CLI RECOMMENDATION NO. 5

Enact a National Environmental Legacy Act to Preserve a Public Natural Resource Legacy for Future Generations*

I. Introduction

There is virtually universal agreement across the political spectrum that we should protect the interests of our children and grandchildren in setting environmental, health and safety policy. The concepts of sustainability and intergenerational equity, which advance this same objective, have become increasingly important in environmental law and policy debates in the last thirty years, both within the U.S. and internationally. In a large number of statutes, Congress and many state legislatures have embraced the goal of protecting a resource legacy for future generations, and promoting sustainable use of the nation's stock of natural resources in their enactments.[1] In addition, in polls, the American public consistently expresses concern with how well we steward resources and has shown a strong recognition of a responsibility to future generations.[2]

Yet by any measure, it is clear that the U.S. is neither using its natural resources in a sustainable fashion nor systematically considering how today patterns of resource use will affect the next generation.[3] Report after report documents the decline in supplies of freshwater, fish species, biodiversity, energy resources, and many of the values and services associated with these.[4]

Many public natural resources are managed under statutes with notoriously open-ended standards that require federal agencies to "balance" a variety of often incompatible uses, many of which degrade or deplete relevant resources. Many of these statutes contain no enforceable standard mandating protection of any particular quality or quantity of the resource. Instead, they generally charge the relevant agency to develop a plan for the resource that considers a list of competing potential uses. The agency is then granted considerable discretion to decide which of these competing uses to permit on what terms.

A September 2007 CPR Report titled Squandering Public Resources documents how federal agencies have systematically failed to exercise this discretion to achieve stated statutory goals of sustainable use of public natural

---

* This recommendation was authored by Alyson C. Flournoy, University of Florida Research Foundation Professor (2006–09) and Alumni Research Scholar at the University of Florida Levin College of Law; Heather Halter, J.D. University of Florida Levin College of Law '07; and Christina Storz, J.D. University of Florida Levin College of Law '08 and M.S. University of Florida (Interdisciplinary Ecology) '08. It is excerpted from a forthcoming Center for Progressive Reform report titled "The Case for a National Environmental Legacy Act," *available at* http://progressivereform.org/publications.cfm in early 2009.

[1] *See infra* Part IIB2.

[2] *See infra* Part IIB1.

[3] *See infra* Part I.

[4] *See, e.g.*, NOAA's National Marine Fisheries Service Report on the Status of the U.S. Fisheries for 2006 *available at* http://www.nmfs.noaa.gov/sfa/domes_fish/StatusoFisheries/2006/2006RTCFinal_Report.pdf; Millennium Ecosystem Assessment, Ecosystems and Human Well-being: Biodiversity Synthesis at 2–5(2005) *available at* http://www.millenniumassessment.org/documents/document.354.aspx.pdf; Millennium Ecosystem Assessment, Ecosystems And Human Well-Being: Wetlands and Water Synthesis 2-10 (2005), *available at* http://www.millenniumassessment.org/documents/document.358.aspx.pdf; Energy Information Administration (EIA), U.S. Department of Energy, Energy in the United States: 1635–2000, Energy Outlook as of 2001, *available at* http://www.eia.doe.gov/emeu/aer/eh/frame.html; George Wuerthner & Mollie Matteson, eds., Welfare Ranching: The Subsidized Destruction of the American West, 162-257 (2002). For a recent report documenting similar global trends, see World Wildlife Fund, Zoological Society of London & Global Footprint Network, Living Planet Report (2008), *available at* http://assets.panda.org/downloads/living_planet_report_2008.pdf.

resources.[5] Agencies are failing to monitor the depletion and degradation of resources, in part due to inadequate funding.[6] But in addition to benign neglect, the report details numerous initiatives by the Bush Administration that seek intentionally and aggressively to transfer resources to private economic interests at the expense of the public interest.[7] The result is a systematic pattern of squandering public resources or failing to protect them, notwithstanding stated commitments to sustainable use and resource conservation under existing law.

In addition to these trends, judicial decisions interpreting public natural resource management laws have removed some of the few effective checks on agency discretion. Courts have limited both citizens' ability to enforce agency commitments to preserve resources set forth in their management plans and citizens' ability to force agencies to take action to comply with affirmative statutory mandates if such duties are found not to be sufficiently "discrete."[8] In light of these and other shortcomings of current law, the next generation of environmental laws should act on the laudable, widely-embraced, but largely unrealized goal of protecting a resource legacy for future generations. This recommendation therefore makes the case for enactment of a new statute—a National Environmental Legacy Act (NELA or Legacy Act)—that would require us to define in concrete terms for the first time the environmental legacy we wish to leave to future generations and provide a mechanism to ensure that we preserve that legacy.[9]

This recommendation offers a new and positive progressive vision for stewardship of public natural resources. This vision focuses on the concept of our natural resource legacy and draws the link between the goal of preserving a legacy for future generations and sustainability and intergenerational equity—concepts that both the American public and Congress have repeatedly embraced. Part IIA introduces the core concepts of sustainability and intergenerational equity. It then reviews indicia that the American public has endorsed these concepts. Part IIB1 surveys the evidence drawn from public opinion polls. Part IIB2 summarizes the results of a survey of our existing conservation laws. It explores how and to what extent the concepts of sustainable use of resources and consideration of the impact of our resource use on future generations are incorporated in our current law. This research supports the conclusions that these concepts have broad public appeal and that current law and policy embrace them, albeit ineffectually. Given the evidence of public support for these concepts, Part III explores the possibility of a new statute designed to give force to this impulse. It provides an introduction to what a National Environmental Legacy Act might look like and how such a statute would overcome the obstacles that have bedeviled efforts under current laws to preserve natural resources.

II. Sustainability and the Concern for Future Generations

A. The Core Concepts of Sustainability and Intergenerational Equity

The availability of great and diverse natural resources is frequently cited as a key factor in the early development of the United States. And although resources play a different role in today's global economy, there is no basis for assuming

---

[5] *See* Alyson Flournoy, Margaret Clune Giblin & Matt Shudtz, *Squandering Public Resources: A Center for Progressive Reform Report, available at* http://www.progressivereform.org/articles/Squandering_Public_Resources.pdf (Sept. 2007).

[6] *Id.* at 2.

[7] *Id.*

[8] *See* S. Utah Wilderness Alliance v. Norton, 542 U.S. 55 (2004) (precluding suits to compel agency action under §706(1) of the APA if the action is not sufficiently discrete and finding the terms of the resource management plan at issue were merely statements of priority that guide and constrain agency action but do not prescribe or require action); Ohio Forestry Ass'n v. Sierra Club, 523 U.S. 726 (1998) (holding forest management plan not ripe for review).

[9] This recommendation proposes a federal statute, but the concept and design of the Legacy Act could easily be adapted for adoption as a state statute as well. As with NEPA, state analogs could serve distinct purposes. A state Legacy Act would presumably focus on protecting a legacy of state-owned and public trust natural resources rather than federal resources.

we no longer need natural resources or that their continued domestic availability is wholly unimportant. Moreover, no one suggests that current use patterns reflect a well-defined and executed plan based on a conscious commitment to a particular legacy. Therefore, it seems clear that we must develop a new legal framework if we are to preserve any defined resource legacy for the generations that succeed us.

