitions of a resource:

1. Merriam-Webster:
 - a) a source of supply or support: an available means
 - b) a natural source of wealth or revenue
 - c) a natural feature or phenomenon that enhances the quality of human life
 - d) computable wealth
2. Oxford:
 - a) a stock or supply of money, materials, staff, and other assets that can be drawn on by a person or organization in order to function effectively
 - b) a country's collective means of supporting itself or becoming wealthier, as represented by its reserves of minerals, land, and other natural assets
3. Business Dictionary:
 - (a) an economic or productive factor required to accomplish an activity, or as means to undertake an enterprise and achieve desired outcome

Therefore, due to our assumptions behind what a resource is, and labelling nature as a resource, we function within a worldview where nature equals profit and an object, not its own entity.

Erich Hoyt (2011) highlights traditional and current assumptions and their outcomes, which apply in the context of human use of the ocean and ocean conservation.

Traditional and current assumptions include:

- "owners of resources have the right to do whatever they want with the resources
- if a resource is not used by someone, it can be used by anyone
- use cannot be restricted unless some individual or entity with legal standing objects and can show that, its property, or public welfare is being affected adversely by the activity"

These assumptions have led to:

- "competition for access to resources
- development of resource-use industries faster than development of knowledge concerning the resource and its ecosystem

- over-capitalization of the industry
- over-exploitation and depletion of the resource
- damage, waste, or loss of other components of the ecosystem
- loss of capital investment and related socio-economic impacts because of the long-term yield is far below the exploitation capacity that has developed
- managing the industry to protect capital investment and minimize short-term socio-economic impacts, rather than to maintain the resource at a level provided long-term benefits.”¹⁰⁵

Suggested mechanisms to ensure that property rights are consistent with conservation include: internalization of costs that are external and ignored by markets, regulation of access to common pool resources, and security of tenure for users.¹⁰⁶ However, even these mechanisms are failing and proving insufficient,¹⁰⁷ especially in the ocean where the majority is high seas, and not under national jurisdiction.

II. An anthropocentric worldview also contributes to human-centered objectives for ocean law and policy. Where laws should be designed to protect marine ecosystems and species for their own sake, protection is largely used to fuel human needs and desires.

Examples of human-centered objectives in ocean law and policy include:

- The defined goal for network of MPAs by IUCN is “to provide for protection, restoration, wise use, understanding and enjoyment of the marine heritage of the world in perpetuity....in accordance with the principles of the World Conservation Strategy of human activities that use or affect the marine environment.” Where wise use is defined as “for the use of people on an ecologically sustainable basis.” This includes for the continued welfare of people affected by the creation of the MPA;¹⁰⁸
- The National Ocean Policy of the United States, Executive Order 13547, provides a framework to improve ecosystem health, resiliency, and biodiversity as well as sustainable and productive access and use. The Order seeks to protect the ocean in order to continue to provide benefits that support the Nation’s well-being, safety, and prosperity. It emphasizes the ocean and coastal areas as sources of jobs, energy, recreation, tourism, transportation, and that communities, not animals, depend on healthy and resilient ecosystems. Although the policy recognizes the declining health of marine ecosystems, it emphasizes the costs to the economy, for example, the threats of invasive species to fisheries, tourism, and infrastructure, and not to endemic species populations and ecosystem stability. The Implementation Plan states that the policy will provide the science and tools to sustain and improve the quality of life for all Americans rather than all marine life;
- The United Nations Convention of the Law of the Sea’s objective in the preamble is to provide for “a legal order for the seas and oceans which will facilitate international

communication, and will promote the peaceful uses of the seas and oceans, the equitable and efficient utilization of their resources, the conservation of their living resources, and the study, protection and preservation of the marine environment.... and that the achievement of these goals will contribute to the realization of a just and equitable international economic order which takes into account the interests and needs of mankind as a whole.” Though titled “conservation of living resources,” Article 61 determines allowable catch is to be “designed to maintain or restore populations of harvested species at levels which can produce the maximum sustainable yield, as qualified by relevant environmental and economic factors;”¹⁰⁹ and

- In the United Nations 2030 Agenda, Goal 14 states: Conserve and sustainably use the oceans, seas and marine resources *for* sustainable development (emphasis added).

The Magnuson-Stevens Fisheries and Conservation Act highlights clearly how a human-centered approach to a seemingly well-intentioned law can prevent conservation.

The Magnuson- Stevens Fishery Conservation and Management Act (MSA) was enacted in the United States in 1976 to “prevent overfishing, rebuild overfished stocks, increase long- term economic and social benefits and to ensure a safe and sustainable supply of seafood.” The MSA at first glance, appears to aim for the conservation and restoration of fish populations, but we are still seeing fisheries collapse; in 2015 NOAA identified 9 percent of US stocks on the “overfishing” list and 16 percent on the “overfished” list. This is because fishery health is defined in terms of human and economic benefit.

A stated purpose of the MSA is “to provide for the preparation and implementation... of fishery management plans which will achieve and maintain, on a continuing basis, the optimum yield from each fishery,”¹¹⁰ where optimum is defined as the “amount of fish which will provide the greatest overall benefit to the Nation” on the “basis of the maximum sustainable yield from the fishery.”¹¹¹

First, we value fish as a resource and object by converting it to a “fishery.” Second, we determine the amount of fish we take from the ocean based on what provides the greatest benefit to the Nation, which in large part translates to the most economic growth and benefit to industry.

Lastly, we focus on “mortality” rather than life by managing our activities based on “maximum sustainable yield.” We strive for the maximum amount of fish we can take out of the ocean and in isolation from its complex interactions within the ecosystem, when we should be striving to maintain a healthy and thriving ecosystem.

