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Cover Page Footnote
J.D. Candidate, 2005, Fordham University School of Law. I would like to thank my friends and family, especially Michael Reilly and my parents, Julius and Lori, for their unending patience, love, support, and encouragement. I am grateful to Professor Eduardo Penalver for his guidance and assistance.

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JUST KEEP SWIMMING: GUIDING ENVIRONMENTAL STEWARDSHIP OUT OF THE RIPTIDE OF NATIONAL SECURITY

Julie G. Yap*

In 1996, after a North Atlantic Treaty Organization ("NATO") vessel conducted sonar activities off the coast of Greece, twelve beaked whales stranded themselves.1 In March 2000, four different species of whales and dolphins reached themselves in the Bahamas after the Navy conducted active sonar testing in the area.2 In April 2002, a beaked whale and a humpback whale stranded themselves in Puerto Rico after naval exercises in the surrounding waters.3 In September 2002, fourteen beaked whales stranded themselves on the Canary Islands only hours after an international naval exercise utilizing powerful sonar systems.4 In May 2003, during sonar operations conducted by the USS Shoup, a pod of twenty-two killer whales stopped feeding and gathered in a tight group to swim close to shore.5 After this exercise, at least ten porpoises stranded themselves and died.6 In July 2004, U.S. and Japanese naval training exercises off the coast of Kaua'i, Hawaii, coincided with a stampede to shallow water by a pod of up to 200 melon-headed whales, and resulted in the

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stranding death of one juvenile member of the pod. In the same month, two dead whales arrived on the Fuerteventura Coast of Spain after NATO military exercises off the coast of Morocco. Fishermen in the area reported seeing something that looked like a third dead whale floating a few miles from the shore.

Since the 1980s, the Navy has been investing its resources in a sonar system that can detect increasingly quiet submarines by sending out high intensity, low-frequency noise. Congressional testimony reveals that “potential adversaries, including China, North Korea and Iran, have developed ultra-quiet diesel-electric submarines.” Over the past decade, the Navy has tested these Low Frequency Active (“LFA”) sonar systems without preparing Environmental Impact Statements (“EIS”), a procedural requirement mandated by the National Environmental Policy Act (“NEPA”) to ensure that environmental concerns are properly addressed when major federal actions are proposed. Recently, the Navy had been preparing to test its new and very powerful sonar system called Surveillance Tower Array Sensor System Low Frequency Active (“SURTASS LFA”) sonar. Each loudspeaker in the SURTASS LFA acts like a floodlight, capable of generating 215 decibels of sound. Hundreds of miles from the system, the sound level can continue to resonate at 140 to 160 decibels. The accelerated research conducted by the Navy...
and scientists in this area has shown that the LFA sonar has a palpable
effect on both marine mammals\textsuperscript{15} and human divers.\textsuperscript{16} Despite these
concerns, the Bush administration issued a permit allowing the Navy
to test the SURTASS LFA system in up to seventy-five percent of the
world's oceans.\textsuperscript{17}

The balance between national security and the environment is a
difficult and complex problem without an easy answer. It is
undeniable that national security is an important interest that, at
times, must take priority. The country's awareness of the importance
of military readiness and national security was awakened with the
tragic events of September 11, 2001, the subsequent "War on Terror,"
and the war in Iraq.\textsuperscript{18} As a result, the government drastically changed
its approach to how it handled important environmental concerns in
relation to equally if not more important national defense issues.
Perhaps in this change, the principle that "we must not destroy the
very thing we would fight to protect"\textsuperscript{19} was left behind. As then-
Defense Secretary and current Vice President Dick Cheney stated:
"Defense and the environment is not an either/or proposition. To
choose between them is impossible in this real world of serious
defense threats and genuine environmental concerns."\textsuperscript{20}

