

NATURE'S TRUST

Keynote Speech for the Ideas Matter Lecture Series

Oregon State University

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I want to thank Kathleen Dean Moore and Charles Goodrich for inviting me to speak as part of your series. It is a such a privilege to be here with you all tonight. I hope to bridge your two series – one focusing on Responsibilities to Future Generations, and the other on oceans. Let me start by describing what I call our new reality, and then I will talk about how our environmental law has delivered us this new reality and what we can do to shift course.

I.

To begin with the oceans, if you take a voyage through recent newspaper articles on the subject of marine health, you find them describing oceans that are much different than the ones we knew growing up. At Midway Atoll, halfway between North America and Japan, the corpses of 200,000 dead albatross chicks speckle the rookery. Their little gullets are filled with plastic Legos, bottle caps, and Styrofoam balls that their parents plucked from the ocean because they resembled food. A thousand miles off the coast of California floats a garbage island twice the size of Texas. It's comprised of plastic bags, bottles and wrappers, the kind we discard without thinking every day. In 2006, in Moreton Bay, Australia, toxic fireweed spread across the bottom of the sea at a rate covering the size of a football field every hour. When fishermen touched it, their skin

broke out into blistering welts, and their eyes burned and swelled shut. Thousands of miles away on the Florida Gulf Coast, a red tide shows up about once a year and persists for months. When it lands on the beaches, ocean breezes pick up the toxic wafts and bring them inland to waterfront communities, sending victims to the hospitals with pneumonia, asthma, and bronchitis. In the spring of 2010, the world watched helplessly over the course of 87 days as 124 million gallons of oil gushed from the sea floor into the Gulf of Mexico as a result of British Petroleum's deep sea drilling, leaving hundreds of miles of shoreline oiled; tens of thousands of square miles closed to fishing; thousands of marine mammals, fish, birds and turtles dead, and the saltwater laced with millions of gallons of chemical dispersant.

Off the coast of Oregon in the summer, a dead ocean zone now stretches over an area the size of New Jersey. Thousands of crab skeletons drift in the lifeless waters in a scene that resembles an underwater graveyard. Scientists think the phenomenon is now irreversible. There are now 200 "dead zones" in the world's oceans, collectively spanning tens of thousands of square miles.

In New England, families that fished for generations have retired their boats and their livelihoods. The oyster fishery, once supporting a catch of millions of pounds a year, has collapsed, and 85 percent of the oyster reefs are gone. Across the planet, nearly one-third of the sea fisheries have collapsed; big fish populations have fallen 90 percent over the last fifty years. Yet, far out to sea, ocean fishing trawlers scrape the bottom of the ocean in half-acre swaths, hauling in catches indiscriminately, as if the marine life were inexhaustible. Marine biologists project the complete loss of wild seafood just four

decades from now if trends continue. That would be the end of an entire food group that humans have relied on since time immemorial.

All over the world, nitrogen and phosphorous compounds wash into the bays from septic tanks, farms, and sewers. Every day, ocean water absorbs millions of tons of carbon dioxide emitted from industrial chimneys, coal-fired plants, and cars. The oceans are acidic due to high levels of absorbed carbon dioxide, and some sea water is now so corrosive that it dissolves the shells of sea creatures, posing “potentially catastrophic consequences for marine life.” Twenty percent of the coral reefs—which are the biodiversity treasure chest of the ocean—have disappeared, and marine scientists project that 60 percent of them could die within just 19 years.

These human assaults have transformed the chemistry of the seas, creating what LA Times reporter Kenneth Weiss describes as “a virulent pox on the world’s oceans.” The massive pollution of the ocean waters, combined with the overharvest of major predator fish species and destruction of shoreline, have all toppled the ocean balance, allowing ancient forms of bacteria to thrive and proliferate as if the seas were returning to a primeval state. In the words of one scientist, the world’s oceans are fast succumbing to “the rise of slime,” regressing back to “a half-billion years ago when the oceans were ruled by jellyfish and bacteria.”

That’s not all. On every level, ecosystems around the world are failing or collapsing. Conservation biologists say that Humanity has triggered the sixth mass extinction in the planets’ history. Climate scientists warn that our carbon pollution (70 million tons a day) has put us at the brink of a tipping point that will cause runaway heating and, in their words, a “transformed planet.” Another way of looking at this is

that, at the current rate of destruction, Humanity would need two planets by 2030 to support our modern, industrialized, convenience-driven lifestyle. That's just 19 years from now.

There is an entire body of collapse scholarship now emerging. These writers no longer concern themselves with isolated problems—a polluted river here, a threatened species there, a threat of a toxic release on the horizon. Instead, they are focusing on the big picture, the reality-changing kind. Humanity is exhausting life-sustaining natural resources at a pace that threatens the survival of citizens, and indeed, the future of civilization itself. As James Gustave Speth, a former at Yale University, writes in his book, *THE BRIDGE AT THE EDGE OF THE WORLD*, “[W]e’re headed toward a ruined planet.” He says, “[If we] keep doing exactly what we are doing today, [even] with no growth in the human population or the world economy . . . the world in the latter part of this century won’t be fit to live in.”

Fellow citizens, this is not some science fiction movie. This is our new reality. Our very life-support systems (like the oceans, the atmosphere, the forests, and the species) are now in failure mode because of our lifestyle, and this threatens the future of human life on the planet. There is no way I can sugar coat this situation. This is no longer some sort of remote, distant issue. As Bill McKibben describes in his new book *Eaarth*, we are living on a planet that is suddenly and violently out of balance. If you have children or grandchildren and you are not waking up in the middle of the night terrified about their future, you probably haven’t put all the pieces together.

Now there are those who would tell me to put a smiley face on this picture. They say the public can swallow only happy news. So, we should speak of green collar jobs and green technology and new efficiencies in production.