The concepts of sustainability and intergenerational equity provide a logical grounding for the effort to define and preserve a natural resource legacy.[10] These concepts have become increasingly important in environmental law and policy debates, both within the U.S. and internationally in the last thirty years. Taken together, these concepts provide a useful backdrop for discussing the idea of a resource legacy and the value choices we make in shaping our legacy, whether through action or inaction.

In the course of debates over the need to conserve natural resources, those opposing conservation sometimes claim that environmental degradation and use of natural resources is the price to pay for achieving progress in a society.[11] Similarly, books such as The Skeptical Environmentalist embrace the idea that we cannot afford environmental protection because there are paramount societal needs we are not yet meeting.[12] However, a more complete analysis reveals that overuse of resources can itself impede a society's economic progress and may impose on the same or future generations' costs of far greater magnitude.[13] This understanding, coupled with public concern about the future impacts of our actions has led many countries to adopt sustainability as a normative framework to govern behavior.[14]

The concept of sustainability first gained prominence in international discussions. The 1972 Declaration of the UN Conference on the Human Environment, commonly known as the Stockholm Declaration, recognized the relationship between development and the environment, stating that "economic and social development is essential for ensuring a favorable living and working environment for man"[15] and that "environmental policies of all States should enhance and not adversely affect the present or future development potential of developing countries."[16] Some fifteen years later, the UN World Commission on Environment and Development (the Brundtland Commission), defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."[17] Many of our federal statutes adopt this definition. An alternative and more recent definition of the related concept of sustainability, developed by the World Conservation Union, is "to improve the quality of life while living within the carrying capacity of ecosystems."[18]

---

[10] For a detailed review of the concept and ethical and legal justifications for intergenerational equity, see Burns H. Weston, *Climate Change and Intergenerational Justice: Foundational Reflections*, 9 Vt. J. Envtl. L. 375, 389-400 (2008). The essay is available also as CLI Background Paper No. 2 in Appendix A of this CLI Policy Paper.

[11] John C. Dernbach, *Sustainable Development as a Framework for National Governance*, 49 Case W. Res. L. Rev. 1, 3 (1998).

[12] *See* Bjørn Lomborg, The Skeptical Environmentalist: Measuring The Real State Of The World (2001).

[13] Frank Ackerman & Elizabeth Stanton, *Climate Change—The Costs of Inaction, Report to Friends of the Earth England, Wales and Northern Ireland:* (Oct. 11, 2006) *available at* http://www.foe.co.uk/resource/reports/econ_costs_cc.pdf.

[14] *Id.*

[15] Stockholm Declaration, in Report of the United Nations Conference on the Human Environment, Declaration of the United Nations Conference on the Human Environment, U.N. Doc. A/CONF.48/14/Rev.1, at 4 (quoting princ. 8) (1972), *reprinted in* 5 International Law and World Order: Basic Documents V.B.3 (Burns H. Weston & Jonathan C. Carlson eds., (1994–)) [hereinafter "Weston & Carlson"].

[16] *Id.* at 11 (quoting princ. 11).

[17] *World Commission on Environment and Development, Our Common Future* at 43 (1987) [hereinafter "*Our Common Future*"]. There are also two concepts within this definition. *Id.* These are "needs" of the world's poor, which should obtain priority, and realization that the state of technology poses limits on the environment's ability to meet present and future needs. *Id.*

[18] IUCN, Caring for the Earth. Gland: IUCN (1991).

In 1992, the Rio Declaration on Environment and Development enumerated twenty-seven principles for sustainable development.[19] Most notable for our purposes is the principle that we must equitably fulfill the "developmental and environmental needs of present and future generations."[20] Following Rio came Agenda 21, which outlines ambitious goals relating to sustainability on an international scale.[21] Agenda 21 is a "plan of action" for sustainable development, with concrete standards for determining whether a particular government is doing all it can to foster sustainable development.[22]

Sustainability's most basic justification is intergenerational equity: a desire that present development not compromise the ability of future generations to meet their own needs.[23] Inherent in this view is the requirement that goals for economic development, social development, peace and security, and natural resources protection should be met for both present and future generations.[24] Because of the biases inherent in economic markets in favor of short term profitability and current exploitation of resources, any serious effort to achieve sustainability depends on legal norms that reflect and operationalize this commitment.[25]

Beyond international law, many countries have embraced the concepts of sustainability and intergenerational equity in their constitutional law. For example, the Constitution of Brazil, Article 225 states: "All persons are entitled to an ecologically balanced environment, which is an asset for the people's common use and is essential to healthy life, it being the duty of the Government and of the community to defend and preserve it for present and future generations."[26] The Constitution of Namibia has a similar provision. Namibian Article 95(l) states that "the State shall actively promote and maintain the welfare of the people by adopting, inter alia, policies aimed at the following: . . . . maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of living natural resources on a sustainable basis for the benefit of all Namibians, both present and future . . . ."[27] The Supreme Court of the Philippines has ruled that children of Antonio Oposa, along with 41 other children, had standing to sue on behalf of their generation and subsequent generations.[28] Intergenerational equity formed an early part of the history on this continent through the Native American Indian tribes. European settlers were exposed to the indigenous commitment to sustainability: a deeply-

[19] *See* Rio Declaration on Environment and Development, U.N. Conference on Environment and Development, U.N. Doc. A/CONF.151/5Rev.1, reprinted in 31 Int'l Legal Materials 874 (1992) and Weston & Carlson, *supra* note 15, at V.B.16.

[20] *Id*. at princ. 3.

[21] *See* Agenda 21, U.N. Conference on Environment and Development, U.N. Doc. A/CONF.151/26 (1992).

[22] *Id*.

[23] *Our Common Future*, *supra* note 17, at 43.

[24] Dernbach, *supra* note 12, at 31. (1998).

[25] *See* Mark Sagoff, The Economy of the Earth 63–65 (1988).

[26] Constitution of the Federative Republic of Brazil of 1988, Chapter VI, Environment, Article 225, *available at* http://www.v-brazil.com/government/laws/titleVIII.html (last visited June 12, 2007).

[27] The Constitution of the Republic of Namibia, Chapter 11, Article 95(l), *available at* http://www.orusovo.com/namcon/ (last visited June 12, 2007).