\begin{itemize}
\item hearing damage in humans. \textit{See id.} (stating that 160 decibels is "well beyond the
Navy's own safety levels for humans"); \textit{see also} Defenders of Wildlife, LFA Sonar: A
Deadly Technology, \textit{at} http://www.defenders.org/wildlife/new/marine/whales/sonar.html (last visited Oct. 31,
2004).
\item 15. \textit{See} Peter Tyack, The LFA Scientific Research Program, in Executive
Summary, \textit{supra} note 9. Dr. Tyack conducted experiments sponsored by the Navy in
an effort to address concerns about the effective range of the LFA system. \textit{Id.} He
carried out\textsuperscript{19} tests on three different species and settings: blue and fin whales feeding in
the Southern Californian bight, gray whales migrating past the central California
coast, and humpback whales breeding off the Hawaiian Islands. \textit{Id.} When researchers
broadcast a series of low-frequency pulses and waves that simulated the LFA signals
(at lower intensities), the number of fin and blue whales heard vocalizing decreased,
gray whales deviated from their migration paths, and about a third of the singing
whales stopped singing. \textit{Id.}
\item 16. Executive Summary, \textit{supra} note 9.
A number of Navy divers, who as part of an official study of the system's
effects had been exposed to transmissions on the order of 160 decibels
(received level), claimed to have felt vertigo, motion sickness, and odd
sensations in the abdomen and chest. One subject who experienced these
symptoms shortly after surfacing appears to have suffered a series of
relapses, beginning one hour after his initial recovery; months later he would
complain of irritability, mental dysfunction, and "seizures."
\textit{Id.} (internal citations omitted).
\item 17. \textit{Id.}
\item 18. \textit{See infra} Parts I.D-F.
\item 19. Stephen Dycus, National Defense and the Environment 10 (1996); \textit{see also}
Ekundayo B. George, \textit{Whose Line in the Sand: Can Environmental Protection and
National Security Coexist, and Should the Government Be Held Liable for Not
Attaining This Goal?}, 27 Wm. & Mary Envtl. L. & Pol'y Rev. 651, 672 (2003) (citation
omitted).

This controversy is especially apparent in the case of *Natural Resources Defense Council v. Evans* and the subsequent legislation that addressed the district court's findings in that case. In August 2002, the Natural Resources Defense Council brought suit against the National Marine Fisheries Service (the executive agency that granted the broad permit to test and use LFA sonar) and the Navy in the U.S. District Court for the Northern District of California. The district court issued a permanent injunction in August 2003 as a result of its findings that the Navy had violated NEPA, the Endangered Species Act ("ESA"), and the Marine Mammal Protection Act ("MMPA") in its preparation and proposed implementation of LFA sonar testing. Subsequently, a settlement agreement was reached, which would limit the times and areas for LFA testing in an effort to minimize the effect of military sonar exercises on marine mammal populations.

The testing and use of mid-frequency sonar, which the majority of Navy vessels are equipped with and which international armed forces also use, was not addressed by the settlement agreement reached after *Evans*. While LFA sonar can reach farther distances at the same high decibel levels, mid-frequency sonar is the type of sonar that has been linked to the many instances of beachings beginning in 1996. In the summer of 2004, a coalition of environmental groups petitioned the Navy to discuss possible measures to mitigate and monitor the effects of the sonar on marine life, and threatened to pursue litigation on this issue if no compromise could be reached.

In December 2003, Congress passed the National Defense Authorization Act for Fiscal Year 2004 ("National Defense Authorization Act"), legislation that adds broad exemptions to the MMPA for the armed forces for national security concerns and military readiness activities. It rolls back the armed forces' necessary compliance with the ESA in certain circumstances. In effect, this

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Defense Secretary Dick Cheney, Address to Defense and Environmental Initiative Forum (Sept. 3, 1990)).
22. Id.
28. Id.
29. See Coalition Warns Navy, supra note 7.
30. See id.
32. Id. § 318, 117 Stat. at 1433.
legislation directly addresses and undermines the district court’s ruling in *Evans*.\(^3\) This legislation may have major ramifications on ocean life and marine mammals specifically because, while the Natural Resources Defense Council and the Navy reached an agreement on the testing of low-frequency active sonar, the controversial issue of mid-frequency sonar testing is still unsettled. The legislation also prompted the administration to appeal the ruling limiting deployment of LFA sonar.\(^4\) The shift in the legislature’s policy set against the background of the ever-present threat of terrorism also illustrates a shift from the way that the country has previously approached and balanced two complex and important concerns: national defense and the environment.