But, instead, I tend to agree with David Orr's statement in his book, *Down to the Wire*, that we should confront people with the hard facts, and then build authentic hope from that. Authentic hope, he says, "has to hustle, scheme, make deals, and strategize. Authentic hope recognizes the dire circumstances we face, and then builds heroic courage from the most daunting reality. David Orr celebrates the capacity of people to act creatively and courageously in face of extreme adversity. So do I.

The children of this Earth need all of you become planetary heroes.

Now what is hard about this is that most Americans are still living in a vanished reality. Over the course of our lifetime, we've somehow all been lulled into thinking that there is good collateral behind the mounting ecological debt we accrue every day. We harbor this vague belief that Nature is so resilient; it can't go bankrupt on us. For decades, even marine biologists failed to see the big picture of ocean health, focusing instead on isolated outbreaks of toxic tides, dead zones, and species decline. They assumed the oceans would spring back to life again. I read about one scientist who, now late in his career, lamented, "Why did I get it wrong?"

We can ask the same of ourselves. But, remember, no one ever guaranteed us that a lifestyle of colossal waste and pollution and resource consumption could continue indefinitely without consequences to our own species.

Indigenous cultures worldwide have a principle they call natural law which you might think of as the laws of Nature (not to be confused with the

Catholic principle). How many of you wake up and think of the Laws of Nature as you enter a new day? Probably not many of us, and that is a problem. Natural law has guided the traditional indigenous approach to ecological management for thousands of years. Oren Lyons, who is a member of the Onondaga Nation Council of Chiefs, said in an interview a couple of years ago: “The thing that you have to understand about nature and natural law is, there's no mercy....There's only law. And if you don't understand that law and you don't abide by that law, you will suffer the consequence.” He points out that there is no negotiating with Nature. “Whether you agree with it, understand it, comprehend it, it doesn't make any difference. You're going to suffer the consequence, and that's right where we're headed right now.”¹ Oren Lyons would probably look at the ocean crisis and tell us, you can't negotiate with slime.

II.

I have taught environmental law for the past 20 years. When I think of the purpose of environmental law, it all boils down to one thing: it's supposed to keep society in compliance with natural law, or the laws of Nature. If environmental law becomes unmoored from Nature's laws, or ineffective in assuring Humanity's adherence to such laws, society will eventually collapse—and environmental law, no matter how seemingly complex or sophisticated, will have been irrelevant. We live in a time of planetary emergency, yet environmental lawyers and regulators are still doing things very much the same way they did things 30 years ago. Environmental law today has taken a

¹ Id.

major detour away from the laws of nature, and it's driving our society towards an unforgiving cliff.

In his landmark book, *COLLAPSE*, Jared Diamond writes about that major societies of past civilization that collapsed precipitously when they grossly exceeded Nature's limits. And he asks why the governing structure of those societies allowed that mismatch between human behavior and natural law to reach disastrous proportions. Diamond concluded that there is usually a conflict of interest between the short-term goals of the decision-making elite and the long-term interests of the society as a whole. It is not uncommon, he said, for the ruling elite to pursue goals that are "good for themselves but bad for the rest of the group," leading society on a track that is doomed for collapse. He gives the Greenland Norse as an example. In that society, the controlling chiefs sought more power, so they accumulated more sheep in order to outcompete their neighboring chiefs. Their short-term self-interest led to severe overgrazing. What made the chiefs more powerful in the short run triggered society's collapse in the long run.

Throughout the world today, the relevant decision-making elite consists not of ruling chiefs with sheep herds, but rather thousands of bureaucrats sitting in environmental agencies in countries throughout the world, armed with laws that collectively govern Earth's natural resources. If these officials make decisions to promote their own short-term interests rather than the long-term good of the citizens they serve—as in the ruined societies that Diamond inventories—our collective future is in dangerous hands.

So let's look at the structure and function of that bureaucracy in our country. The United States has the most elaborate and convoluted set of environmental laws in the

world. Though directed at different problems, nearly all environmental statutes have one thing in common: they rely on agencies to carry out their mandates. You see, all of Nature has been partitioned among various bureaucracies—many hundreds in all, spanning the federal, state, and local levels. These agencies are supposed to protect the natural resources for present and future generations. But nearly all laws have a permit provision by which agencies can approve damage to Nature. The permit provisions were never intended to swallow the statutes, but they have. The bulk of the agencies' work today is issuing permits or blanket approvals for pollution and destruction of natural resources. In surveys across a multitude of agencies, you see that only about 1 % of the permits are denied. Congress and state legislatures gave these agencies tremendous discretion, because they are expert bodies, and they are assumed to exercise their judgment in an objective manner, for the good of the public and in accordance with the statutes' goals. But this agency discretion has been corrupted, and its role in the modern demise of Nature cannot be overstated.

Over the last four decades since the major laws were passed, nearly all environmental professionals, including law professors, have assumed that his system is functional. And many other nations, following the lead of America, have adopted the same administrative construct to regulate their environmental resources. But, frankly, the entire environmental administrative state is an experiment, and we are just now seeing how dangerous the effects can be.

A good many environmental litigators, scholars, and decision-makers will adamantly defend the system. They say that the statutes are working, and they point to key successes in every statutory context. They will point out that the rivers are not

catching fire any more. Lead has been taken out of gasoline. CFCs are banned. The pesticide DDT no longer poisons eagles. Influenced by these perceptions of success, when new problems come along, lawyers tend to turn to the same way they have been doing things for four decades. For example, the primary legal strategy to fight global warming centered on filing a petition with the Environmental Protection Agency under the Clean Air Act to regulate carbon dioxide. Now that seemed pretty straightforward – ask the agency charged with regulating air pollution to do its job. But this strategy also presumes that the agency is dedicated to the public interest and not is not a handmaiden for the fossil fuel companies. Well, 12 years have passed since that Clean Air Act petition was filed, and the federal government has still not acted to control greenhouse gas pollution, even though scientists clearly warn that any further delay could cause runaway planetary heating and threaten future civilization on Earth.