III. It is important to note that in many cases we do intend to maintain a healthy and thriving ecosystem. “Health” is often cited as a goal of current environmental law and policy. Examples in the United States include the following:

- The California Ocean Protection Act (COPA) states that California decisions affecting the coastal and ocean environment “should be designed and implemented to conserve the *health* and diversity of ocean life and ecosystems”¹¹² and “conducted in a manner consistent with protection, conservation, and maintenance of *healthy* coastal and ocean ecosystems . . .”¹¹³
 - COPA further finds that “[a] *healthy* ocean is part of the state's legacy,” and is necessary to support the state's human and wildlife populations;”¹¹⁴
- The Marine Life Management Act lists its top objective to “Conserve the *health* and diversity of marine ecosystems and marine living resources;”¹¹⁵
- The California Coastal Act states that “Uses of the marine environment shall ... maintain *healthy* populations of all species of marine organisms;”¹¹⁶
- The Marine Life Protection Act (MLPA) advances protection of the ocean and coast generally, aiming for overall ocean ecosystem health. For example, Fish and Game Code § 2853(b)(1) describes the MLPA’s intent as to “protect the natural diversity and abundance of marine life, and the structure, function, and integrity of marine ecosystems.” The MLPA Master Plan reinforces this goal as protecting the “*health* of marine ecosystems.”¹¹⁷ The MLPA specifically recognizes the importance of protecting marine habitats for their own “intrinsic value.”¹¹⁸ In other words, health in the MLPA context refers to health from the perspective of the affected ecosystems, as opposed to an anthropocentric perspective of the ocean’s utility to humans;
- The Fish and Game Code establishes California wildlife policy as “perpetuat[ing] all species of wildlife *for their intrinsic and ecological values*, as well as for their direct benefits to all persons.” The section adds that “management shall be consistent with the maintenance of *healthy* and thriving wildlife resources . . . ;”¹¹⁹ and
- The federal Marine Mammal Protection Act (MMPA) states that the primary objective of marine mammal management “should be to maintain the health and stability of the marine ecosystem.”¹²⁰

[Source: Adapted from Linda Sheehan, A Vision for Ocean Health in California, Earth Law Center (2016)]

But what is the meaning of healthy? And how can we achieve it? A known impediment to ocean conservation is a lack of a singularly agreed upon definition of what a healthy ocean looks like.

As observed recently by marine scientists, health is a normative concept that implies *judgment on the desirable state for an ecosystem*. Such judgment is *influenced by human values and needs*, and thus definitions of OH have varied from human-centric views that focus primarily on the benefits that oceans provide to people (e.g. Halpern *et al.* 2012), to nature-centric views that would rate ecosystems with the fewest human pressures as the healthiest (e.g., McCauley *et al.* 2013).¹²¹

One of the most widely used report cards for monitoring and evaluating ocean health is the Ocean Health Index. The index defines a healthy ocean as one that “sustainably delivers a range of benefits to people now and in the future” and nine out of ten of its attributes directly describe ecosystem services or benefits to humans specifically down-grading “nations that underuse ocean benefits...to protect resources against future uncertainty.” Therefore, even though it may seem like we are working toward ensuring a healthy and thriving ocean, we are not doing so on the ocean’s terms.

IV. “No-take” zones, an area generally where extractive activities are not allowed,¹²² allow the ocean and its cycles and systems to function without human disturbance. Fully protected areas help to restore fish populations (biomass) and biodiversity. In fact, the disappearance of human disturbances results in rapid rebound of fish populations. These positive outcomes also reach beyond the designated boundaries of the no-take zone, referred to as the “spillover effect.”¹²³ Studies show that no-take zones also produce cost-benefit ratios where benefits far exceeding the costs.¹²⁴ No-take MPAs also provide direct and indirect human benefits, such as those for jobs, research and cultural values¹²⁵.

However, “no-take” zone definitions vary across MPAs, only apply to specific target species, and their employment has been hindered in large part by the absence of the explicit requirement for MPAs to include such components.¹²⁶

Accordingly, an Earth Law Framework for MPAs not only recommends core areas are highly protected in the form of “no-take” for living and nonliving components, but that these zones include a strict prohibition on fishing, commercial, and military traffic, eco-tourism such as whale watching prohibited or severely limited, and non-invasive research/ monitoring vessels. The Earth Law Framework also recommends banning any industrial discharge and oil or mineral extraction.¹²⁷

The US Marine Mammal Protection Act provides an example of an anthropocentric approach to “not-take.” The MMPA intends to minimize harm, injury, killing, or removal of marine mammals from their ecosystems. In its provisions, it seeks to maintain marine ecosystem health as a whole. The Act includes a no-take provision, placing a moratorium on the take and importation of marine mammals and marine mammal products, in which take is defined as “harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal.” The Act states that species or stocks “should not be permitted to diminish beyond the point at which they cease to be a significant functioning element in the ecosystem of which they are a part...below their optimum sustainable population level.” The optimum sustainable population level is defined as “the number of animals which will result in the maximum productivity of the population or the species, keeping in mind the carrying capacity of the habitat and the health of the ecosystem of which they form a constituent element.” This provision focuses on the species’ population productivity, the number of species needed within a healthy ecosystem,

rather than economic productivity and the number of species which humans can remove from the ecosystem.

However, the Act does contain exemptions for take and importation of marine mammals and marine mammal products for scientific research, public display, photography, education, commercial purposes, as well as permits for incidental take for activities “with negligible impact on such species or stock,” including military sonar and training exercises, oil and gas exploration and development, construction, and geophysical surveys for other energy and scientific research projects. The Act also establishes a precedent for permits for exemptions due to cultural traditions and dependence such as access by Alaskan Natives for subsistence resources and to create “authentic native handicrafts” with marine mammal products. Despite an intent to protect marine mammals for ecosystem health, the Act refers to marine mammals as “resources of great international significance,” esthetically, recreationally, and economically, as well as parts of interstate commerce and resources. It concludes that conservation is necessary “to insure the continuing availability of those products which move in interstate commerce” rather than for the sake of the ecosystem and the marine mammals’ rights to life.

Although many suits have been filed against the Navy’s training exercises for sonars and explosives, as in *Secretary of the Navy, et al. v NRDC, INC, et al.*, the Supreme Court has repeatedly ruled in favor of continued sonar exercises, prioritizing “public interest and the Navy’s interest in effective, realistic training” over “a likelihood of irreparable injury.”