This Note seeks to explore the relationship between national defense and environmental legislation. It will use the circumstances of *Evans*, the National Defense Authorization Act, and the controversial issue of military sonar testing as a lens to look at the broader policy matter of how the government and the public should balance national security and environmental concerns. Part I describes the context of the mid-frequency sonar debate, describing the deleterious effect of sonar on marine mammals, the major environmental laws, the litigation over low-frequency active sonar, and the subsequent military exemptions granted by Congress. Part II considers the effect of this legislation on the Navy’s testing of mid-frequency sonar, which many link to numerous incidents of whale beachings worldwide. It shows how the controversy over what limitations, if any, the government should apply to military sonar testing is an example of the need for a sustainable framework for analyzing environmental legislation while acknowledging and balancing national security concerns. It then evaluates the potential frameworks that the government branches use or could use to appraise environmental action, namely the traditional response-based approach, the popular cost-benefit analysis, and the theoretical constitutive law framework. Part III proposes that this constitutive law framework better addresses the complexity of the struggle between important competing social values and that this framework is particularly helpful in the context of debates over national security and the environment, such as the debate over mid-frequency sonar testing. It also suggests several plausible ways of how the government should allocate responsibility for environmental legislation and enforcement in light of serious concerns about national security.


I. THE SCIENTIFIC, LEGAL, PHILOSOPHICAL, POLITICAL, AND POPULAR BACKDROP OF THE SONAR DEBATE

In addressing the conflicts that can arise from the interplay between national security and the environment, specifically in the current mid-frequency sonar debate, it is important to understand the various sectors and influences that are implicated by the choices the government and society make. Part I.A details the scientific findings regarding the harmful effects of sonar testing on whales and other marine mammals. Part I.B summarizes the major federal environmental laws implicated by military sonar testing, namely, NEPA, the ESA, and the MMPA. Part I.C outlines frameworks that are used or could be used by the government, and specifically by Congress, to assess the appropriateness of military environmental action. Part I.D describes the popular and political shift in approaches to environmental law and enforcement in the wake of the September 11, 2001 attacks and the subsequent “War on Terror.” Part I.E gives an overview of the analysis of the court in *Evans* to show how the legislative and judicial system provided an answer to the competing relationship between the important national security issues and environmental concerns. Part I.F describes the Natural Defense Authorization Act, which granted military exemption from certain environmental laws.

A. The Deleterious Effects of Military Sonar Testing on Marine Life

Both low- and mid-frequency sonar can seriously harm marine mammals and other marine life. “Scientists agree, and the publicly available scientific literature confirms, that the intense sound generated by military active sonar can induce a range of adverse effects in whales and other species, from significant behavioral changes to stranding and death.”

The most dramatic effects of sonar on marine life are the mass strandings of beaked whales and other marine mammals that have been linked to military trainings and testings utilizing sonar, in particular mid-frequency sonar.

The Navy admits that sonar probably caused the strandings in the Bahamas. The beached whales exhibited signs of extreme auditory trauma, including “hemorrhaging in and around their ears and in parts of their brains— injuries consistent with damage from intense sound . . .” Since this incident, the population of beaked whales in the area has disappeared, either because they abandoned their habitat or died at sea. Necropsies of the whales from the Canary Islands

36. *Id.*
beachings showed evidence of acute and chronic tissue damage resulting from the formation of large nitrogen gas bubbles.\textsuperscript{40} The tissue damage was similar to acute trauma that occurs in divers when they surface too quickly resulting in rapid decompression.\textsuperscript{41} Sonar appears to be the cause of the formation of these gas bubbles, which damaged the whales' livers and kidneys.\textsuperscript{42} Scientists have been unable to determine whether the sonar caused the whales to surface quickly out of panic or whether the waves “had a direct effect on their tissues, causing tiny, harmless bubbles of gas to balloon dangerously large.”\textsuperscript{43} The one thing scientists can say “is that exposure to military sonar is probably deleterious to these animals,” and the most “alarming thing is that it may be more widespread than [they] currently know.”\textsuperscript{44}