It is telling that the most accelerated damage to Earth's resources has occurred during the modern era of environmental law, that is, since the 1970s. Overall, according to various assessments, the Earth's natural ecosystems have declined by 33 percent during the last thirty years. Would we be worse off without environmental law? Almost certainly yes, but that's not the relevant question. The only relevant question is whether environmental law is doing its job to keep us in compliance with Nature's laws. To be sure, there are successes here and there, but the successes are relative, and most are dwarfed by cumulative damage. For example, the Clean Air Act has been partly successful in controlling the eight "criteria pollutants," things like carbon monoxide and particulate matter, but it does nothing to protect citizens against tens of thousands of airborne toxins that pose cancer and other health risks. Industrial activity has outpaced

the ability of environmental law to protect resources. With new machinery, chemicals, and genetic engineering, industry has reached a whole new level in Earth-annihilating ability. As currently administered, environmental law is the cane on which Humanity leans as it walks the plank towards its own destruction.

You see, though there are some exceptions, the agencies are perpetrators of legalized destruction. They use the permit provisions that are contained in every statute to authorize colossal damage. For example, two-thirds of the greenhouse gas pollution in this country is emitted pursuant to government-issued permits. The pollution of rivers, the killing of species, and the destruction of wetlands and coastal zones are all carried out pursuant to permits or blanket regulation under environmental statutes. Environmental law also legalizes the outright poisoning of the United States. Between 2001–2007, industries released 31.7 billion pounds of toxins into the environment, mostly pursuant to pollution permits. The overarching bureaucratic mindset of most agencies is that permits are there to be granted.

As Gus Speth writes,

[T]here is now proof that today's environmentalism doesn't work well enough. A great experiment has been conducted. The evidence is in. Current approaches have been tried for almost four decades. And look what has happened. We have won many victories, but we are losing the planet. It is important to ask why.

When you explore the dynamics behind agency decision-making, you quickly find that bureaucratic discretion has become an open invitation for agency heads to politicize decisions for their short-term interests. As Jared Diamond warned in his

inventory of collapsed societies, we should be wary of the decision-making elite who make decisions to further their own short-term interest rather than the long-term interest of society as a whole. If you read in-depth studies of this, and there are many, I think you would find that the pursuit of self interest by some agency heads would surely rival that of the Norse sheep lords in *Collapse*. The same motivations that caused the Forest Service to scathe the last of the ancient forest in the Pacific Northwest moved the U.S. EPA to permit arsenic and other poisons in drinking water, and they prompted city officials nationwide to allow suburban sprawl, and they moved state water agencies across the West to over-appropriate rivers until some ran dry, and these same pressures drove the Corps of Engineers to issue endless permits for wetlands destruction, and they prompted the U.S. Fish and Wildlife Service to approve projects that would push a species closer to extinction; and these are the same dynamics that have kept the U.S. EPA from regulating carbon dioxide pollution even in face of clear evidence that our planet is heating to dangerous levels. And if you read Paul Vandavelder's expose in last Sunday's Oregonian regarding the Columbia River salmon, you see these same forces causing the National Marine Fisheries Service to issue a biological opinion that is actually no better than the ones issued under George W. Bush.

The very worrisome part of this is that these dynamics persist at all levels of government, and do not go away even with changes in political administrations, though some are more blatantly corrupt. We often think of corruption as money handed under the table to an official to make a decision benefiting some private interest, but in fact there are many shades of corruption and many backdoor venues of corruption in the administrative process. This is my definition of corruption: If an agency acts for any

other reason than to carry out the public interest as embodied in the statute, it is corrupt, because it is not carrying out the law it was entrusted to carry out.

Why does corruption, so defined, seep into agency decision-making with such regularity? It is worth stating the obvious here: big money is at stake in most environmental and land use decisions. This fact alone gives industries strong incentives to control the regulatory process. In fact, doing so becomes an standard part of corporate business. It's called "regulatory affairs." So industry groups mount ruthless anti-regulatory campaigns directed at agencies that hold permitting authority under environmental statutes. The big corporations keep a full envoy of industry mercenaries -- lobbyists, lawyers, consultants, and public relations agents -- to muscle the agencies to their advantage in specific contests over environmental resources. Environmental law has become industry's tool of sanctioning generational theft.

Inside the walls of bureaucracy, the powerful regulated industries often have political loyalists doing their bidding. Of course, examples abound from the Bush II administration. Mark Rey, who was put in charge of the Forest Service, had devoted his entire previous career as a lawyer- lobbyist for the timber industry. This is the guy who industry hired to devise a strategy to legalize the clear-cutting that razed Pacific old growth forests. Individuals like Mark Rey tend to bring two characteristics to the job. First, they show a supreme loyalty to their former clients and a profound disloyalty to the public. Second, since they have devoted prior careers to manipulating the law, they know how to transform the law in quite subtle ways -- with surgeon's skill -- to benefit the industries they just left. They are the most dangerous operatives in agencies today, and they fill many ranks across the state agencies and at the federal level. But even the clean

political appointees face a wall of pressure once they get in office. Senators regularly bully political chiefs into bending their scientific decisions to further their political goals.

Once political commands are in place, it is easy to manipulate the administrative decision to carry them out. Agency bosses have, at times, edited government reports to create a favorable “spin” for industry, suppressed testimony of staff scientists, muzzled technical staff from speaking out to the press, and even changed technical determinations under permit processes to avoid or delay regulation. The technical staff and scientists in some agencies work under highly coercive conditions, in which they are forced to justify decisions against the public interest or risk losing their jobs. In some agencies, the invisible hand of industry is pervasive, regularly hijacking the process to subvert the environmental protection goals of the statutes. The problem is not limited to one administration. Institutional rot still taints the Obama agencies. When an agency is captured by the industry it regulates, the full force of law is regularly deployed against the public interest, and corruption takes on an institutionalized form. Well-intentioned government employees in these agencies may fail to see this sinister progression, because it is usually incremental, and the outward appearance of law doesn’t change at all.