Part B: Key components of the current framework

The current legal framework for MPAs provided for by the IUCN requires specification of the following:

- a) Objectives;
- b) Management rules and penalties applied (with any special rules and administrative measures that may be needed, and safeguards to ensure and enhance compliance by Government, including transparency of decision making and provision for NGOs);
- c) Delineation of boundaries;
- d) Providing adequate statements of authority, precedence and procedures;
- e) Advisory and consultation processes;
- f) Criteria for decision making;
- g) Relationship with other national and local authorities, and procedures for coordination and conflict resolution;
- h) Management plans, zoning and regulation;
- i) Monitoring and review; and
- j) Compensation.¹²⁸

Similarly, NOAA’s “blueprint for building the National System of MPAs” outlines the key components of the national system of marine protected areas as:

- a) A definition of the term “MPA”;
- b) National system goals and conservation objectives;
- c) Capacity building to strengthen the management effectiveness of U.S. MPA programs;
- d) Processes for fostering regional MPA networks and collaboration;
- e) Mechanisms for national and international collaboration;
- f) Preliminary guidance regarding federal agency responsibilities to avoid harm to resources protected by the National System of MPAs;
- g) Principles and processes for expanding MPA networks and establishing new MPAs; and
- h) Approaches for monitoring, evaluating, and reporting on national system progress and priorities.¹²⁹

The IUCN also identifies key components which are normally included in principal or subsidiary legislation for protected areas, including:

- (a) Legal description of the area and how it relates to the system plan;
- (b) Protected areas authority in charge and other important governance arrangements;
- (c) Basic description of the resources and conservation values for which the area is being designated, and related human interactions intended to be permitted in the area;
- (d) Conservation objectives and management category for the area;
- (e) Principal threats and management approaches for dealing with them;
- (f) Zoning plan (as needed);
- (g) Kinds of activities permitted and prohibited in the area;
- (h) Monitoring plan;
- (i) Performance criteria for evaluating progress toward goals and objectives, and effectiveness of specific management approach; and
- (j) Life of the plan and basic cycle for review, revision and updating.¹³⁰

Part C: The guiding principles and characteristics of the current framework

The IUCN’s Guiding principles for protected areas include:

- 1) “[O]nly those areas where the main objective is conserving nature can be considered protected areas; this can include many areas with other goals as well, at the same level, but in the case of conflict, nature conservation will be the priority;
- 2) Protected areas must prevent, or eliminate where necessary, any exploitation or management practice that will be harmful to the objectives of designation; [...]
- 3) Protected areas should usually aim to maintain or, ideally, increase the degree of naturalness of the ecosystem being protected (Dudley, 2008, p. 10).”¹³¹

IUCN considers that the main characteristics of a protected areas system should include:

- 1) “Representativeness, comprehensiveness and balance: ability to represent or sample the full variety of biodiversity and other features such as landform types, and landscapes or seascapes of cultural value, so as to protect the highest quality examples, especially threatened and under-protected ecosystems, and species globally threatened with extinction.
- 2) Adequacy: supporting the viability of ecosystem processes as well as species, populations and communities that make up the country’s biodiversity.
- 3) Coherence and complementarity: the extent to which each site makes a positive contribution to the system as a whole.
- 4) Consistency: the application of management objectives, policies and classifications to individual sites under comparable conditions in standard ways.
- 5) Cost-effectiveness, efficiency and equity: an appropriate balance between the costs of and benefits flowing from protected areas, equity in their distribution, and efficiency in terms of the minimum number and size of protected areas needed to achieve system objectives.
- 6) Persistence: the ability to promote the long-term survival of biodiversity contained within a protected area by maintaining natural processes and viable populations and by excluding or overcoming threats.
- 7) Resilience: the ability to adapt and sustain primary conservation objectives of the site and the system overall in the face of climate change and other global change factors.”

Adapted from Barber *et al.*, 2004; Davey, 1998; and Dudley, 2008.¹³²

Appendix D: Rights of Nature Taking Hold Worldwide

Ecuador

In 2008, Ecuador became the first country to adopt Rights of Nature into its Constitution. The Constitution, endows “Nature or Pachamama, where life is reproduced and exists” with inalienable rights to “exist, persist, maintain and regenerate its vital cycles, structure, functions and its processes in evolution.” The Constitution also gives nature the right to restoration and the people to “live in a healthy and ecologically balanced environment that guarantees sustainability and the good way of living.” It is the responsibility of the Ecuadorian State to “respect the rights of nature, preserve a healthy environment and use natural resources rationally, sustainably and durably” and to provide incentives to the citizens to “protect nature and to promote respect for all the elements comprising an ecosystem.”¹³³

Bolivia

Bolivia passed the Law of Mother Earth in 2010 with the objective to “recognize the rights of Mother Earth” and ensure respect for those rights.¹³⁴ The Law grants seven rights to Mother Earth; the right to life, to the diversity of life, to water, to clean air, to equilibrium, to restoration and to pollution-free living.¹³⁵ Additionally, in 2012, Bolivia passed the Framework Law of Mother Earth and Holistic Development for Living Well. The Framework is intended to “guide the specific laws, policies, rules, strategies, plans, programs and projects...through integral development in harmony and balance with Mother Earth.”¹³⁶ It builds upon the Law of Mother Earth by adding the concepts of Holistic Development and Living Well or “Vivir Bien.” Mother Earth is given legal status as a “collective subject of public interest.”¹³⁷ The Law adds additional protections, requiring any individual or collective to prevent damage to Mother Earth and restore its components if damaged, and to respect the natural cycles and regenerative capacities of Mother Earth.

New Zealand

New Zealand granted legal personhood to the Te Urewera National Park and Whanganui River and its tributaries. In 2013, the Tūhoe people and the New Zealand government agreed upon the Te Urewera Act, giving the Te Urewera National Park “all the rights, powers, duties, and liabilities of a legal person.”¹³⁸ A Board was then established to serve as “guardians” of Te Urewera and to protect its interests. The stated purpose of the Act was to protect Te Urewera “for its intrinsic worth,” including its biodiversity and indigenous ecological systems. Similarly, the Maori people have successfully pursued similar results for the Whanganui River and its tributaries, under the Maori worldview “I am the River and the River is me.” Under the Tutohu Whakatupua Treaty Agreement,¹³⁹ the River is given legal status under the name Te Awa Tupua. Te Awa Tupua is recognized as “an indivisible and living whole” and “declared to be a legal person.” Two guardians, one from the Crown and one from a Whanganui River iwi, will be given the role of protecting the River. This treaty is especially important because it “recognises the intrinsic interconnection between the Whanganui River and the people of the River (both

iwi and the community generally),” and finds “the health and wellbeing of the Whanganui River is intrinsically interconnected with the health and wellbeing of the people.”¹⁴⁰