[28] Oposa v. Factoran, 224 SCRA 792 (1993); *reprinted in* 33 Int'l Legal Materials 173 (1994).

rooted and stable relationship with the land.[29] Scholars have identified in various tribes' traditions a concept, closely linked to sustainability—"ensuring the survival of the people, the land and the resources for seven generations."[30]

To fully define intergenerational equity requires that we determine *what* society seeks to preserve for its future generations. Scholars have set out a number of theories of intergenerational equity. Professor Edith Brown Weiss sets forth a nature-based "planetary trust" model for intergenerational equity that also incorporates intragenerational equity concepts.[31] This trust creates rights and responsibilities in present and future generations.[32] Brown Weiss has set forth three goals for intergenerational equity. First, every generation should "conserve the options" of future generations by conserving "the diversity of the natural and cultural resource base."[33] Second, each generation has an obligation to pass to the next generation "the quality of the planet that is no worse than [that generation] received," which is "conservation of quality."[34] Third, conservation of access requires all people in a given generation to have the same minimum level of access to the legacy.[35] Professor Brown Weiss's goals also emphasize the concept of *intra*generational equity, a concept akin to environmental justice, in that equity within a current generation is necessary for equity among all generations. Environmental justice and intergenerational equity are interrelated concepts,[36] and have evolved together.[37]

Others advocate an approach to intergenerational equity that considers both human needs and those of ecosystem health. Adopting this approach, one scholar defines intergenerational equity as "meet[ing] human needs without compromising the health of ecosystems."[38] Because of its focus on biological conservation and meeting human needs, this definition reflects an ethic that bridges anthropocentrism and biocentrism.[39] It therefore rejects human use-

---

[29] *See* Rebecca Tsosie, *Tribal Environmental Policy in an Era of Self-Determination: The Role of Ethics, Economics and Traditional Ecological Knowledge,* 21 Vt. L. Rev. 225 (1996) *in* Clifford Rechtschaffen & Eileen Guana, Environmental Justice: Law, Policy, & Regulation 429, 431 (2002). Native American Indian peoples see their relationship with the land as holistic, cyclical, and permanent. *Id*. A sustainable relationship with the land is inherent in that balance; *But see* Charles C. Mann, 1491: New Revelations of the Americas Before Columbus (2006) (positing that environmentalists over-sentimentalize Native American history as embodying the lesson of how to live in a spiritual balance with Nature).

[30] Tsosie, *supra* note 30.

[31] *See* Edith Brown Weiss, *What Obligation Does Our Generation Owe To The Next? An Approach To Global Environmental Responsiblity: Our Rights and Obligations To Future Generations For The Environment* 84 A.J.I.L. 198 (1990). *See also* Weston, *supra* note 10. *But see* Jeffrey M. Gaba, *We Do Not Hold the Earth in Trust*, 33 Envtl. L. Rep. 10325 (2003) (agreeing with Weiss's goal, but disagreeing with the trust metaphor).

[32] Brown Weiss, *suptra* note 32.

[33] *Id*. at 202–03.

[34] *Id*. at 203.

[35] *Id*.

[36] Under U.S. law, environmental justice is defined in President Clinton's 1994 Executive Order No. 12,898 and the EPA's Office of Environmental Justice. President Clinton's Order defines environmental injustice as "disproportionately high and adverse human health or environmental effects [] on minority populations and low-income populations." Robert Kuehn presents EPA's standard definition of environmental justice as identifying certain populations' lack of political and economic strength:

> The fair treatment of people of all races, cultures, incomes, and educational levels with respect to the development and enforcement of environmental laws, regulations and policies. Fair treatment implies that no population should be forced to shoulder a disproportionate share of exposure to the negative effects of pollution due to lack of political or economic strength.

Robert R. Kuehn, *A Taxonomy of Environmental Justice*, 30 Envt'l Law Rep. 10,681 (2000) *in* Clifford Rechtschaffen & Elieen Guana, Environmental Justice: Law, Policy, & Regulation 6, 7 (2002) (citing EPA Office of Environmental Justice (1998)).

[37] J.B. Ruhl, *The Co-Evolution of Sustainable Development and Environmental Justice: Cooperation, Then Competition, Then Conflict,* 9 Duke Envtl. L & Pol'y F. 161, 162 (1999).

[38] *See* Michael Redclift, Sustainable Development: Exploring the Contradictions 27 (1987).

[39] *Id.*

focused concepts like sustained-yield and sustainable development, and opts for conservation of the ecological health of ecosystems that are human-inhabited and—exploited.[40]

Some scholars argue that most intergenerational equity definitions do not account for future population changes which will change resource consumption. They suggest that ensuring the future does not make sense unless the impact of rapid population growth on the physical resource base is considered.[41] Ensuring resource protection for future generations can only be achieved if one accounts for the increasing size of generations.

B. Is the American Public Concerned With Sustainability and Our Legacy to Future Generations?

The concept of a National Environmental Legacy Act is premised on a norm or value choice—a commitment to protecting the quality of life available to our children and their children. It cannot be disputed that future generations' quality of life will depend in significant measure on the exhaustible and renewable resources available to them. The key questions are therefore whether we believe that we should concern ourselves with the impact our decisions will have on their well being, and if so, whether we feel we are adequately considering their interests under current law, policy, and practice. One way in which our decisions may affect their well-being is by depleting and degrading the stock of natural resources available to them.[42]

This part explores two sources that provide indications that lawmakers should take further steps to embrace sustainability and intergenerational equity as guiding principles in shaping American environmental law and policy. These sources suggest that the American public is aware of the impact our decisions have on future generations and cares about how our decisions affect this legacy. Part IB1 examines data from public opinion polls that sheds light on this question. Part IB2 turns to the expressions in current law and policy that suggest concern with our legacy or a commitment to sustainable use of our stock of natural resources. The frequent expression of this commitment in our laws

---

[40] *Id.* at 33.

[41] *Id*. at 27. *See also* Weston, *supra* note 11 at 392–93 (describing Jörg Tremmel's approach of leaving future generations with equivalent productive capacity).

[42] Those who favor heavy reliance on private markets and microeconomics argue that the primary determinant of future generations' well-being is the overall wealth we leave to them. Therefore they advocate that maximizing efficiency by allowing markets to determine what resources we preserve will serve the interests of future generations better than our efforts to regulate our resource use. This recommendation rejects primary reliance on economics as an adequate tool and efficiency as the sole determining norm. Numerous scholars have demonstrated the fundamental flaws associated with heavy reliance on economic models, borne of the models' assumptions of perfect information and no transaction costs, their failure to address externalities, and the fundamental inadequacy of these models for assessing the value of resources with non-market values. *See, e.g*., Frank Ackerman & Lisa Heinzerling, Priceless: On Knowing the Price of Everything and the Value of Nothing 61–90, 153–78 (2004). An even more profound critique of using microeconomic models to assess the impacts of resource depletion is the failure of these models to consider the impact of the overall scale of the economy and the finitude of resources. *See* Douglas A. Kysar, *Law, Environment, and Vision,* 97 Nw. U. L.Rev. 675, 683-84 (2003). The flaws are compounded when we try to assess values in the future, because of the centrality of discounting to traditional economic approaches, and the lack of any single approach to discounting agreed upon by economists. Lisa Heinzerling, *Discounting Our Future,* 34 Land & Water L. Rev. 39 (1999); Lisa Heinzerling, *Environmental Law and the Present Future,* 87 Geo. L. J. 2025 (1999); Lisa Heinzerling, *Discounting Life,* 108 Yale L. J. 1911 (1999); Kysar, *supra*, at 688–91; *but see* Daniel Farber, *From Here to Eternity: Environmental Law and Future Generations,* 2003 U. Ill L.Rev. 289, 291 (advocating use of discounting notwithstanding the lack of consensus and arguing that reliance on discounting is inevitable). In addition to these flaws, the exclusion of equity from the norms that standard economic models maximize makes sole reliance on economics incompatible with an approach grounded in sustainability and intergenerational equity.