Untangling the corruption or other misuse of office is notoriously difficult. A thick scientific and technical façade usually conceals internal political drivers. To make matters worse, the judiciary has lost its potency as a check on the administrative branch. Courts invoke what we call the administrative *deference* doctrine, which allows them to give undue weight to agency decisions. Most judges still operate on the simplistic and misguided assumption that expert agencies are neutral decision-makers faithfully implementing the statutes. So

they fail to rigorously examine any improper influences or conflicts of interest that may have shaped the agencies' scientific conclusions. This nation is supposed to have three branches of government, not one. Without any real accountability in Congress or the courts, the Executive branch of government at both the federal and state levels enjoy an administrative tyranny over Nature.

Ultimately, of course, the voting public represents a last bastion against a tyrannical power grab by one branch of government. Imagine, if our government allowed corporations to raid the Social Security Fund -- there would be an American uprising over the theft of citizen property. Yet under the guise of environmental law, government legalizes astonishing public property damage in the form of razed forests, toxic watersheds, ocean dead zones, suburban sprawl, decapitated mountains, ocean oil geysers, vanished species, dammed up rivers, and climate crisis. Environmental law houses a den of thieves, but the public perceives no theft. Instead, environmental law readily legitimizes the horror of it all. How?

I attribute this to the social frame within which environmental law operates. This is a political frame with four sides: discretion, discretion, discretion, discretion. Within this frame, Nature is merely some amorphous background that corporations can lawfully pollute and eradicate as long as they have government's permission. The frame obscures any legal obligation on the part of government to safeguard the inherited natural wealth that should pass down through the generations of citizens. The frame does not speak of any public property rights that government must respect. The only property rights recognized in this frame are private property rights held by corporations and individuals.

Indeed, social frames are powerful, because they influence people's perception of

reality. As George Lakoff writes: “Frames . . . shape the goals we seek, the plans we make, the way we act, and what counts as a good or bad outcome” This current environmental frame is astonishingly powerful in its capacity to legitimize breathtaking oppression of human beings and their fellow species on Earth. The legalized plundering of Nature’s priceless assets by corporations provokes only dim outcry from the public.

The frame legitimizes even the most horrific outcomes by explaining them as “political reality.” A familiar set of excuses whines through the halls of agencies and legislatures with regularity: “We could not get a climate bill passed; the political support just wasn’t there.” “We can’t bring an enforcement action against that company – heads would roll.” “Public resistance to regulation is too great; we did as much as we could.” It is as if the law no longer matters. The “political reality” characterizes the result of environmental contests as legitimate, even if the outcome flies in the face of statutory purposes and threatens members of the public. The “political reality” is remarkably effective in bringing lower-ranked agency staffers into compliance with the corporate political agenda of the agency – often despite their deep reservations and best intentions to the contrary. The “political reality” is a potent tranquilizer for the public – after all, who can argue with reality? It produces a demoralized, submissive, and passive public.

What about the environmental groups, you might ask. Well, to a great extent, citizen environmental democracy has fallen into the foster care of national groups who present an institutionalized form of advocacy. These groups do much good, especially in tracking government actions, but they also operate in a way that perpetuates, rather than confronts, the very dysfunction that grips the entire system. Citizens purchase their political participation in environmental disputes through membership in these groups

instead of dedicating the countless hours it would take for actual participation. While understandably a necessary response to modern time pressures, this phenomenon has marginalized citizens.

The national environmental groups also tend to drain issues of the passion that would normally arouse a citizen's emotional dedication to Nature. In their alerts and advocacy statements, environmental representatives speak very much as the bureaucrats do. They eschew the heart-felt words and sheer outrage that can unlock the protective impulses of citizens. These groups rarely convey the full violence done to Nature, or to communities, or to families, or to innocent children. Instead, they frame all manner of transgressions as procedural harms – the failure to consult, the failure to produce a plan, the failure to enact a regulation. As Ross Gelbspan says in *Boiling Point*, “What is missing from virtually all these group is an expression of the rage they all feel.” One can hardly blame the professional environmental advocates. They don't wish to be perceived as zealots and lose credibility. But in their aim to be conventional, they have over-sterilized their discourse, so that their bureaucratic-style advocacy anesthetizes the citizens to the gross injustice and outright peril caused by modern governmental environmental decision-making. The environmental groups do nothing to change the social frame that legitimizes environmental law's generational theft.

So, to summarize, we have a real problem on our hands. The environmental law system legalizes colossal damage and institutionalizes a marriage of power and wealth behind the veil of bureaucratic formality and scientific objectivity. After four decades of this, Humanity has no more time to waste in confronting the corruptive influence on agencies, the politicization of science, the role of agency discretion in allowing damage

to the environment, the failure of public process, and the shriveled role of the judicial branch in reviewing agency decisions.

So how do we proceed? Do we pass a set of new laws across the board? Congress can't manage to pass even one law. And passing new laws will not solve the problem. The problem lies with the frame in which these laws are administered. This is also a much bigger problem than environmental law. It concerns our life ways, our economic institutions, our world view, and our moral code of conduct as individuals. We have to somehow realign human society with Nature's laws and concern for future generations, and that's really a task that goes beyond environmental law. The challenge is to create a full paradigm shift across all realms—the legal, economic, social, and moral. We must imagine a frame so compelling that it will steer governments, communities and individuals world-wide into remaking the means of our existence on planet Earth. George Lakoff says, "Changing the frame means changing what counts as common sense." We must do nothing less than re-define common sense in this new reality we find ourselves a part of.

III.