B. Environmental Laws Implicated by the Navy's Use of Sonar

One method for addressing the effects of sonar on marine life is to ensure that the military is complying with major environmental laws. Part I.B addresses the three major laws that the district court relied on in issuing the permanent injunction for the Navy's testing of LFA sonar in \textit{Evans}: NEPA,\textsuperscript{45} the ESA,\textsuperscript{46} and the MMPA.\textsuperscript{47} The following brief summary of these laws will give a more complete picture of the purposes of the laws, the procedural structures of the laws, and the role of the public and the separate branches of government in enforcement. This synopsis will also address the current military exemptions to environmental legislation, both statutorily and practically, to provide a more complete picture of how issues of national defense and the environment interrelated prior to the

\begin{itemize}
\item \textsuperscript{40} Jepson et al., supra note 4.
\item \textsuperscript{41} Id.
\item \textsuperscript{42} Rex Dalton, \textit{Scientists Split Over Regulations on Sonar Use}, \textit{Nature}, Oct. 9, 2003, at 549.
\item \textsuperscript{43} Chui, supra note 6.
\item \textsuperscript{44} Id. In July 2004, the Scientific Committee of the International Whaling Commission (“IWC”) stated that there is “compelling evidence that entire populations of whales and other marine mammals are potentially threatened by increasingly intense man-made underwater noise both regionally and ocean-wide...” Press Release, Natural Resources Defense Council, Whaling Commission’s Science Panel Says Marine Mammals Threatened by Man-Made Noise (July 20, 2004), at http://www.nrdc.org/media/pressreleases/040720.asp. The Committee reported: “The weight of accumulated evidence now associates mid-frequency, military sonar with atypical beaked whale mass strandings.” Id. (internal quotations omitted). “The Committee noted that species other than beaked whales, such as pygmy sperm whales, minke whales and striped dolphins have also stranded in these events.” Id. The report also raised concern that “assessments of stranding events do not account for animals that are severely affected or died but did not strand.” Id. (internal quotations omitted).
\item \textsuperscript{45} National Environmental Policy Act, 42 U.S.C. §§ 4321-4370(a) (2000).
\item \textsuperscript{46} Endangered Species Act, 16 U.S.C. §§ 1531-1544 (2000).
\item \textsuperscript{47} Marine Mammal Protection Act, 16 U.S.C. §§ 1361-1421 (2000).
\end{itemize}
enactment of the National Defense Authorization Act,\(^\text{48}\) which changed the compliance requirements for the military under the MMPA and the ESA.

1. National Environmental Policy Act

NEPA was enacted "[t]o declare a national policy which will encourage productive and enjoyable harmony between man and his environment,"\(^\text{49}\) and "[t]o insure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking along with economic and technical considerations."\(^\text{50}\) While this statute is "our basic national charter for the protection of the environment,"\(^\text{51}\) the requirements of NEPA are "essentially procedural."\(^\text{52}\) The most important procedural mandate of NEPA is the preparation of an EIS before the implementation of any major federal action that significantly affects the environment.\(^\text{53}\) The EIS must include the environmental impact of the proposed action, adverse environmental impacts that cannot be avoided, the relationship between short-term uses and long-term productivity, and any irreversible and irretrievable commitments of resources.\(^\text{54}\) This report must be made available to the public.\(^\text{55}\) The EIS must also discuss "all reasonable alternatives to the proposed action, along with the environmental consequences of each alternative, so both the decision-maker and the public can make an educated choice among the options."\(^\text{56}\) The discussion of the alternatives "must include different actions that may obtain the same objective, different ways of carrying out the same action that might be less harmful to the environment, and the consequence of doing nothing."\(^\text{57}\) The EIS must also address possible measures to monitor the effects of the proposed action as well as measures to mitigate the damage of the action.\(^\text{58}\)

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\(^{49}\) 42 U.S.C. § 4321.

\(^{50}\) Id. § 4332(B).

\(^{51}\) Dycus, supra note 19, at 12 (quoting 40 C.F.R. § 1500.1(a) (2003)).


\(^{53}\) 42 U.S.C. § 4332(C).

\(^{54}\) Id.

\(^{55}\) Id.

\(^{56}\) Dycus, supra note 19, at 13-14. "The discussion of alternatives is meant to influence not only agency decision-makers, but also the President and members of Congress for the guidance of these ultimate decision-makers ... for their consideration along with the various other elements of the public interest." Id. at 221 n.14 (citing Natural Res. Def. Council, Inc. v. Morton, 458 F.2d 827, 835 (D.C. Cir. 1972)).