Despite the limits of economics as the primary tool for helping us shape our resource legacy, it has utility and economic valuation and models will undoubtedly play a role in the process. Economic theory and models can play a useful role in helping to assess how private actors will respond to various developments and in assessing some values of resources. The danger is in asking economics to do more than it reliably can.

and in the ongoing public support for full enforcement of these laws supports the conclusion that the public cares about sustainable use of resources and the legacy it leaves to future generations. Neither opinion polls, nor the support for sustainability expressed under current law ends debate, but they are sufficient indicia of a public commitment to warrant efforts to promote further serious public consideration of whether current law and policy will achieve our stated goals and if not, to warrant consideration of meaningful reform.

1. Public Opinion

Public opinion polls consistently reveal the American public's concern for how we steward the natural wealth available to us.[43] The public responds strongly to the ethic of preserving the environment for future generations, and many Americans consider stewardship of the environment as a religious obligation as well. [44] Responsibility to future generations is also a concept with which people are very familiar from their private lives.

The public expresses favor for sustainability when polled about specific environmental issues as well. When asked, "what do you think should be a higher priority in management of the country's national parks: protecting natural habitats and wildlife, or providing public access for recreational use?," 79% of those polled believed that "protecting nature" was paramount.[45] Additionally, when those polled were read a list of environmental problems and asked to describe how much they worry about each problem listed, a majority of those polled said they worry "a great deal" about all of the following environmental problems: pollution of drinking water, pollution of rivers, lakes and reservoirs, contamination of soil and water by toxic waste, maintenance of the nation's supply of fresh water for household needs, air pollution, global warming, extinction of plant and animal species, and acid rain.[46]

To say that the public supports protecting the environment and preserving resources for future generations does not end the inquiry. One limitation of these polls is that they identify environmental issues in isolation. Even though a majority of the public expresses concern about conservation of the environment, public concern about pollution and

---

[43] A large majority (83%) of the American public supports stricter laws and regulations to protect the environment. Pew Research Center. Opinion Poll. *available at* http://pewresearch.org/databank/dailynumber/?NumberID=305 (last visited May 23, 2007); nearly 6 in 10 of those polled said protecting the environment "should be a top priority for Congress in 2006," although other issues such as protecting the United States from future terrorist attacks ranked higher, *available at* http://www.publicagenda.org/charts/nearly-six-10-americans-say-protecting-environment-should-be-top-priority-congress-2006-0 (last visited May 23, 2007; roughly half of those polled considered themselves sympathetic to the environmental movement, *available at* http://www.publicagenda.org/charts/roughly-half-americans-say-they-are-sympathetic-environmental-movement (last visited May 23, 2007).

[44] Americans were polled and asked to choose from six reasons as to why we should protect the environment. Among six reasons for caring about protecting the environment, results appeared in the following order:

1) 39% —"responsibility to future generations to protect the earth"
2) 23% —"nature is God's work"
3) 17% —"protect the balance of nature for you and your family to enjoy health"
4) 10% —"respect nature"
5) 6% —"appreciation for beauty"
6) 4% —"to protect America's natural history"
7) 1% —"don't know."

Belden, Russonello, & Stewart, Americans and Biodiversity: New Perspectives in 2002 6 (Feb. 2002).

[45] ABC News/Washington Post/Stanford University Poll. April 5-10, 2007, *avaliable at* http://www.pollingreport.com/enviro.htm (last visited May 27, 2007).

[46] Gallup Poll. March 11–14, 2007, *avaliable at* http://www.pollingreport.com/enviro.htm (last visited May 27, 2007).

identification with "environmentalism" have declined over time.[47] This may reflect in part the fact that most Americans believe that "the government has too little or about the right amount of involvement in environmental protection and that regulation ha[s] either struck the right balance or not gone far enough."[48] This may reflect public awareness that resource conservation values may conflict with other strongly held values or political choices at hand.[49] Also, opinion polls do not provide a complete and nuanced understanding of what respondents mean when they think of protecting the environment or interests of future generations. Moreover, as with all ethical decisions, people's views will ultimately be shaped by both their values and the information available to them on the impact of their choices.[50] In practice, choices must be made among values at the margin. However, these ongoing debates do not mean that polls are without meaning. Sometimes choices that will promote sustainability are consistent with potentially competing priorities. [51]

The indications of public concern for conserving the environment and specifically for the impact of our decisions on future generations at least justify further inquiry. Concerted engagement of the public with facts regarding current patterns of resource use, and an open and vibrant public debate about the ethical impact of our policy choices are essential to determining the proper course. This will require a public debate of many dimensions—technical, ethical, political, and scientific—to determine the level of resources we choose to leave as our legacy to the next several generations.

While fostering such a debate poses a challenge, it also represents an opportunity that the American public deserves. To acknowledge that the extent of the public's commitment to sustainability and the precise contours of their concern for future generations cannot be fully determined is not to say that it is not real and does not merit further inquiry and full articulation. Resolving important social and moral issues often demands a period of public education and debate. Debate over a proposed statute that squarely raises the topic would be a useful tool to shed light on the topic and to provide both information and the opportunity for public deliberation on the topic.

2. Commitments to Sustainability and Future Generations in Existing Law

In a large number of statutes, Congress has recognized the value of the natural resources America possesses. These statutes also frequently articulate concern with the resource legacy we leave to future generations, and with sustaining the nation's stock of natural resources. In addition, at least thirty-two states include reference to the interests of

---

[47] Gallup Poll, March 2004 and Gallup Poll, April 2000, *avaliable at* http://www.publicagenda.org/charts/public-concern-about-pollution-and-identification-environmentalism-have-declined-over-time (last visited May 27, 2007).

[48] When combined, those who selected one of these two answers represented a majority of those polled annually from 1974–1994. Everett Carll Ladd & Karlyn H. Bowman, Attitudes Toward the Environment: Twenty-Five Years after Earth Day 22–23 (1995).

[49] Concern about the environment appears to wax and wane depending on the salience of other pressing concerns such as the economy and foreign policy problems. For example, even when asked to look forward 25 years, more Americans perceive that a lack of energy or Social Security will each be more pressing of a problem than mention of the environment. Gallup's Pulse of Democracy—Environment. The Gallup Poll, *available at* http://www.galluppoll.com/content/default.aspx?ci=1615 (last visited May 23, 2007).

[50] *See* James D. Gill, Lawrence A. Crosby, and James R. Taylor, *Ecological Concern, Attitudes, and Social Norms in Voting Behavior,* 50 The Pub. Opinion Q., No. 4, 537–54 (Winter 1986) (investigating the indirect relationship between ecological concern and voting behavior. The authors' results show that attitudinal, normative, and behavioral intention variables mediate the effects of ecological concern).