What I find so amazing about the time we live in is the renaissance of thinking that I'm observing across all of the disciplines. There are many true visionaries who now question the features of industrial society that have brought us to this point of calamity. I see people in the fields of business, economics, education, industrial design, urban planning, and religious studies who are fully engaged in the heroic mission of remaking society. And out of this flurry of transformative proposals is a convergence of values that galvanize concern for our children, our fellow species, our planet, and our future

generations. Moreover, these values come with a new social consciousness, a concern for equity, justice, and for people struggling in poverty. It seems to me that common sense is going through a rebirth.

Of course, we still suffer under the hegemony of massively powerful corporations that rule the world through government instrumentalities. But these renaissance ideas are igniting the passions of citizens worldwide and they are galvanizing a planetary patriotism so sweeping and powerful because it transcends borders and cultures and religions. Paul Hawken describes it in his book, *Blessed Unrest*.

So what I hope to do is create, within the realm of environmental law, a new frame that can harness the energy of this global movement, because nothing less than a tidal wave of citizen passion will redirect government towards protecting the public interest. I have devised a frame change that I call Nature's Trust. It rests on a bedrock principle that we already have in our legal system known as the public trust doctrine. The public trust was adopted by courts in the earliest days of our nation for the purpose of holding government accountable in protecting ecology, but it has been all but lost in the administrative jungle that has choked the field of environmental law over the last three decades.

This trust principle is ancient in origin, dating back to Roman law, and it has powerful analogues in indigenous cultures that have lived sustainably for millennia. The principle says that government holds our priceless natural assets in trust for present and future generations of citizens. A trust is a property construct whereby one manages assets for the benefit of another. You are all familiar with private trusts – imagine a college account held in trust for your niece. Under the public trust construct, natural

assets that are crucial to society's well-being are the property of the people – the nation's commonwealth – and they are managed by government according to strict fiduciary principles.

This public trust doctrine is manifest in hundreds of judicial opinions world wide. It springs from an early civic and judicial understanding that some natural resources are so vital to public welfare and human survival that they cannot be given over to private property ownership and control. Instead, government holds these crucial natural resources in trust for the public – both present and future generations of citizens. The concern for future citizens lies at the core of the trust, and in fact, this is the only legal doctrine in environmental law that actually accords rights to future generations.

With every trust, there is a core duty of protection. The trustee must defend the trust against injury. And government cannot just decide to ignore the trust. As the Supreme Court said back in 1892: “The state can no more abdicate its trust over property in which the whole people are interested . . . than it can abdicate its police powers in the administration of government” So you can see that the public trust doctrine is the very antithesis to the political discretion that infects so many agency decisions today. Trustees have an overriding duty to protect the assets of the trust -- despite the “political reality.”

These trust principles have been said to “exist from the inception of humankind.” They lie at the very heart of government's purpose, and you can understand why, because any government that fails to protect its natural resources sentences its people to misery. Remember the societies in Jared Diamond's collapse. The trust is designed to ensure that the ruling class makes decisions to keep society in compliance with Nature's own

laws. As the Philippines Supreme Court declared in a landmark trust case that stopped all logging in the country: “[T]he right to a balanced ecology . . . concerns nothing less than self-preservation and self-perpetuation . . . the advancement of which may even be said to predate all governments and constitutions.” The public trust doctrine has marinated in countless forms of government through the ages of Humanity. A colleague of mine describes the public trust as “legal DNA.” The roots and reasoning of the public trust put it on par with the highest liberties of citizens living in a free society.

In this country, Nature’s Trust principles were penned by judges long ago as the first environmental law of this nation. We can take our environmental laws, and without changing a word of them, reframe our government’s role with respect to Nature. By reframing, we can turn the government’s political discretion to *destroy* Nature into an legal, property-based obligation to *protect* Nature. As a matter of property law, trustees are bound by strict fiduciary standards of protection. The integral power of a trust frame is that it re-defines “reality” and provides a new lens through which to assess whether government outcomes are legitimate.

The lodestar public trust opinion in this country is *Illinois Central Railroad Co. v. Illinois* (Illinois Central). In that case, the Illinois legislature had given away the shoreline of Lake Michigan to a private railroad corporation, no doubt a result of political corruption. The U.S. Supreme Court said, the legislature didn’t have the power to do that. It held that the shoreline of Lake Michigan was held in public trust by the State of Michigan, and as trustee of this priceless asset, government must protect it for the public and could not give it away to a private entity. The lakebed, it said, was “a subject of public concern to the whole people of the state” and therefore could not be alienated.

The essence of this doctrine requires management of natural resources for public benefit rather than for private exploit or political advantage. Simply stated, government trustees may not allocate rights to destroy what the people rightly own for themselves and for their posterity. Just as the trust would not allow the Illinois legislature to privatize the shoreline of Lake Michigan, the trust would not allow agencies to privatize all of ecology by issuing hundreds of thousands of permits to pollute.

Trust principles also impose a strict duty of loyalty to the public beneficiaries. When agency officials act in self-interest to benefit a politically powerful corporate interest over the public, or to advance their own bureaucratic ambition, they violate this basic fiduciary duty of loyalty. What is viewed within the agencies as “political reality” would be viewed through a trust frame as extraordinary fiduciary transgressions. You can see how this trust frame re-positions all players in their relationship to ecology. It conceives of government officials as public trustees, rather than as self-interested, disloyal officials. It describes the citizens as beneficiaries holding a clear public property interest in natural resources, rather than as weakened political constituents with increasingly pathetic appeals to beg of their public officials. It views polluting corporations as marauders of the trust rather than as powerful political “stakeholders” that control the political sphere. And it presents Nature as a priceless endowment comprised of tangible, quantifiable, assets holding value for future generations rather than a vague “environment” possessed of rather intangible and indeterminate value.