\(^{57}\) Id. at 14 (citing 40 C.F.R. §§ 1502.14, 1502.16, 1508.25(b) (2003)).

\(^{58}\) Id. (citing Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 351-52 (1989); 40 C.F.R. §§ 1502.14(f), 1502.16(h), 1505.2(c), 1508.25(b)).
NEPA also created the Council on Environmental Quality ("CEQ"), which has the responsibility of monitoring the administration of the Act.\(^{59}\) For actions that do not normally produce a significant environmental impact, CEQ regulations allow categorical exclusions.\(^{60}\) If an action is not excluded by a CEQ regulation, the federal agency proposing the action can prepare a less detailed report called an Environmental Assessment ("EA") to conclude whether a significant impact exists that calls for the more in-depth analysis of an EIS.\(^{61}\) If the agency finds that there is not a significant impact, that agency will issue a finding of no significant impact ("FONSI") setting forth its reasons for this conclusion.\(^{62}\) Most NEPA litigation involves challenges to the adequacy of the prepared impact statement,\(^{63}\) challenging either a FONSI by the federal agency\(^{64}\) or the substantive requirements of the prepared EIS.\(^{65}\)


\(60\) 40 C.F.R. § 1507.3 (b)(2)(ii) ("Agency procedures shall comply with these regulations except where compliance would be inconsistent with statutory requirements and shall include . . . [specific criteria for and identification of those typical classes of action . . . [which normally do not require either an environmental impact statement or an environmental assessment. . . .]"); 40 C.F.R. § 1508.4. The regulation defines categorical exclusions as

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\text{a category of actions which do not individually or cumulatively have a significant effect on the human environment and which have been found to have no such effect in procedures adopted by a Federal agency in implementation of these regulations . . . and for which, therefore, neither an environmental assessment nor an environmental impact statement is required.}
\
\textit{Id.}
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\(61\) See Dycus, \textit{supra} note 19, at 14.

\(62\) 40 C.F.R. §§ 1501.3, 1501.4(b)-(c), (e), 1508.9, 1508.13.

\(63\) Dycus, \textit{supra} note 19, at 15; see Cetacean Cmtty. v. Bush, 249 F. Supp. 2d 1206, 1208 (D. Haw. 2003) (discussing plaintiffs' allegation of failure to prepare an EIS for the use of LFAS during threat and warfare conditions); \textit{see also} Progressive Animal Welfare Soc'y v. Dep't of the Navy, 725 F. Supp. 475, 476 (W.D. Wash. 1989) (discussing plaintiffs' allegation that defendants failed to meet NEPA requirement of preparing an EA or an EIS and requirement of proposing alternatives for the proposed action of taking dolphins from the wild for military use).

\(64\) Dycus, \textit{supra} note 19, at 15. "According to CEQ regulations, significance \[for the purpose of a finding of no significant impact (FONSI)\] depends upon such concerns as effects on public health and safety, the uniqueness of affected resources, threats to endangered species, and the degree to which the effects might be highly controversial." \textit{Id.}\ The agency must make a searching and careful inquiry into whether an EIS is prepared, but the Supreme Court has indicated that it will not disturb an agency's decision unless it is arbitrary and capricious. Marsh v. Or. Natural Res. Council, 490 U.S. 360, 374-75, 378 (1989) (discussing the standard for a supplemental EIS, but indicating that the same standard applies to the preparation of an initial EIS).

NEPA does not contain specific measures to exclude the military. It is well settled that NEPA does apply to the military, even though the statute does not explicitly provide for this.\textsuperscript{66} The statute provides that all federal agencies must comply “to the fullest extent possible.”\textsuperscript{67} The EIS is subject to the limits of the Freedom of Information Act (“FOIA”).\textsuperscript{68} Therefore, if the military is exempted under FOIA from disclosing to the public classified material dealing with national security, the procedural mandates of NEPA cannot override this exemption.\textsuperscript{69} This situation, where NEPA applies and FOIA is invoked, must be handled in most cases by the judiciary.\textsuperscript{70} The history of judicial deference to the military’s declarations of national security concerns\textsuperscript{71} makes NEPA an ineffective tool for communities to “stop a major federal action or... to force serious consideration of environmental impacts.”\textsuperscript{72}