[51] This is exemplified by recent studies examining the costs of delaying action on global warming. A recent World Wildlife Fund report explains that delaying action to curb global warming would dwarf the costs of acting now, and that these costs will occur in our lifetimes. World Wildlife Fund (WWF) Climate Report, *Climate Solutions: WWF's Vision for 2050*, *available at* http://worldwildlife.org/climate/pubs.cfm (last visited May 27, 2007). In this report, WWF sought to answer the question of whether it is technologically possible to use clean and sustainable energy sources to meet growing demands for energy. The report maintained that, at present, this is feasible.

future generations or to sustainability or sustainable development in statutes related to the use of natural resources.[52] The frequency with which these three related themes appear in our laws reflects sustained legislative concern with how our laws and policies affect our stock of natural resources, an awareness that our actions affect the level of resources available in the future, a desire to make conscious decisions about the disposition of these resources, at the very least, and in many cases an affirmative desire to assure continued availability of the resources for future generations.

Congress has expressed its concern and intent regarding the legacy we leave to future generations and sustainable use of natural resources in federal statutes in a number of different forms. The three predominant forms in which Congress has expressed these concerns are goals, mandates, and incentives. In the first category, concern for future generations or sustainability appears as a goal or policy or in aspirational language. In the second category, the commitment to sustainability forms an explicit part of the mandate Congress imposes. Finally, in a number of statutes, Congress creates incentives that are compatible with and/or designed to promote sustainability or preserve a legacy for future generations. The discussion below describes these three categories in more detail and provides some examples of each.

a. Inclusion in Findings, Goals, Policies, Purpose, or Objectives

In many statutes, Congress has stated a goal or policy of sustaining the quantity and quality of our stock of natural resources.[53] These provisions frequently also explicitly note the national interest in and value of the resource.[54]

---

[52] Alabama, Alaska, California, Connecticut, Delaware, Florida, Georgia, Hawaii, Illinois, Indiana, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Montana, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Oregon, Pennsylvania, Rhode Island, Texas, Utah, Vermont, Virginia, Washington and West Virginia all have laws incorporating these concepts, as do the District of Columbia, Guam and Puerto Rico. Some are more protective of the resource legacy—making it an explicit priority among competing demands—and others merely invoke it in a list of competing priorities to be reconciled with little direction to prioritize resource interests of future generations. (*Compare*, *e.g.,* Minn. Stat. Ann. § 116P.01 (finding that "to ensure wise stewardship of the state's environment and natural resources for the benefit of current citizens and future generations . . . requires foresight, planning, and long-term activities" and that "to undertake such activities properly a long-term, consistent, and stable source of funding must be provided") *with* Tex. Agric. Cod Ann. §2.004 (Vernon 2007) (providing that Agriculture Policy Board shall "advocate and recommend strategies that enhance agriculture production, income, and employment, that benefit consumers, and that promote efficient and sustainable use of resources.") A complete list of provisions and the relevant text is on file with the author.

[53] Coral Reef Conservation Act, 16 U.S.C. §6401(1) (2006) (purposes) ("The purposes of this title are to preserve, sustain, and restore the condition of coral reef ecosystems"); Estuarine Protection Act, 16 U.S.C. §1221 (2006) (declaration of policy) ("It is therefore the purpose of this Act to provide a means for considering the need to protect, conserve, and restore these estuaries in a manner that adequately and reasonably maintains a balance between the national need for such protection in the interest of conserving natural resources and natural beauty of the Nation and the need to develop these estuaries to further the growth and development of the Nation"); Marine Mammal Protection Act, 16 U.S.C. §1361(2) (2006) (findings/policy) ("such species and population 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, and, consistent with this major objective, they should not be permitted to diminish below their optimum sustainable population"); Marine Mammal Protection Act, 16 U.S.C. §1361(6) (2006) (findings/policy) (" . . . marine mammals have proven themselves to be resources of great international significance, esthetic and recreational as well as economic, and it is the sense of the Congress that they should be protected and encouraged to develop to the greatest extent feasible commensurate with sound policies of resource management and that the primary objective of their management should be to maintain the health and stability of the marine ecosystem . . . "); Wilderness Act 16 U.S.C. §1131(a) (2006) (establishment/policy) ("In order to assure that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States and its possessions, leaving no lands designated for preservation and protection in their natural condition, it is hereby declared to be the policy of the Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness").

[54] Coastal Zone Management Act 16 U.S.C. §1451(a) (2006) (findings) ("Congress finds that there is a national interest in the effective management, beneficial use, protection, and development of the coastal zone . . . "); Estuarine Protection Act, 16 U.S.C. §1221 (2006) (policy) ("Congress finds and declares that many estuaries in the United States are rich in a variety of natural, commercial, and other resources, including environmental natural beauty, and are of immediate and potential value . . . "); Federal

Many statutes also explicitly note a need to preserve the resource for present and future generations of Americans.[55] These references typically appear in the congressional findings, policy, or purpose section of the relevant statutes.

Land Policy and Management Act, 43 U.S.C. §1701 (2006) (policy) (". . . the national interest will be best realized if the public lands and their resources are periodically and systematically inventoried and their present and future use is projected through a land use planning process . . ."); National Forests Management Act 16 U.S.C. §1609(a) (2006) (declaration of policy) ("Congress declares that the National Forest System consists of units of federally owned forest, range, and related lands throughout the United States and its territories, united into a nationally significant system . . . ").

[55] Alaska National Interest Lands Conservation Act, 16 U.S.C. §3101(a) (2006) (purpose/goal) ("In order to preserve for the benefit, use, education, and inspiration of present and future generations certain lands and waters . . . "); Archaeological Resources Protection Act 16 U.S.C. §470aa §2(b) ("The purpose of this Act is to secure, for the present and future benefit of the American people, the protection of archaeological resources and sites which are on public lands and Indian lands . . . ."); Clean Air Act, 42 U.S.C. §7651(a) (5) (2006) (findings) ("The Congress finds that— . . . (5) current and future generations of Americans will be adversely affected by delaying measures to remedy the problem [of acid deposition]"; Coastal Zone Management Act, 16 U.S.C. §1451(b) (2006) (findings/purposes) ("Congress finds that—. . . (b) the coastal zone is rich in a variety of natural, commercial, recreational, ecological, industrial, and esthetic resources of immediate and potential value to the present and future well-being of the nation"); Estuarine Protection Act, 16 U.S.C. §1221 (2006) (policy) ("Congress finds and declares that many estuaries in the United States are rich in a variety of natural, commercial, and other resources, including environmental natural beauty, and are of immediate and potential value to the present and future generations . . ."); National Environmental Policy Act, 42 U.S.C. §42 4331(a) (2006) (policy) ("The Congress . . . declares that it is the continuing policy of the Federal government . . . to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans."); National Forests Management Act, 16 U.S.C. §1609(a) (2006) (national forest system declaration) ("Congress declares that the National Forest System consists of units of federally owned forest, range, and related lands throughout the United States and its territories, united into a nationally significant system dedicated to the long-term benefit for present and future generations . . ."); National Historic Preservation Act, 16 U.S.C. §470(b) (4) (2006) (findings) ("The Congress finds and declares that—. . . (4) the preservation of this irreplaceable heritage is in the public interest so that its vital legacy of cultural, educational, aesthetic, inspirational, economic, and energy benefits will be maintained and enriched for future generations of Americans"); National Maritime Heritage Act, 16 U.S.C. §5401(5) and (6) (2006) (findings) ("The Congress finds and declares the following—. . . (5) The preservation of this irreplaceable maritime heritage is in the public interest so that its vital legacy of cultural, educational, aesthetic, inspirational, and economic benefits will be maintained and enriched for future generations of Americans. (6) The current governmental and nongovernmental historic preservation programs and activities are inadequate to ensure future generations a genuine opportunity to appreciate and enjoy the rich heritage of our Nation."); National Park Service Concessions Management Act, 16 U.S.C. §5951(a) (2006) (findings) ("In furtherance of [the National Park Service Organic Act] which directs the Secretary to administer units of the National Park System . . . providing for their enjoyment in a manner that will leave them unimpaired for the enjoyment of future generations . . ."); National Park Service Organic Act, 16 U.S.C. §1 (service created) ("The service thus established shall promote and regulate the use of the Federal areas known as national parks, monuments, and reservations hereinafter specified by such means and measures as conform to the fundamental purposes of the said parks, monuments, and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."); National Recreation Act, 16 U.S.C. §4601 (2006) (findings/policy) ("The Congress finds and declares it to be desirable that all American People of present and future generations be assured adequate outdoor recreation resources . . ."); National Wildlife Refuge System Administration Act, 16 U.S.C. §668dd(a) (2) (2006) (mission) ("The mission of the [Wildlife Refuge] System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources . . . for the benefit of present and future generations of Americans . . ."); Nuclear Waste Policy Act, 42 U.S.C. §10131(a) (7) (2006) (findings/purposes) ("The Congress finds that –(7) . . . precautions must be taken to ensure that . . .[high level radioactive] waste and spent fuel do not adversely affect the public health and safety and the environment for this or future generations"); Emergency Wetlands Resources Act, 16 U.S.C. §3901(a) (9) (2006) (findings) ("The Congress finds that- . . . (9) the existing Federal, State, and private cooperation in wetlands conservation should be strengthened in order to minimize further losses of these valuable areas and to assure their management in the public interest for this and future generations"); Wild and Scenic Rivers Act, 16 U.S.C. §1271 (2006) (policy) ("It is hereby declared to be the policy of the United States that certain selected rivers . . . possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values . . . and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations"); Wilderness Act, 16 U.S.C. §1131(a) (2006) (policy) (. . . it is hereby declared to be the policy of the Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness").