At a time when the nation’s ecological assets are under siege by corporations, and virtually all levels of government are accomplices in irrevocable, planet-threatening natural loss, the trust framework is designed to arrest Nature’s bankruptcy and rebuild

squandered natural wealth. It is perhaps not surprising, then, that this public trust doctrine is evident in most countries of the world. As Professor Karl Coplan writes, “Public trust principles have been described as an essential attribute of sovereignty across cultures and across millennia.”²

A trust re-framing demands an end to the permit system as presently administered in this country. We have long passed the point at which agencies should have drawn the line against pollution. Rather than bankrupting the people’s trust, they should be using our tax dollars to rebuild it. The vast majority of the permits should be phased out, and the administrative resources and expertise redirected into restoration projects, which create wealth for society. Some of you might think that ending all pollution is a far-fetched idea, but that is exactly what Congress had in mind when it passed the Clean Water Act. The Clean Water Act declared a national goal of eliminating the discharge of pollution into the navigable waters by 1985. That’s why the permit system was called the National Pollution Discharge *Elimination* System. Permits were intended as a transition tool to allow industries to move orderly into a full phase out of their pollution.

Of course, once we call for an end to pollution, we engage many questions, most of which we don’t have time to entertain tonight. There will surely be those who say that terminating permits would put industry out of business and trigger economic collapse. The fact is, our economy seems quite capable of collapsing without the intervention of environmental law. But in any event, new thinking in the business and industrial design fields presents the model of pollution as sorely outdated, and suggests that industry can re-design its operations to eliminate waste and pollution. In the pioneering book, *Cradle to Cradle*, the authors point out that the Industrial Revolution

² Coplan, *supra* note 31, at 311.

was based on a design approach known as “cradle to grave” whereby “Resources are extracted, shaped into products, sold, and eventually disposed of in a ‘grave’ of some kind, usually a landfill or incinerator.”³ As they point out, modern industries still cling to this approach even though it is based on “outdated and unintelligent design” – design which, in their words, causes “*intergenerational remote tyranny*” because it leaves the Earth incapable of sustaining the life. These authors explain the feasibility of a cradle-to-cradle design instead. It mimics nature’s own process, and wastes nothing. In a cradle-to-cradle system, every product becomes a beneficial input for another product, without the degrading and carbon-intensive process of recycling.

But of course, the people most vested in the current system – those who make profits off of spewing chemicals and mining resources as fast as they can – will say that any proposals to end pollution and waste are politically naïve, unrealistic, and overly optimistic. My response is, “get over it.” We’ve heard that before. Every successful paradigm shift has proven many naysayers wrong. The fact is, modern civilization simply can’t continue if we stay on this present track. As James Speth says: “If [deep] proposals [seem] impractical, or politically naive, . . . [or] radical or far-fetched today, then I say wait until tomorrow [T]he world of practical affairs does not truly appreciate how much negative change is coming at us, nor how fast”⁴

III.

Now let me suggest how the trust frame might apply to the problems we face on a global level – problems like dying oceans and climate crisis. The Earth Endowment is shared by all Humankind, but legal institutions have never devised a rational way to

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⁴ SPETH, *supra* note **Error! Bookmark not defined.**, at xiii–xiv.

conserve Nature for the collective protection of Humanity. Traditional environmental laws calibrate to boundaries. The laws of the US, for example, are not applicable in China, and vice versa. Boundary-based governance evolved from a fictional set of assumptions that ecology can be carved up and divided among sovereigns, and they can each manage their territory as they see fit. But as science has shown, this approach is anathema to Nature's own laws. Pollution from within one nation's boundaries migrates into the planetary resources like oceans and atmosphere. For most of civilization's history, the flaws inherent in boundary-based governance were tolerable, because the human capacity to do harm was in almost all cases localized. But all that has changed. We now bear witness to a dangerous concoction of corporate ambition and super-technology, which has escalated human annihilative capacity to the planetary level. So, to be effective, the law can no longer stumble along in a fantasy world organized by boundaries alone. There must be planetary responsibility on the part of each nation.

There is another problem with boundary-based governance. It has given people a great excuse to take no responsibility for their action. I give talks on global warming all over the place. And when I urge Americans to take any action to reduce their own carbon footprint, the same response comes back, time and time and time again. "We can't control China's pollution, so why should we take action?" That, remember, was the mindset that President Bush had in refusing to regulate greenhouse gas pollution, and it was the same mindset that led Obama to make absurdly miniscule commitments at the Copenhagen climate negotiations, even though the United States is responsible for a quarter of the present greenhouse gas pollution.

The “What about China?” excuse keep citizens in a holding pattern. We punt the responsibility for solving these global problems over to international treaty negotiations. We assume that we can’t formulate global responsibility without an international treaty process in place. And without global responsibility all perfectly ironed out, we can’t define our individual responsibility, because after all, responsibility is all relative. So, we’ve seen serial climate negotiations with no real results, and we might still be doing so even when the Statue of Liberty is up to her knees in sea level rise.

The bad news here is that there really is no international law. There is only international negotiation. And no matter what country you are talking about, political leaders will give only the commitments they find politically palatable. You see, the paradigm of international treaty making is one of political discretion – which is the same paradigm that has subverted environmental law in the domestic context. Those political negotiators are lobbied heavily by multinational corporations that have grown more big and powerful than many countries. Yet somehow we expect that our political leaders will act differently in the international processes than they do in the domestic processes. They don’t. The international climate negotiations have stalled out. And even if they did work, the promises would still have to be put into law in the domestic countries. Recall that the US never ratified the Kyoto Protocol, and of the countries that did make Kyoto commitments, most did not fulfill them.