United States

Over three dozen municipalities in the United States have recognized nature’s rights in local ordinances. In 2013, Santa Monica a Sustainability Rights Ordinance, which recognizes the inherent “rights of natural communities in Santa Monica.” The Ordinance protects these rights from acts by “corporate entities,” which “do not enjoy special privileges or powers under the law that subordinate the community's rights to their private interests.” Finally, the Ordinance recognizes that “Santa Monica's welfare is inextricably bound to the welfare of the natural environment.” Additionally, in response to the threats of shale natural gas drilling, Pittsburgh amended their home rule charter to include the right of the people to self-govern, the rights of natural communities, and prohibitions on corporate legal privileges, noting that “environmental and economic sustainability cannot be achieved if the rights of municipal majorities are routinely overridden by corporate minorities claiming certain legal powers.”¹⁴¹

India

In 2012, the Supreme Court of India recognized a fundamental duty of citizens under the Constitution to protect and enhance environment, ruling that “human interest[s] do not take automatic precedence and humans have obligations to nonhumans independently of human interest.”¹⁴² On March 22, 2017, the Uttarakhand High Court in India declared two sacred rivers, the Ganga and Yamuna, as living entities with their own legal rights. The Court also appointed guardians to represent these waterways in legal matters. In a subsequent decision the Court declared the entire Himalayan ecosystem, its [m]ountain ranges, glaciers, rivers, streams, rivulets, lakes, jungles, air, forests, meadows, dales, wetlands, grasslands and springs” a “legal entity/legal person.” The Rivers and Himalayan ecosystem rights are “equivalent to the rights of human beings and the injury/harm caused to these bodies shall be treated as harm/injury caused to the human beings.”¹⁴³

Colombia

Following the decision in India, the Atrato River was granted legal personhood rights by the Constitutional Court in Colombia. The High Court asserted that “the defendant state authorities are responsible for violating fundamental rights to life, health, water, food security, the healthy environment, culture and territory of the local ethnic communities.”¹⁴⁴ The judgment said that “only an attitude of profound respect and humility with nature and its beings makes it possible for us to relate with them in just and equitable terms, leaving aside every utility, economic or efficient concept”.¹⁴⁵

Mexico City

On January 11, 2017, Mexico City adopted Rights of Nature into its Constitution. The new Constitution is expected to enter into force in September 2018. The relevant sections of the new Constitution are paragraphs 2 and 3 of Article 13. They assert that "the right to the preservation and protection of nature will be guaranteed by the authorities of Mexico City." Additionally, Article 13 declares that a secondary law shall be passed "to recognise and regulate the protection of the rights of nature, as formed by all its ecosystems and species as a collective entity with collective rights." Citizens of Mexico City will then be able to enforce fundamental rights on behalf of nature.¹⁴⁶

United Nations

The United Nations has adopted five resolutions on 'Harmony with Nature' providing steps toward the "construction of a new, non-anthropocentric relationship with nature."¹⁴⁷ The United Nations General Assembly also held seven dialogues to date on 'Harmony with Nature.' In 2015, the U.N. adopted a resolution that established a committee of experts in Earth Jurisprudence to meet through an invite-only dialogue and prepare an expert report to the U.N. on the application of Earth Jurisprudence.¹⁴⁸ The released report, "U.N. Experts' Summary Report on Harmony with Nature: Earth Jurisprudence" (Aug. 2016)¹⁴⁹ summarizes the insights and recommendations of 120 experts worldwide in law, science, economics, education, ethics and other disciplines toward implementing Earth-centered worldviews and actions. The report explores ways in which rights of nature and Earth-based law can achieve SDGs. The Dialogue and report address:

1. The importance of applying Earth Jurisprudence principles to inspire citizens and societies to reconsider how they interact with the natural world in order to implement the SDGs in harmony with nature.
2. The need to recognize the intrinsic value of nature and to shift our perceptions, attitudes and behaviours from anthropocentric or human-centred, to non-anthropocentric or Earth-centred in which the planet is not considered to be an inanimate object.
3. The support for Earth Jurisprudence in laws, ethics, institutions, policies and practices, including a fundamental respect and reverence for the Earth and its natural cycles.¹⁵⁰

International Union for the Conservation of Nature (IUCN)

The IUCN¹⁵¹ is an environmental network comprised of government and civil society organizations; over 16,000 experts and 1300 Member organizations. It serves as a "trusted repository of best practices, conservation tools, and international guidelines and standards." At the 2012 World Conservation Congress, IUCN members recognized nature's rights by passing Resolution 100, "Incorporation of the Rights of Nature as the organizational focal point in IUCN's decision making." This Resolution called for nature's rights to be a "fundamental and absolute key element in all IUCN decisions," and invited the Director General and IUCN

Members to promote a Universal Declaration of the Rights of Nature.¹⁵² Additionally, IUCN Members approved amendments to their 2017-2020 Programme that committed them to take action to implement nature's inherent rights; including committing to "protected area governance systems that achieve the effective and equitable governance of natural resources are recognized (as best practices/ pilot testing), supported and promoted, while respecting the rights of nature" to achieve SDG 14.¹⁵³

Appendix E: Human Rights and Indigenous Rights Depend on Nature's Rights

By recognizing and respecting nature's rights we promote human rights and indigenous rights. The exercise of human rights depends on a healthy planet to support them. By respecting, protecting and restoring the ocean the following human and indigenous rights as provided by the Universal Declaration of Human Rights (UDHR) and the Universal Declaration on the Rights of Indigenous Peoples (UNDRIP) are also respected and validated.

The impacts of declining marine biodiversity implicate many potential violations of human rights recognized by the UDHR, including the following:

- The right to "life, liberty and security of person" [Art. 3]
- The right to work, to free choice of employment, to just and favourable conditions of work and to protection against unemployment [Art. 23(1)]
- "Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food" [Art. 25(1)]
- "In the exercise of his rights and freedoms, everyone shall be subject only to such limitations as are determined by law solely for the purpose of securing due recognition and respect for the rights and freedoms of others and of meeting the just requirements of morality, public order and the general welfare in a democratic society." [Art. 29(2)]

The decline in marine biodiversity from human activities also implicates many potential violations of the UNDRIP, including:

- The right to "maintain and strengthen their distinct political, legal, economic, social and cultural institutions" [Art. 5]
- The right of indigenous people to "life, physical and mental integrity, liberty and security of person" [Art. 7(1)]
- "States shall provide effective mechanisms for prevention of, and redress for: (a) Any action which has the aim or effect of depriving them of their integrity as distinct peoples, or of their cultural values or ethnic identities; (b) Any action which has the aim or effect of dispossessing them of their lands, territories or resources;" Considering that indigenous cultures and identities are based on fishing and hunting. [Art. 8(2)]
- The right to "[practice] and revitalize their cultural traditions and customs" [Art. 11]
- Indigenous peoples have "the right to the dignity and diversity of their cultures, traditions, histories and aspirations which shall be appropriately reflected in education and public information." [Art. 15(1)]
- The right "to participate in decision making in matters which would affect their rights." [Art. 18]
- The right to "free, prior and informed consent before [States] adopting and implementing legislative or administrative measures that may affect them." [Art. 19]
- The right to "be secure in the enjoyment of their own means of subsistence and development" [Art. 20(1)], and the right to "just and fair redress" when "deprived of their means of subsistence and development" [Art. 20(2)]

- The equal right of indigenous individuals to “the enjoyment of the highest attainable standard of physical and mental health.” [Art. 24(2)]
- The right “to maintain and strengthen their distinctive spiritual relationship with their traditionally owned or otherwise occupied and used lands, territories, waters and coastal seas and other resources” [Art. 25]
- The right of indigenous peoples to and use of “the lands, territories and resources which they have traditionally owned, occupied or otherwise used or acquired” [Art. 26]
- “States shall establish and implement, in conjunction with indigenous peoples concerned, a fair, independent, impartial, open and transparent process, giving due recognition to indigenous peoples’ laws, traditions, customs and land tenure systems, to recognize and adjudicate the rights of indigenous peoples pertaining to their lands, territories and resources, including those which were traditionally owned or otherwise occupied or used. Indigenous peoples shall have the right to participate in this process.” [Art. 27]
- The right to “the conservation and protection of the environment and the productive capacity of their lands or territories and resources” [Art. 29]
- The right to “...maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions...” [Art. 31(1)], and the obligation of the state to take measures to recognize and protect these rights [Art. 31(2)]
- The right of indigenous peoples to “determine and develop priorities and strategies for the development or use of their lands or territories and other resources” [Art. 32(1)], and the obligation of states to “consult and cooperate in good faith with the indigenous peoples” to obtain “free and informed consent prior to the approval of any project affecting their lands or territories and other resources” [Art. 32(2)] Also, the obligation of the state to “mitigate adverse environmental, economic, social, cultural or spiritual impact.” [Art. 32(3)]

Appendix F: Rights of Nature Applied to Marine Protected Areas

Part A: Ecuador and the Law of the Galapagos

The Galapagos is a globally recognized area of vast and significant biodiversity consisting of two protected areas: Galapagos National Park and Galapagos Marine Reserve. The National Park was established in 1959, but the Galapagos Marine Reserve was not created until 1998, with the passing of the Special Law on the Galapagos.¹⁵⁴ The Marine Reserve represents the beginning desire to employ the Earth Law Framework.

First, written and approved by a multi-stakeholder group,¹⁵⁵ the Special Law's guiding principle for governance is "An equilibrium among the society, the economy, and nature; cautionary measures to limit risks; respect for the rights of nature; restoration in cases of damage; and citizen participation."¹⁵⁶

Additionally, Ecuador enacted the Special Law in recognition of the biodiversity on the islands, the Nation's duty to protect and restore its ecosystems, and the role inhabitants should play in conservation projects for improved and sustainable livelihoods.¹⁵⁷



Figure 1. Principles of the 2014 Management Plan for Protected Areas of Galapagos for Good Living¹⁵⁸

The management plan of the Marine Reserve requires zoning of fishing and tourism activities to protect vulnerable ecosystems and ensure conservation and sustainable use of resources, with the goal to preserve native marine life.¹⁵⁹ Its management objectives intend to ensure fishing activities are compatible with biodiversity conservation while supporting local fishers socially

and economically and ensuring sustainable use of natural resources.¹⁶⁰ Local and commercial fishing is allowed in some areas of the Reserve, but there are strict regulations.¹⁶¹ Additionally, an education program trains locals in sustainable fishing practices to reduce the impact of these permitted activities.¹⁶² Fishing pressure has been reduced on sharks and tuna, since the ban on industrial fishing and increased legislation to protect sharks.¹⁶³ All extractive activities are prohibited in areas that permit recreational activities, such as scuba diving, sport fishing, boating, snorkeling, and whale watching.¹⁶⁴

Secondly, in 2014, the Management Plan for the Protected Areas of Galapagos for Good Living was published to combine the management of two protected areas, Galapagos National Park and Galapagos Marine Reserve into a more holistic management approach. It recognizes the connections between development and conservation in the Galapagos, the dependence of the province on natural ecosystems, and the capacity and limits of marine and island ecosystems that must not be exceeded.¹⁶⁵ The Plan seeks to strengthen the management capacity of both protected areas and promote good living and an environmental responsibility.¹⁶⁶ As a result, the Special Law proposes regulations that will maintain ecosystems under “minimal human interference”¹⁶⁷ where minimal is defined and determined by sustainable and controlled development that continues to support the capacity of ecosystems, local participation, and a recognition of the interactions between inhabited areas and protected ecosystems.¹⁶⁸ Also, the management strategy recognizes the reality of how ecosystems exist in nature and applies the precautionary principle.¹⁶⁹

Finally, the Special Law limits economic activities to permanent residents of the Galapagos; those travelling as tourists or in transit are prohibited from conducting any economic activities and may only remain in the Galapagos for 90 days.¹⁷⁰ Tourism development permission will only be granted to permanent residents and must generate local benefits and have minimal impact on ecosystems, as evaluated through an environmental impact study.¹⁷¹

Although the framework of the Law sets the Galapagos up for improved conservation both on the island’s National Park and in the Marine Reserve, the Law has been met with resistance from the fishing and tourism sectors and the Nation has struggled with funding enforcement and projects.¹⁷² Other threats to marine ecosystem include agriculture, pollution and waste management, and non-native species.

There have been successful cases involving the MPA. For example, a fishing vessel was found in MPA with sharks (no fins) and the captain was given two years in prison. This case marked the first conviction of an environmental crime in 14 years of Galapagos law and set a precedent for prosecuting shark finning and other crimes against Nature in the Galapagos (Franco Fernando, 2015). Despite the successful ruling, the judge did not permit the Conservation Sector to legally represent the sharks in court (the District Attorney and Galapagos Park did this), but it did speak for Nature through an amicus brief.