b. Incorporation into Statutory Mandates

Congress has more forcefully demonstrated intent to sustain resources by integrating sustainability into various statutory mandates governing management or maintenance of public resources. In these statutes, the very structure or execution of the statute requires that the implementing agency consider sustainable use of resources, the interests or needs of future generations, or both.

Several of our core natural resource management laws explicitly incorporate these concepts into the provisions that provide the primary guidance on management of the relevant resource. [56] This is frequently accomplished by defining the concept of sustainability for the resource of focus and mandating that management plans be created for executing the stated definition of sustainability under the statute. A few statutes call for sustainable resource supply without such a pointed management plan mandate.[57] In addition, the Clean Water Act sets as its objective "to restore and maintain the chemical, physical and biological integrity" of the nation's waters.[58] The objective of maintaining the waters' integrity implies a goal of sustaining the quality of the water—its chemical, physical and biological integrity. Restoring

---

[56] In the Federal Land Policy and Management Act, 43 U.S.C. §1701(a) (7) (2006), Congress mandates that federal land be managed on the basis of multiple use and sustained yield. "The Congress declares—. . .(7) goals and objectives be established by law as guidelines for public land use planning, and that management be on the basis of multiple use and sustained yield." *Id.* Congress then defines "multiple use" as ". . . the management of the public lands and their various resource values so that they are utilized in combination that will best meet the present and future needs of the American people . . ."; The Magnuson Stevens Fishery Conservation and Management Act (Magnuson), 16 U.S.C. §1801 *et seq*. gives authority to the National Marine Fisheries Service and eight fishery management councils to create fishery management plans to regulate fishing from three miles offshore up to 200 miles. In Magnuson, Congress states ten national standards to which fishery management plans must conform. 16 U.S.C. §1851 (2006). National standard one states that "conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the United States fishing industry." 16 U.S.C. §1851(a) (1) (2006).; The Multiple-Use Sustained Yield Act authorizes the Secretary of Agriculture to "develop and administer the renewable surface resources of the national forests for multiple use and sustained yield of the several products and services obtained therefrom." 16 U.S.C. §529 (2006). "Multiple use" under the Act is defined as "the management of all the various renewable surface resources of the national forests so that they are utilized in the combination that will best meet the needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; that some land will be used for less than all of the resources; and harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land, with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output." 16 U.S.C. §531(a) (2006). "Sustained yield of the several products and services" is defined as "the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the national forests without impairment of the productivity of the land." 16 U.S.C. §531(b) (2006). The National Forests Management Act (NFMA) was enacted by Congress to constrain environmentally damaging management practices in national forests, and mandates the use of land and resource management plans to predict resource output and the effects of proposed activities on the national forests. *See* 16 U.S.C. §1604 *et seq.* (2006). In developing these management plans, the "Secretary shall assure that such plans—(1) provide for multiple use and sustained yield of the products and services obtained therefrom in accordance with the Multiple-Use Sustained-Yield Act [ ] and, in particular, include coordination of outdoor recreation, range, timber, watershed, wildlife and fish, and wilderness; and (2) determine forest management systems, harvesting levels, and procedures in the light of all of the uses set forth in subsection (c) (1), the definition of the terms "multiple use" and "sustained yield" as provided in the Multiple-Use Sustained-Yield Act [ ] and the availability of lands and their suitability for resource management. 16 U.S.C. §1604(e) (1) and (e) (2) (2006).

[57] Coral Reef Conservation Act, 16 U.S.C. §6401(1) (2006) ("The purposes of this title are to preserve, sustain, and restore the condition of coral reef ecosystems"); Marine Mammal Protection Act, 16 U.S.C. §1361(6) (2006) (" . . . marine mammals have proven themselves to be resources of great international significance, esthetic and recreational as well as economic, and it is the sense of the Congress that they should be protected and encouraged to develop to the greatest extent feasible commensurate with sound policies of resource management and that the primary objective of their management should be to maintain the health and stability of the marine ecosystem . . . ").

[58] Clean Water Act, 33 U.S.C. §1251(a) (2006).

the water quality invokes the notion of sustainability and our legacy in that it is compatible with sustaining the qualities or integrity of the water but recognizes that restoration is required because we have already degraded the resource and impaired its integrity, thus affecting both present and future uses.

Finally, by authorizing the creation of monuments and preservation of landscapes, Congress empowers and directs federal agencies manage certain landscapes in such a way as to preserve them for future generations. [59]

c. Incorporation by Creating Incentives

Congress has also demonstrated its intent to sustain resources by providing incentives for conserving resources, rather than setting a goal or objective or imposing a mandate of sustainable use on a given agency. When employing this approach, Congress may not explicitly invoke sustainability or future generations.[60] Instead, Congress seeks to encourage the voluntary preservation of resources by creating financial or other incentives for private landowners who make efforts to sustain their lands or resources on their lands. These statutes may provide assistance for conservation practices on private lands,[61] voluntary granting of easements,[62] state and federal coordination,[63] or aim to combat harmful practices by withholding benefits to landowners.[64]

---

[59] Antiquities Act, 16 U.S.C. §431 *et seq.* (2006); National Historic Preservation Act, 16 U.S.C. §470 (2006); Wild and Scenic Rivers Act, 16 U.S.C. §1271 *et seq*. (2006); Wilderness Act, 16 U.S.C. §1131 *et seq.* (2006).