\begin{footnotesize}
\begin{enumerate}
\item Dycus, supra note 19, at 16; see Evans, 279 F. Supp. 2d at 1164-75; Linnon, 967 F. Supp. at 602-04. See generally Progressive Animal Welfare Soc’y, 725 F. Supp. at 475.
\item 42 U.S.C. § 4332 (2000). However, the CEQ may provide limited exceptions in the interest of national defense:
\begin{itemize}
\item Agency procedures may include specific criteria for providing limited exceptions to the provisions of these regulations for classified proposals. They are proposed actions which are specifically authorized under criteria established by an Executive Order or statute to be kept secret in the interest of national defense or foreign policy and are in fact properly classified pursuant to such Executive Order or statute.
\end{itemize}
\item 40 C.F.R. § 1507.3.
\item 5 U.S.C. § 552(b)(1) (2000). FOIA generally mandates that government agencies make available to the public information such as descriptions of the organization, statements of the general course and method by which functions are channeled and determined, and rules of procedure. Id. § 552(a). However, FOIA “does not apply to matters that are... specifically authorized under criteria established by an Executive order to be kept secret in the interest of national defense or foreign policy and... are in fact properly classified pursuant to such Executive order.” Id. § 552(b)(1).
\item See Dycus, supra note 19, at 18-19, for a case study analyzing Concerned About Trident v. Rumsfeld, 555 F.2d 817 (D.C. Cir. 1977). The Navy began construction of a base in Bangor, Washington, on Puget Sound to develop the Trident submarine. When litigation began due to community concerns of the environmental impact of the base and the project, the court agreed that the Navy had failed to consider relevant and necessary information in the final EIS, but refused to halt construction of the base. Dycus, supra note 19, at 18-19. While the court found the EIS inadequate, it paradoxically stated that “the Navy gave proper weight to environmental considerations in deciding to proceed with this strategically important project.” Id. at 19 (quoting Trident, 555 F.2d at 817). Dycus uses this case study to provide another example of “national security concerns... trum[p]ing] strict compliance with the statute.” Id.
\end{enumerate}
\end{footnotesize}
The U.S. Supreme Court’s opinion in Weinberger v. Catholic Action, a case in which the Court rejected a NEPA challenge to a Navy construction project, illustrates the degree of judicial deference afforded to the military when the issue of national security is invoked. In Catholic Action, the Navy built forty-eight earth-covered magazines on Hawaii that had capabilities for storing nuclear weapons. Actual nuclear storage at the site could not be confirmed due to classification for national security reasons. No EIS was prepared. "A local citizens’ group . . . filed suit calling for an EIS that would analyze: (1) the risk and consequences of a nuclear accident, (2) the effect of a plane from nearby Honolulu International Airport crashing into one of the magazines, and (3) the hazard to local residents from low-level radiation." The U.S. Court of Appeals for the Ninth Circuit had ordered that the Navy prepare a hypothetical EIS for a facility capable of storing nuclear weapons. The Supreme Court held that an EIS was not required because the Navy was only contemplating storing nuclear weapons at the site; nuclear storage was not actually proposed. The Court also stated that “[u]ltimately, whether or not the Navy has complied with NEPA ‘to the fullest extent possible’ is beyond judicial scrutiny” because the trial would ultimately lead to the disclosure of confidential information. Given this level of judicial deference to military secrecy, the invocation of national security by the military would almost always eliminate NEPA’s effectiveness as a check on the military’s decision-making process, even when the proposals and decisions may involve major risks to the community and the environment where the proposed action is to occur.

the 4th Circuit’s ruling in Citizens Concerned About Jet Noise, Inc. v. Dalton, 217 F.3d 838 (4th Cir. 2000), that upheld all aspects of the EIS prepared by the Navy.