Part B: New Zealand and the Hauraki Gulf Marine Park

The Hauraki Gulf Marine Park spans 1.2 million hectares of ocean and 2550 kilometers of coastline.¹⁷³ The Gulf supports the lives of more than 1.5 million people, which is around one-third of New Zealanders.¹⁷⁴ However, it remains threatened by growing population pressure, commercial and recreational fishing, invasive marine species, land-use practices, and declining biodiversity even with its National Park designation.¹⁷⁵ In 2013, key leaders were invited to form a Stakeholder Working Group, which would include the local local iwi and hapū tribes, recreational and commercial fishers, farmers, aquaculturists, community members, environmental groups, and a partnership with central and local government agencies.¹⁷⁶

The Park and its management provide another example of the attempt to employ the Earth Law Framework.

First, though it does not specifically codify legal rights for the Park, the Sea Change Marine Spatial Plan proposes the recognition of the Park's rights: "Gulf communities need to adjust their relationships with the lands and waters around them. Rather than thinking of the environment and its bounty as an entitlement, considering it as a being in its own right will help us to rethink our reciprocal responsibilities and work toward a better balance."¹⁷⁷ The Hauraki Gulf is also recognized as an "icon worth preserving" and a foundation for the transmission of cultural knowledge on human-ecosystem interactions.¹⁷⁸ Sea Change acknowledges that the area is used for work, recreation, adventure, peace, learning, ancestral history, and traditional use, but it plans to protect the natural values of the ecosystem from the negative impacts of use, infrastructure, and accessibility.

Secondly, the Plan contains four overarching categories: guardianship, replenishing the food basket, ridge to reef/mountains to sea, and prosperous communities. Guardianship, *kaitiakitanga*, is the ethic and conservation of the environment and the resources within it.¹⁷⁹ The guardians or "*Kaitiaki*" (the local Maori hapū or iwi people) have the "discretion and judgment over the issuing of permits."¹⁸⁰ However, the Plan goes even further with the guardianship concept, calling for guardianship to be "practiced by all"¹⁸¹ and every person to be given opportunities to participate in guardianship activities, such as to become involved in decision making, monitoring programs and restoration projects.¹⁸²

Thirdly, Sea Change focuses on a holistic and integrative approach to improving the Gulf's ecosystem and the health and well-being of those who depend on it. The priority is to improve ecosystem health; increased fish stocks and community opportunities are a side effect of a healthy, functional ecosystem. Sea Change is a bicultural management approach which seeks to restore, protect, and enhance the *mauri*, life supporting capacity, essence found in all elements of the natural world, of marine, estuarine, and freshwater ecosystems in the Hauraki Gulf Marine Park.

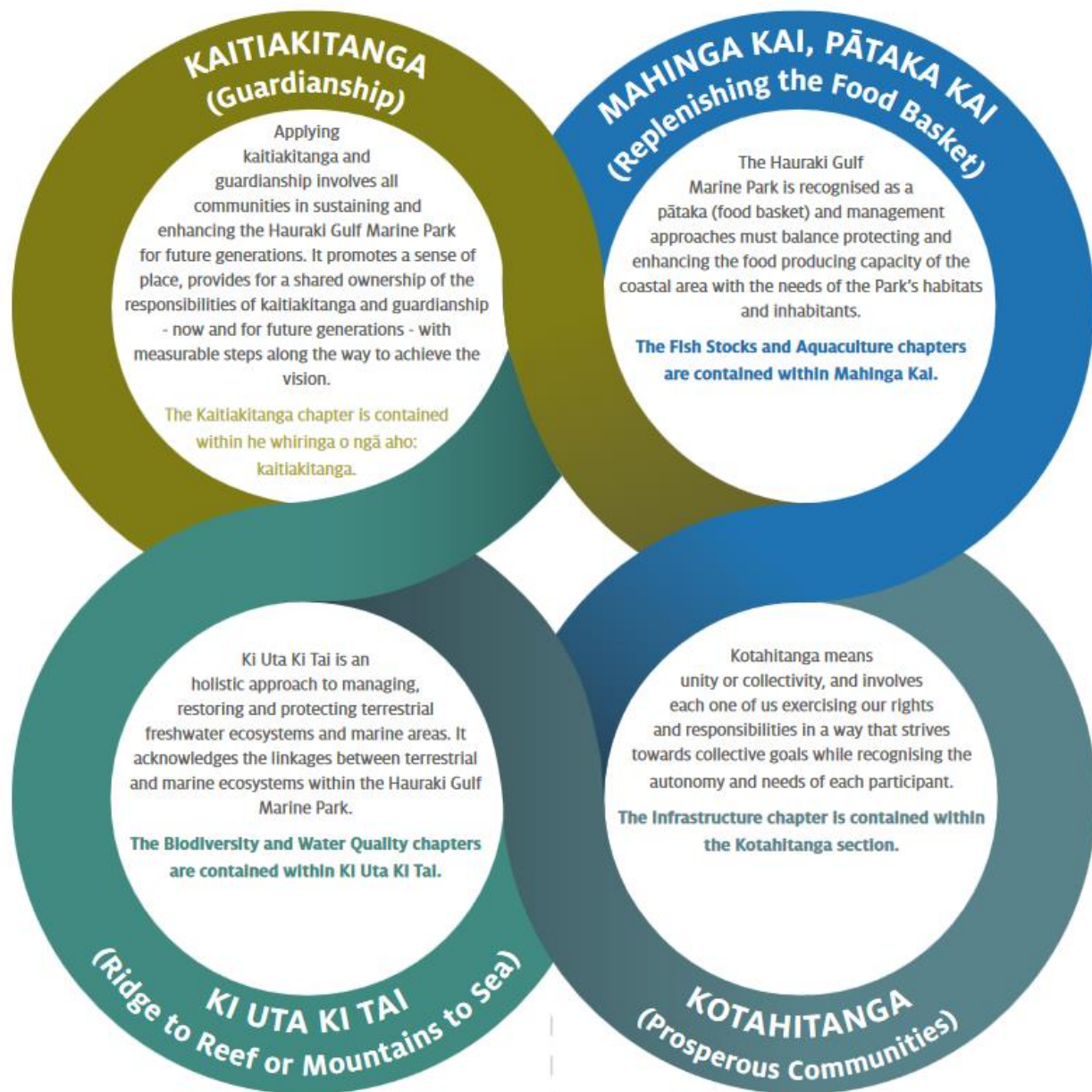


Figure 2. Four overarching concepts of the Hauraki Gulf Marine Spatial Plan¹⁸³

Lastly, the Plan defines and analyzes four different types of MPAs as part of its management approach: no-take marine reserves, benthic protection areas, special management areas, and co-management areas.¹⁸⁴ It proposes the establishment of a network of co-managed MPAs, with a nested approach in which areas no-take provisions, other than permitted customary harvesting practices, are nested within larger areas with fewer restrictions.¹⁸⁵ Co-management areas permit commercial and recreational fishing, except where communities and mana whenua decide to restrict such activities to better protect fisheries or the environment.¹⁸⁶