[60] In at least one case, Congress explicitly invokes sustaining resources for the benefit of future generations. Conservation Reserve Program, 16 U.S.C. 3831(b) (1) (A) (i) (2006) ("The Secretary may include in the program established under [the statute]—(1) highly erodible cropland that—(A) (i) if permitted to remain untreated could substantially reduce the agricultural production capability for future generations").

[61] Conservation Reserve Program, 16 U.S.C. §3831(a) (2006) ("The Secretary shall formulate and carry out a conservation reserve program under which land is enrolled through the use of contracts to assist owners and operators of [certain] land [ ] to conserve and improve the soil, water, and wildlife resources of such land"); Agricultural Water Quality Incentives Program, 16 U.S.C. §3838(a) (2006) ("The Secretary shall establish and, for each of fiscal years 2003 through 2011, carry out a conservation security program to assist producers of agricultural operations in promoting, as is applicable with respect to land to be enrolled in the program, conservation and improvement of the quality of soil, water, air, energy, plant and animal life, and any other conservation purposes, as determined by the Secretary").

[62] Wetlands Reserve Program, 16 U.S.C. §3837a (2006) ("To be eligible to place land into the wetland reserve under this [statute], the owner of such land shall enter into an agreement with the Secretary— (1) to grant an easement on such land to the Secretary; (2) to implement a wetland easement conservation plan as provided for . . . ; (3) to create and record an appropriate deed restriction in accordance with applicable State law to reflect the easement agreed to under this [statute] with respect to such lands; and (4) to provide a written statement of consent to such easement signed by those holding a security interest in the land."); Environmental Easement Program, 16 U.S.C. §3839(a) (2006) ("The Secretary shall, during the 1991 through 1995 calendar years, formulate and carry out an environmental easement program . . . through the acquisition of permanent easements or easements for the maximum term permitted under applicable State law from willing owners of eligible farms or ranches in order to ensure the continued long-term protection of environmentally sensitive lands or reduction in the degradation of water quality on such farms or ranches through the continued conservation and improvement of soil and water resources.").

[63] Forest Legacy Program, 16 U.S.C. §2103(a) (2006) ("The Secretary of Agriculture shall establish a forest land enhancement program—(A) to provide financial assistance to State foresters; and (B) to encourage the long-term sustainability of nonindustrial private forest lands in the United States by assisting the owners of nonindustrial private forest lands, through State foresters, in more actively managing the nonindustrial private forest lands and related resources of those owners through the use of State, Federal, and private sector resource management expertise, financial assistance, and educational programs. (2) Coordination and consultation. The Secretary, acting through State foresters, shall implement the program—(A) in coordination with the State Forest Stewardship Coordinating Committees; and (B) in consultation with other Federal, State, and local natural resource management agencies, institutions of higher education, and a broad range of private sector interests."); Forestry Incentives Program, 16 U.S.C. §2101(b) (2006) (Purpose) ("It is the purpose of this Act to authorize the Secretary of Agriculture [ ] with respect to non-Federal forest lands of the United States, and forest lands in foreign countries, to assist in—(1) the establishment of a coordinated and cooperative Federal, State, and local forest stewardship program for management of the non-Federal forest lands").

[64] Swampbuster Program 16 U.S.C. §3811(a) (2006) (program ineligibility) (". . . (a) In general. [ ] any person who in any crop year produces an agricultural commodity on a field on which highly erodible land is predominate, or designates land on which highly

This survey of legislative goals, mandates, and incentives affecting public natural resources shows an ongoing commitment to steward natural resources in the interests of present and future generations. In light of the documented failure of existing laws to achieve this goal, the next section suggests a new approach to supplement public natural resource management laws that would enable us to preserve a legacy of public natural resources.

III. The Contours of a National Environmental Legacy Act

The concept underlying a National Environmental Legacy Act is to define and protect a legacy of public natural resources[65] for future generations, something no statute has done successfully to date. Building on the goals already expressed in numerous laws, NELA would for the first time require management of public resources to conserve some stock of resources for future generations. Embrace of the Legacy Act concept would impel us to identify our long term goals and then help us to chart and maintain a course to achieve our shared goals. It would also improve our decisions over the long term by generating the information base needed to support adaptive learning.

At a minimum, the idea of a Legacy Act envisions a statute that defines the public natural resource legacy we wish to preserve and prohibits all actions that will degrade or deplete the defined legacy. These two core objectives of the statute are guideposts that suggest the general contours of the statute. Building on these objectives, we propose the following model to achieve the goals of the statute:[66]

Section 1: Goals and Policy: The statute should set out the goal of defining and preserving a legacy of public natural resources for present and future generations of Americans. The statement of goals and policy should also describe in affirmative terms the legacy we wish to leave, defined in relation to our existing stock of resources.

Section 2: Designation of a Legacy Period: The statute should designate a fixed period of years that constitutes the legacy period, over which public natural resources must be conserved.[67]

---

erodible land is predominate to be set aside, diverted, devoted to conservation uses, or otherwise not cultivated under a program administered by the Secretary to reduce production of an agricultural commodity, as determined by the Secretary shall be ineligible for—(1) as to any commodity produced during that crop year by such person . . ."); The Coastal Barrier Resources Act was enacted to discourage coastal development. 16 U.S.C. §3501 *et seq.* (2006). "The Congress declares that it is the purpose of this Act to minimize the loss of human life, wasteful expenditure of Federal revenues, and the damage to fish, wildlife, and other natural resources associated with the coastal barriers along the Atlantic and Gulf coasts and along the shore areas of the Great Lakes by restricting future Federal expenditures and financial assistance which have the effect of encouraging development of coastal barriers, by establishing the John H. Chafee Coastal Barrier Resources System, and by considering the means and measures by which the long-term conservation of these fish, wildlife, and other natural resources may be achieved." 16 U.S.C. §3501(b) (2006).

[65] For purposes of discussion, we propose a very broad definition of public natural resources that includes all resources under federal ownership or protected by the federal public trust doctrine, together with all the values and services associated with these resources. Thus this would include forests, wetlands, and uplands on public lands and all the species of life found in these ecosystems, as well as fisheries under federal protection or control. Minerals encompassing hardrock minerals as well as oil, gas, and other energy resources would also be covered. The values and services these resources provide to humans are numerous and varied. For example lands within a National Forest may provide timber for consumptive use, habitat for wildlife, carbon sequestration, watershed and erosion protection, aesthetic, spiritual, and recreational values, to name a few.

[66] To design the statute will require both considerable technical work and further elaboration of value choices. This sketch of the statute's contours includes section numbers for ease of reference. However, it is intended as a sketch of the contours of a Legacy Act, not a detailed statutory proposal.

[67] At the conclusion of each legacy period, a new legacy period would commence. For a thoughtful discussion of how to define future generations that could inform selection of a legacy period, see Weston, *supra* note 11, at 383–88.