73. 454 U.S. at 139.
74. Id. at 141.
75. Id.
76. Id.
77. Dycus, supra note 19, at 25.
78. Catholic Action, 454 U.S. at 140-41.
79. Id. at 146.
80. Id. at 146-47.
81. See Nancye L. Bethurem, Environmental Destruction in the Name of National Security: Will the Old Paradigm Return in the Wake of September 11?, 8 Hastings W.-Nw. J. Env’t L. & Pol’y 109 (2002). Additionally, in connection with complying with environmental laws, the Department of Defense has the option to ‘classify’ certain material, such as NEPA documents, which makes the document unavailable for review by the public, thus eliminating any ability of the public to provide comments on the document. The courts have upheld this ‘non-public’ NEPA compliance, by holding that the need for secrecy outweighs the public’s desire to be apprised of the activities of the military.

Id. at 120.
2. Endangered Species Act

The purpose of the ESA is "to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved [and] to provide a program for the conservation of such endangered and threatened species." Under the ESA, federal agencies must ensure that any action is not likely to jeopardize endangered or threatened species directly or by destruction of their critical habitat. To achieve these ends, if an endangered species may be present in the area of a proposed action, federal agencies are required to conduct a biological assessment identifying how endangered and threatened species will likely be affected by the action, using "the best scientific and commercial data available." If an action is approved that might involve the incidental taking of endangered or threatened species, the federal agency must prepare a statement that specifies the impact of the incidental takings on the species and the measures appropriate to minimize such impact. The preparation of this Incidental Take Statement ("ITS") acts as a safe harbor provision, "immunizing persons from...liability and penalties for takings committed during activities that are otherwise lawful." This statement also acts as "a trigger that, when reached, results in an unacceptable level of incidental take." The ESA has a special exemption for national security reasons if the Secretary finds that such an exemption is necessary. In this circumstance, the agency must still establish reasonable mitigation and enhancement measures to minimize the adverse effects on the endangered species or its critical habitat, and submit a report describing its compliance with such measures. The criteria for meeting the national security exemption are strict, and the provision has never been invoked for military training and readiness activities.

83. Id. § 1531(b).
84. Id. § 1536(a)(2).
85. Id. § 1536(c).
86. See id. § 1536(a)(2).
87. Id. § 1536(c).
88. Ariz. Cattle Growers' Ass'n v. United States Fish & Wildlife, 273 F.3d 1229, 1239 (9th Cir. 2001).
89. Id. at 1249. The ITS does not require a specific number to act as a trigger, when the determination of that number would not be feasible. Id. at 1249-50. The defendant must prove that no specific number could be obtained. Id. at 1250. Where this is true, the agency must at least set forth some "surrogate for defining the amount or extent of incidental take." Id. at 1234.
90. 16 U.S.C § 1536(j).
91. Id. § 1536(b)(1)(b).
Unlike its treatment of NEPA, the judiciary has not allowed military exemptions to the ESA through its jurisprudence. In contrast, the judiciary has served as an enforcing agent of this legislation. In *Tennessee Valley Authority v. Hill*, the U.S. Supreme Court held that “[t]he plain intent of Congress in enacting this statute was to halt and reverse the trend toward species extinction, whatever the cost” and that the legislative intent behind the section “reveals an explicit congressional decision to require agencies to afford first priority to the declared national policy of saving endangered species.” The Supreme Court indicated that this clear legislative intent takes precedence over the traditional discretion of the judiciary in issuing injunctions. Because of this confining interpretation of the ESA, the courts have prevented the military from evading the procedural mandates of the ESA and NEPA by issuing preliminary injunctions until compliance is met. The military has also moved further in incorporating the aims of the ESA into its culture, including training exercises. However, the courts have still found it necessary at times to use injunctions and court mandated deadlines to “cajole[]” the military to comply with the procedures mandated by statute.

3. Marine Mammal Protection Act

Because marine mammals are “resources of great international significance,” Congress enacted the MMPA “to maintain the health and stability of the marine ecosystem.” The Act’s primary purpose was to prevent commercial whaling, but the MMPA affects any basis, there are no regulations that elaborate on it, and little information is available as to how it might apply in practice.”; see Dycus, supra note 19, at 31; see also Water Keeper Alliance v. United States Dep’t of Def., 271 F.3d 21, 34-35 n.10 (1st Cir. 2001) (stating that the court will not address the national security exemption to the ESA); Natural Res. Def. Council v. Evans, 279 F. Supp. 2d 1129, 1188-91 (N.D. Cal. 2003); Strahan v. Linnon, 967 F. Supp. 581, 619 (D. Mass. 1997).