But can we change the frame on the international level? Can public trust principles of property law give rise to a framework of obligation on the global level? I think so. The atmosphere and the oceans are planetary assets shared by all governments on Earth as co-tenant trustees. Co-tenant is a term in property law that just means

ownership is shared. So, if you have three people owning a boat together, we would say they are co-tenants of that boat. Co-tenancy comes with obligations. Each co-tenant has the duty towards the other co-tenants not to damage the common asset. This is known as the duty against waste. So one owner couldn't just go up to a boat that he owns with other co-tenants and cause a leak in the floor. That violates the duty against waste, and the court would enjoin that behavior. It would force the responsible party to fix any leak in the floor that they cause. This duty against waste has been applied by courts in the context of the Columbia River fisheries shared between the state and tribal sovereigns.

We can lift that analysis to the planetary level. If oceans and atmosphere are planetary trust assets that are owned by all governments as co-tenant trustees, each nation has the inherent duty under property law not to waste them. That duty exists now, without any treaty.

You can think of the problem in this way. It is as if all of the countries in the world are on one big ship, and each has a different cabin. No country has jurisdiction over the other's cabin. The political leaders of each country punch a hole in the floor of their respective cabins, and water leaks in. Unless every single nation fixes the hole in its cabin, the ship will sink. But, there's no captain of the ship in charge to force everyone to fix the hole. And the political leaders of each country are just sitting in their cabins, playing card games, refusing to take action while putting everyone's lives in peril. So you have to rely on some logic, some doctrine of law whereby the citizens of each cabin can go to the courts of that country to force the repair within their own cabin. That's the situation we are in with atmospheric pollution, which in turn will affect the oceans. By appealing to a near-universal legal principle of public trust, citizens can appeal to the

courts of their country to prevent waste to the common planetary assets. The trust positions all nations on Earth in a fiduciary relationship with each other that does not depend on the existence of treaties. I am now working on developing a global legal strategy based on these principles called Atmospheric Trust Litigation.

The core task is defining the fiduciary duty to protect the atmospheric trust. Scientists have determined that, to recover climate equilibrium and thwart catastrophic heating, we need to bring the concentration of carbon dioxide in the atmosphere back down to 350 parts per million by the end of the century. It is now at 390 and rising 3 percent a year. To achieve 350 ppm, we must reduce emissions on a global level, starting this year, by 10% a year. (The figure is somewhat less if we reforest the world). If we delay slashing pollution, the amount of emissions reduction we would need to achieve every year skyrockets into the realm of the impossible. As the head of the UN climate panel said a few years ago, “if we wait until 2012, that is too late.” There is mind-blowing urgency. When I think of the situation, I have an image in my head of a child who can’t swim falling into a river and being swept away by a strong current. There are a few moments in which you could throw a life ring and rescue the child, but after those moments pass, it will be too late. There will be too much distance for it to reach the child. That’s very analogous to the situation our children are in today.

So, it is imperative to find a way to enforce carbon reduction across the globe to meet the scientific prescription. You can think of this prescription as the scientists’ best guess as to what the laws of Nature require. Political compromises put forth in international negotiations are completely detached from Nature’s reality.

Under a global trust construct, each nation has a duty to reduce its own pollution to contribute to the 10%/year annual planetary goal. Now of course nations are positioned quite differently in terms of their historic contribution to the problem, their present ability to reduce pollution and so forth. But the bottom line is that you can devise a system outside of the treaty process, using objective, fair factors, to figure out each nation's responsibility to protect the common property, and analysts have done exactly that. Citizens can bring cases to enforce the atmospheric fiduciary obligation in courts of their own country. Courts can force government to reduce pollution. Of course, we all know that courts are not perfect. But overall, they represent a different branch of government than the political branches which control that discretion frame I talked about earlier.

I'm not saying that this is a panacea. We are well beyond that. We are in the 11th hour of crisis. Humanity, has jumped out of an airplane 30,000 feet high without a parachute. Or maybe we've been pushed out by ruthless multinational corporations and the fossil fuel industry. Regardless, we are in a free-fall. The easy solutions were 30 years ago when scientists first sounded the warnings of planetary catastrophe. This is a time when lawyers world-wide must raise their heads out of the stultified body of statutory law and combine timeless trust principles with common sense to match the urgency of our circumstances. Handed the right complaint, I think there will be judges who, no matter what their nationality, recognize this perilous moment in the course of human civilization and will exert their judicial authority to protect the globe's atmosphere – yes for the sake of their own children and their own nation's citizens, but also for the

billions of people dependent on Earth's life systems now and for all time to come. As David Orr would say, we can have authentic hope.

IV.

Let me spend the last few moments with some reflections on how the trust frame calls forth moral authority in a way that we have not seen in modern environmental law. Instead what we see on a daily basis is regulation that scours from the conversation all that is sacred, intuitively understood, and morally compelled. Within the vocabulary of environmental law, actions that might well be described as a crime against humanity, or an assault against the community, or a theft against future generations, or even reckless endangerment of innocent children through toxic exposure, are defined by an antiseptic regulatory system as a permissible and legitimate – indeed, a fully legalized -- exploit. The dehumanizing acronyms and techno-jargon embedded in the regulations have cast such a mind-numbing pall over the moral hazards of environmental harm that society's most destructive inclinations have gained acceptance as the norm. Beneath the patina of law, government agencies obfuscate even the ethical abomination of creating a world of runaway heating -- one that would inflict unthinkable natural damage and social calamity upon all Humanity to come. It really can't get much worse than that.

Many citizens seem to no longer see the moral force of environmental law, nor summon it in their everyday interactions and struggles. When a legal framework is severed from the moral pulse of Humanity, it becomes, at best, a moribund hulk of admonition. At worst, it becomes a robotic instrumentality of tyrants. Not only must the law tap into deep moral understandings of Humanity to maintain any credibility and respect in society at large, but it must also be accessible to the hearts and minds of

citizens in order to serve as a constant call to participate in democracy. Moral inquiry alone can inspire citizens to rise up and face our crisis. Moral calling makes for planetary heroes. And in my mind there is no better book to make that appeal than Kathleen Dean Moore's new book, *Moral Ground*.