A historical precedent of both commercial and non-commercial fishing has existed for over 170 years, and for closer to a millennium for the Maori peoples.¹⁸⁷ However, Sea Change increases

regulations within the Park in recognition of the interconnectedness of ecosystems, to increase the abundance of all species, end further loss of biogenic habitats, and restore and maintain a sustainable and thriving fishery. The Plan specifies that quotas are limits, not targets, for fishers.¹⁸⁸ Those who break rules put in place will face newly introduced and strengthened penalties.¹⁸⁹ Further, to protect Bryde's whales and work toward eliminated deaths by ship strikes by 2018, the Plan intends to reduce the speed of ships travelling through the Gulf.¹⁹⁰ Moreover, the impacts of marine mammal tourism will be more extensively monitored and all existing permits which authorize interactions with bottlenose dolphins will be excluded when next reviewed.¹⁹¹

Another major provision of the Sea Change addresses indirect impacts on and nonliving aspects of ecosystems: sediment and water quality. The goal is to reduce sediment entering marine areas, runoff, and restore areas with poor water quality in order to support healthy marine habitats, species abundance, fish stocks, and increase opportunities for local people and communities.¹⁹²

The Sea Change Marine Spatial Plan has many provisions for protecting species, habitats, and whole ecosystems, as well as incorporating traditional knowledge and community members into management of the MPA. Its emphasis on specific species, projects, and threats allow for focused restrictions and goals. However, the Plan is non-statutory.¹⁹³ Thus, the actions, restrictions, and goals provided for in the Plan are recommended rather than legally binding. Although violators cannot be legally penalized, the development of a culture of environmental responsibility and the recognition of Rights of Nature among community members can provide for compliance, without the threat of punishment. The framework integrates cultural values and sets a precedent for a balanced relationship with nature and a respect for the ecosystem integrity.

Appendix G: The Concept of Guardians Already Exists

Part A: What guardianship looks like in New Zealand

1. Te Urewera National Park

New Zealand granted personhood to the land of Te Urewera, a former National Park that makes up 821 square miles on the North Island of New Zealand. This unprecedented designation of land as a legal person, with the associated rights of a person, is a major advancement in the Rights of Nature.

Te Urewera is a legal entity, and has all the rights, powers, duties, and liabilities of a legal person. “[T]he rights, powers, and duties of Te Urewera must be exercised and performed on behalf of, and in the name of, Te Urewera...by Te Urewera Board.” The Te Urewera Board is therefore “responsible for protecting the entity and its rights.”

The Board's purposes are statutorily defined as:

1. to act on behalf of, and in the name of, Te Urewera; and
2. to provide governance for Te Urewera in accordance with the Act

The Board is responsible for drafting and approving a management plan for Te Urewera and functions “to promote or advocate for the interests of Te Urewera in any statutory process or at any public forum.” In terms of powers of the Board, “The Board has full capacity and all the powers reasonably necessary to achieve its purposes and perform its functions. The Board is made up of eight members, and for 3 years there will be 4 representatives of the Tūhoe and four Ministers, and after that there will be 6 representatives of the Tūhoe and three Ministers for a total of nine Board members.

In developing the management plan, the Board must include the following:

- (a) state the objectives and policies for the integrated management of Te Urewera; and
- (b) identify relevant values at places within Te Urewera, including values relating to—
 - (i) indigenous species, habitats, and ecosystems; and
 - (ii) cultural and historical heritage; and
 - (iii) recreational values; and
 - (iv) scenic, geological, soil, and landform features; and
 - (v) freshwater fisheries and freshwater fish habitats; and
- (c) identify the outcomes planned for specified places within Te Urewera—
 - (i) that are consistent with the values under paragraph (b); and
 - (ii) that take into account relevant national species recovery and management objectives; and
- (d) explain how any conflicts between planned outcomes will be resolved; and
- (e) identify any effects of activities undertaken within Te Urewera and explain how adverse effects are to be minimised; and
- (f) identify any places in Te Urewera that have been given international recognition in agreements ratified or given legal standing in New Zealand and provide for the

management of those places accordingly, where this is consistent with the purpose of this Act; and

(g) identify whether there is a need to create specially protected areas, wilderness areas, or amenity areas; and

(h) identify the criteria for decision making in respect of Te Urewera, including decisions on applications for activity permits and concessions; and

(i) identify what regular monitoring and evaluation of Te Urewera ought to be undertaken; and

(j) identify the matters proposed to be regulated by bylaws.

As a National Park on land, Te Urewera provides a precedent for the Earth Law Framework as it applies toward a marine Park.

2. Whanganui River

Under the Tutohu Whakatupua Treaty Agreement, the Whanganui River is given legal status under the name Te Awa Tupua. Te Awa Tupua is recognized as “an indivisible and living whole” and “declared to be a legal person.” Two guardians, one from the Crown and one from a Whanganui River iwi (the local indigenous group), will be given the role of protecting the River. This treaty is especially important because it “recognises the intrinsic interconnection between the Whanganui River and the people of the River (both iwi and the community generally),” and finds “the health and wellbeing of the Whanganui River is intrinsically interconnected with the health and wellbeing of the people.”¹⁹⁴

The Law states that the guardians, or Te Pou Tupua, are responsible for acting on behalf of the entity Te Awa Tupua: “all the rights, powers, and duties of Te Awa Tupua must be exercised or performed by Te Pou Tupua.” The Law goes further into detail about how these guardians are supposed to represent the interest of Te Awa Tupua:

(1) The functions of Te Pou Tupua are—

(a) to act and speak for and on behalf of Te Awa Tupua; and

(b) to uphold—

(i) the Te Awa Tupua status (this refers to legal status as a person); and

(ii) Tupua te Kawa (these are the intrinsic values laid out in the framework below); and

(c) to promote and protect the health and well-being of Te Awa Tupua;

(2) Te Pou Tupua, in performing its functions,—

(a) must act in the interests of Te Awa Tupua and consistently with Tupua te Kawa (the intrinsic values):

(b) must develop appropriate mechanisms for engaging with, and reporting to, the iwi and hapū with interests in the Whanganui River on matters relating to Te Awa Tupua, as a means of recognising the inalienable connection of those iwi and hapū with Te Awa Tupua:

(c) may report publicly on matters relating to Te Awa Tupua:

(d) may engage with any relevant agency, other body, or decision maker to assist it to understand, apply, and implement the Te Awa Tupua status and the Tupua te Kawa, including (if Te Pou Tupua and the agency, body, or decision maker agree) by developing or reviewing relevant guidelines or policies:

(e) may participate in any statutory process affecting Te Awa Tupua in which Te Pou Tupua would be entitled to participate under any legislation.”

As a whole and indivisible ecosystem, the Whanganui River and its legal framework also provide great precedent for the application of legal rights and guardians to marine protected areas.

Part B: Trusteeship in the United States

The concept of “guardians” for nature is not new. In fact, this concept is already embedded within our system in the form of trusteeship and this system can be used to advance the legal framework to provide for legal guardians.

For example the

“United States Congress can authorize a “trustee” for nonhumans, with express power to take legal or administrative action to protect their beneficiaries. Current law does just that, requiring the President to designate those federal officials who are to act on the behalf of the public as trustees for “natural resources” that fall under federal sovereignty. Where damage occurs to natural resources, the trustee may be empowered to carry out damage assessments, and to devise and carry out a plan for restoration, rehabilitation, replacement, or acquisition of equivalent natural resources.”

The Public Trust Doctrine, National Environmental Policy Act and the Marine Mammal Protection act provide examples of our current use of “trusteeship.”

- The Public Trust Doctrine provides that States are trustees of public resources. It is “[t]he principle that certain natural and cultural resources are preserved for public use, and that the government owns and must protect and maintain these resources for the public's use;”¹⁹⁵
- The purpose of the National Environmental Policy Act (NEPA) is to “encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man.”¹⁹⁶ It is the Federal Government’s responsibility to “use all practicable means and measures” to “fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.”¹⁹⁷ The Council on Environmental Quality is responsible for carrying out the Act to “develop and recommend to the President national policies to foster and promote the improvement of environmental quality to meet the conservation... goals of the Nation;”¹⁹⁸ and

- “Whales and their supporting ecosystems fall under the trusteeship of the National Oceanic and Atmospheric Administration. For example, if whale watchers harass whales, NOAA has express standing to institute administrative action (civil penalties). If toxic releases damage the whale-supporting ecosystem, it would be in the province of NOAA to refer the matter to the Department of Justice to litigate.”¹⁹⁹ The Marine Mammal Protection Act provides that “measures should be immediately taken to replenish any species or population stock which has already diminished below that population. In particular, efforts should be made to protect essential habitats, including the rookeries, mating grounds, and areas of similar significance for each species of marine mammal from the adverse effect of man's actions.”²⁰⁰ The Marine Mammal Commission acts as a trustee by “recommend[ing] to the Secretary and to other federal officials such steps as it deems necessary or desirable for the protection and conservation of marine mammals.”

Appendix H: Suing on Behalf of Nature

A successful case in Ecuador required the government of Loja to create and implement a remediation and rehabilitation plan for restoring the Vilcabamba River after a road-widening project was found to have destroyed its processes. The project was found to have disfigured the banks and altered the rivers flow in a way that violated both the River's rights to "be fully respected in its existence and maintenance of its vital cycles, structure, functions, and evolutionary processes."²⁰¹

The Provincial Court of Loja ruled in favor of the Vilcabamba River, granted an injunction and established:

1. "The suitability and efficacy of the Constitutional injunction as the only way to remedy in an immediate manner the environmental damage focusing on the undeniable, elemental, and essential importance of nature, and taking into account the evident process of degradation;
2. That, based on the precautionary principle, until it is objectively demonstrated that the probability of certain danger that a project undertaken in an established area does not produce contamination or lead to environmental damage, it is the responsibility of the constitutional judges to incline toward the immediate protection and the legal tutelage of the rights of nature, doing what is necessary to prevent contamination or call for remedy. Note, that we consider in relation to the environment that one act not only under the certainty of damage but its probability;
3. The recognition of the importance of nature, raising the issue that damages to nature are generational damages, defined as such for their magnitude that impact not only the present generation but also future ones;
4. That, using the principle of inversion of the burden of proof, the plaintiffs should not have to prove the existence damages but that the Provincial Government of Loja, as the entity that administers the activity and as the defendant, had to have provided certain proof that the widening the road would not affect the environment;
5. That the argument of the Provincial Government that the population needs roads does not apply because there is no collision of constitutional rights of the population, nor is there any sacrifice of them, because the case does not question the widening of the Vilcabamba-Quinara road, but the respect for the constitutional rights of nature."

The Provincial Court of Loja established the following means of reparation:

1. "The Provincial Government of Loja must present within thirty days a remediation and rehabilitation plan of the areas in the Vilcabamba River and the populations affected by the lateral dumping and accumulation of rubbish material from the project, as well as comply with the recommendations of the environmental authority;
2. The Provincial Government of Loja must immediately present the environmental permits for the construction of the road to the Ministry of Environment;

3. The implementation of corrective actions such as: construction of security bunds to prevent oil spills in the soils around the fuel storage tanks and machinery; cleaning of the soils contaminated by fuel spills; implementation of an adequate road sign system; and, creation of a location to store the rubbish from the construction;
4. The Provincial Government must comply with each and every one of the recommendations made by the Sub Secretary of Environmental Quality of the Ministry of Environment;
5. The creation of a delegation composed of the Regional Director of the Ministry of Environment and the Office of the Ombudsman from Loja, el Oro, and Zamora Chinchipe to provide follow up on the fulfillment of the ruling;
6. The defendant must publically apologize on one-fourth of a page in a local newspaper for beginning construction of a road without the necessary environmental license.”

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