Section 3: Prohibited Degradation or Depletion of Legacy Resources: The statute should set forth in clear and enforceable terms the maximum level of degradation or depletion of resources that will be permitted over the course of the legacy period, if any. This is the critical enforceable substantive standard of the statute. The statute should in broad terms prohibit actions by any person[68] whether public or private that may cause impermissible degradation or depletion of a legacy resource – that is, degradation or depletion that exceeds the substantive standard over the legacy period.[69]

Section 4: Designation of Legacy Resource Stewardship Agencies: The statute should designate an existing federal agency to serve as the resource stewardship agency ("stewardship agency") for each public natural resource.[70]

Section 5: Development of Metrics and Collection of Baseline Data on Resource Quality and Quantity: Each stewardship agency should be charged with developing implementing regulations that designate appropriate metrics of quality and quantity for the resources for which they are stewards. The statute should both mandate and authorize adequate funding for collection of baseline data on the quality and quantity of all public natural resources employing these metrics.

Section 6: Promulgation of Rules Defining Maximum Permitted Levels of Degradation and Depletion Over the Legacy Period: Each stewardship agency should be required to promulgate rules that implement the statute by elaborating the quantity and quality of degradation or depletion of the relevant resource that constitute impermissible degradation or depletion under the statute, using the metrics developed under Section 5.

Section 7: Stewardship Agency Mandate to Ensure No Impermissible Degradation Will Occur (Prohibition and Planning): The statute should limit stewardship agencies' discretion under existing law by requiring that each stewardship agency ensure that no degradation or depletion in excess of permissible limits will occur during the legacy period.[71] The statute

---

[68] The term should be very broadly defined to include all public and private actors. *See, e.g.,* 16 U.S.C. §1532(13). The statute should make clear that the prohibition on actions that impermissibly degrade or deplete legacy resources applies both to private actors and to stewardship agencies whose actions affect the relevant resource—including management, permitting, and leasing of the resource.

[69] For biological, as opposed to mineral resources, preserving the ecosystem on which the resources depend may be a more important goal than preserving a precise quality and quantity of resources. Management decisions that focus on preserving individual resources may not be optimal for preserving the ecosystem as a whole. The ecological concept of resilience may offer a way to negotiate this tension. The Act could require preservation of the quantity and quality of individual resources that comprise the legacy. However, the statute could also impose an overriding mandate that agencies not permit activities that will cause an ecosystem to lose its resilience. This application of the concept of resilience is explored further in Alyson C. Flournoy, *Protecting a Natural Resource Legacy While Promoting Resilience: Can it Be Done?,* 87 Neb. L. Rev. __ (forthcoming 2009).

[70] Where an agency has stewardship responsibilities for a particular resource under existing law, it would seem most efficient to designate that agency for this role, unless past experience suggests this would be inconsistent with achieving the purposes of the Act.

[71] It would be important to consider whether Section 7 should draw a distinction between degradation and depletion that results from post-Legacy Act human conduct and degradation or depletion that can be shown to be either (a) not the result of human activity (e.g. normal ecosystem variation or the result of a natural disaster such as a tornado) or (b) the product of human actions taken before enactment of the Legacy Act. The Legacy Act is designed primarily as a tool to help the current generation to make decisions that will accomplish its goals in terms of leaving a natural resource legacy. As a matter of policy, we might therefore choose a different response in these two latter situations, which are by definition outside our control. So for example, the statute might provide for an *alternative* duty that would apply in cases in which degradation or depletion does not result from human activity or results from human activity taken prior to the adoption of the Act. For further ideas on how the ecological concept of resilience might help to define that duty, see Flournoy, *supra* note 69.

should also specifically mandate that each stewardship agency develop a "legacy plan" to demonstrate how it will ensure that the mandated resource legacy is conserved over the legacy period and to conform its actions to the legacy plan.[72]

Section 8: Enforcement: To ensure enforcement, both the agency and citizens should be granted enforcement authority. A citizen suit provision with fee-shifting would be a critical component of the statute. It should authorize any person to bring an action to enjoin and seek penalties for any action that impermissibly degrades or depletes public natural resources. The statute should also permit citizen suits against the stewardship agency to enforce other agency duties under the statute, including the duty to collect information, the duty to develop or update a legacy plan, and the duty to conform agency actions to the terms of the legacy plan.

Section 9: Monitoring and Adaptive Learning: The statute should require and authorize funding for stewardship agencies for ongoing monitoring of legacy resources and should require stewardship agencies to update legacy plans according to a fixed schedule.

Section 10: Exceptions: The statute should allow for a narrow exception to its prohibition on degradation or depletion in two circumstances: if it can be shown by clear and convincing evidence that (1) foreseeable technological advances or the availability of substitute resources will obviate the need for or value of the resource in question and all associated values and services or (2) impermissible degradation or depletion is clearly in the public interest, no acceptable alternative that will not cause impermissible degradation or depletion exists that will serve the public interest adequately, and the impacts to all services and values to be impaired can be and will be mitigated.

This sketch of a new statutory model departs from current natural resource management statutes in several fundamental and important respects. Among the innovations of prime importance are the following:

- The Legacy Act requires us to consider the effects, including cumulative impacts, that our actions have on public natural resources over a substantial time horizon.
- The Legacy Act provides a framework for defining the quantity and quality of various public natural resources that we choose to maintain over a defined time period.
- The Legacy Act mandates that natural resource management agencies develop plans that will conserve the desired quantity and quality of resources over a defined time period.
- The Legacy Act shifts the burden of proof, requiring those who would take actions that may deplete or degrade a public natural resource to provide adequate assurance that any depletion or degradation will not impermissibly impair our legacy.
- The Legacy Act combines the best available science with techniques such as metrics to permit sound decision making notwithstanding uncertainty.

[72] For those agencies that already undertake planning regarding the relevant resource, this duty should be coordinated with the agencies' planning duties under existing enabling acts.

- Under the Legacy Act, agencies are required to adopt rules that will implement their plans, and permitting and other decisions affecting the resources must comply with the plan and rules.
- The Legacy Act provides for adaptive learning and transparency. It provides a framework for policy to evolve as changes in the available information or our values dictate and enables not just federal agencies but states, local governments, and the public to benefit and learn from experience and information collected under the Act.

V. Conclusion

Adopting a National Environmental Legacy Act would represent a first step toward defining and protecting our environmental legacy. Just as individuals with private wealth engage in estate planning to ensure that their wealth is protected for the next generation, NELA provides a mechanism to ensure that public wealth is preserved. Under current law, there is no mechanism for evaluating—much less consciously shaping—the resource legacy we leave to the next generation.

Departing from past models of public natural resource and land management, the Legacy Act provides a framework to protect the interests of our children and grandchildren in public natural resources. It demands that we identify our long term goals and then provides a tool to help us steer a course that will achieve our shared goals. By combining a clear statement of objectives with planning and enforceable rules, NELA creates a more effective model for achieving intentional stewardship of our public natural resources. It is designed to permit adaptive learning and effective decisionmaking in the face of uncertainty and to promote transparency. As such, a Legacy Act would serve as a useful complement to traditional natural resource management laws and a first step towards a new generation of environmental laws.