The public trust calls to our most engrained human impulses and our most deeply understood human rights. As John F. Kennedy once declared, "our most basic common link is that we all inhabit this small planet. We all breathe the same air. We all cherish our children's future. And we are all mortal." Ultimately, the public trust and the primordial rights that infuse it are part of a populist manifesto that surfaces at epic times through the generations of Humanity, perhaps no less revolutionary for our time and our crises than the forcing of the Magna Carta on the English monarchy in 1215, or Mahatma Gandhi's great Salt March to the sea. Like those generations before us, it calls us to stake our moral claims in history.

But just as important as empowering citizens in their civic lives, the trust also gives us a platform of individual responsibility in our personal lives. There is a serious detachment today between modern environmental law and individual conduct. We might all care deeply about the plastic island floating in the Pacific Ocean, but the fact remains, our modern consumption economy inebriates individual desire and vomits waste on a daily basis. Americans use 1.14 million brown paper bags every hour, two million plastic beverage bottles every 5 minutes, 106,000 aluminum cans every 30 seconds, and 90 billion plastic bags a year – and that's why we have a floating plastic island twice the size of Texas in our Pacific ocean. We like to rationalize our extraordinary waste by thinking that recycling works, but it doesn't. If we are to save this planet, we need to create new

ethical standards that motivate consumption sobriety. And yet, within our dominant culture, we view our role is that of consumer, not as an ethical citizen duty-bound to community or generational needs.

The trust world-view creates a principled culture in which members have generational identity and thus, generational duty. An individual is not simply a citizen of State X, or consumer of Brand Z, but, importantly, is a member of particular generation that has duties towards the next generation. Embracing the trust means you understand that we have inherited priceless natural assets on Earth and that we hold them in moral covenant with our children and all generations to come. It means that we take responsibility for our personal actions, even apart from any environmental law telling us to. It means that we understand that their destiny *does* rest on actions taken by each one of us individually, and all of us collectively.

And so, in all of these ways, the public trust creates a morally synergy with environmental law. We have not yet seen yet how powerful that synergy can be in the modern era, but we know that the most ecologically advanced societies in the world find moral guidance in a trust concept. Nearly all indigenous societies embrace a strong and unifying ethic that has an abiding focus on the welfare of the 7th Generation. The well known Native admonition, "We do not inherit the earth from our forefathers, we borrow it from our children," captures both a legal trust and a sacred trust, intertwined as a covenant running through the generations. In many ways, our industrial society's struggle with Nature might be a turbulent cultural voyage toward the same cove of ecological balance that has held anchor for indigenous societies over millennia. Our children's survival may well depend on reaching this harbor in time.

We also find the major religions of the world drawing upon a trust concept to explain a holy relationship between God, Humankind, and Creation. A Jewish prayer, for example, iterates God's command to Adam: "This is the last world I shall make. I place it in your hands: hold it in trust."⁵ Surveys of Christianity, Buddhism, Hinduism, and Islam all suggest a *sacred trust* giving rise to holy covenants of obligation that inure to the benefit of future generations and to all of Creation. A legal paradigm premised on trust concepts falls gracefully – and uniquely -- into this processional of religious teachings. When law's injunctions mirror religious and moral instruction, society gains a powerful symbiosis and alignment -- a renewed steadiness in purpose.

And so to conclude, Nature's Trust is an encompassing paradigm. Not simply a righteous legal premise for the protection of ecology, it is a moral imperative that the din of industrialization silenced long ago.

In the religious realm, Nature's Trust sounds an alter call in mosques, temples, churches, and synagogues around the world to save Creation. This call echoes in the blasted hollows of Appalachia, in the cancer alleys of industrial corridors, on the banks of rivers that carry only ghost-fish anymore, and at the base of immortal mountains that weep their last glaciers into the sea. It summons people of faith everywhere to rise up and defend the holy sanctuary of Earth.

As a legal principle, Nature's Trust taps a wellspring of human understanding that is instinctive, passion-bound, and deeply shared among citizens of distant cultures. The trust evokes a moral language that accesses human primordial sensibilities of reciprocity

⁵ Earth prayers book at 62, (I have a copy of the page at home) and in [http://books.google.com/books?id=xBG99KR52mgC&pg=PA529&lpg=PA529&dq=I+place+it+in+your+hands:++hold+it+in+trust+\(jewish+prayer\)&source=bl&ots=S0WVy9C3jw&sig=798I0-SHuD8fRHakQDonyiRCT4&hl=en&ei=fAHfTLWxGYqusAP7nojPCg&sa=X&oi=book_result&ct=result&resnum=4&ved=0CB4Q6AEwAw#v=onepage&q=I%20place%20it%20in%20your%20hands%3A%20%20hold%20it%20in%20trust%20\(jewish%20prayer\)&f=false](http://books.google.com/books?id=xBG99KR52mgC&pg=PA529&lpg=PA529&dq=I+place+it+in+your+hands:++hold+it+in+trust+(jewish+prayer)&source=bl&ots=S0WVy9C3jw&sig=798I0-SHuD8fRHakQDonyiRCT4&hl=en&ei=fAHfTLWxGYqusAP7nojPCg&sa=X&oi=book_result&ct=result&resnum=4&ved=0CB4Q6AEwAw#v=onepage&q=I%20place%20it%20in%20your%20hands%3A%20%20hold%20it%20in%20trust%20(jewish%20prayer)&f=false) at 529

and reverence for Nature's gifts. Trust-imbued words of rightful inheritance can be spoken anywhere in the world, for the trust covenant rings in the hearts of all Humanity. It dreams a leap of faith for abundant Nature, and a world safe for the children. It gives us authentic hope for the future, because it inspires us, each of us, personally, to be the planetary heroes that will save this precious Earth for our children.