94. Id. at 185.
95. Id. at 193-95. But see Weinberger v. Romero-Barcelo, 456 U.S. 305 (1982) for an illustration of the way the Court ruled when the legislative intent was not so adamant. An injunction was denied despite violation of environmental legislation. Id. at 306-07.
96. See Romero-Barcelo v. Brown, 643 F.2d 835, 857-58 (1st Cir. 1981) (stating that the Navy sidestepped the administrative process by ignoring the statutory mandate to conduct a biological opinion, but reversed on other grounds); Strahan v. Linnon, No. 94-11128, 1995 U.S. Dist. LEXIS 21512 (D. Mass. May 19, 1995) (attached as Appendix II to Strahan, 967 F. Supp. at 609-32) (issuing an injunction directing the Coast Guard to fulfill the procedural requirements of the ESA).
98. See Strahan, 967 F. Supp. at 608.
human activity that puts marine mammals in danger. The MMPA prohibits, with certain exemptions, the taking of marine mammals.\textsuperscript{100} The Secretary of Commerce may authorize the incidental taking of small numbers of marine mammals by harassment within a specified geographic region if he finds that the harassment will have a negligible impact on the species or stock.\textsuperscript{101} If the Secretary does grant such an exemption, the authorization will also prescribe the permissible methods of taking, the necessary mitigating measures, and the monitoring requirements.\textsuperscript{102}

There were no blanket military exemptions to the MMPA prior to the enactment of the National Defense Authorization Act.\textsuperscript{103} The military could receive authorization to harass a marine mammal within 120 days if there was going to be a negligible impact on the species and the action would not have an unmitigable adverse impact on the species.\textsuperscript{104} This exception can be extended.\textsuperscript{105} Furthermore, under the Armed Forces Code, the Pentagon can obtain accommodations to meet the needs of military readiness and can appeal adverse decisions directly to the President; however, not one of the Pentagon's requests for authorization under the law has ever been denied.\textsuperscript{106}

\section*{C. Possible Frameworks for Assessing the Validity of Military Environmental Action}

While environmental laws offer concrete and practical methods of negotiating the relationship between national security and the environment, it is important to examine the frameworks that the government uses or could use to evaluate government action and legislation. It is equally important to analyze the underlying principles

\begin{thebibliography}{99}
\bibitem{100} \textit{Id.} \S 1371(a)(3)(A); Natural Res. Def. Council v. Evans, 279 F. Supp. 2d 1129, 1141 (N.D. Cal. 2003).
\bibitem{101} 16 U.S.C. \S 1371(a)(5)(A); \textit{Evans}, 279 F. Supp. 2d at 1142 ("[T]o receive a 'small take' authorization, an activity must: (i) be limited to a 'specified geographic region,' (ii) result in the incidental take of only 'small numbers of marine mammals of a species or population stock,' and (iii) have no more than a 'negligible impact' on species and stocks."). Harassment is defined as any act of pursuit, torment, or annoyance which – (i) has the potential to injure a marine mammal or marine mammal stock in the wild; or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering.
\bibitem{102} 16 U.S.C. \S 1362(18)(A).
\bibitem{103} 16 U.S.C. \S 1371(a)(5)(B).
\bibitem{105} \textit{Id.}
\bibitem{106} \textit{Id.}
\end{thebibliography}
and objectives and how the government incorporates these foundational principles in such action and legislation. Examining these frameworks allows for a deeper understanding of whether these laws or actions should adapt to new and unforeseen circumstances, and if so, how these laws or actions should change.

As a preliminary matter, it is important to note that many environmental laws are adopted as a result of highly public environmental disasters. Because the motivation and foundational principles behind this type of legislation are a culmination of a visceral public outcry and reactionary political response, the framework for adopting legislation in this traditional manner is not necessarily analytical.

1. Cost-Benefit Analysis

The cost-benefit approach to evaluating political and agency decisions has been gaining more support throughout the government over the past few years. In the environmental setting, a cost-benefit analysis sets "an economic standard for measuring the success of the government's projects and programs." It "sets out to do for government what the market does for business: add up the benefits of a public policy and compare them to the costs." See Nicholas J. Johnson, Regulatory Takings and Environmental Regulatory Evolution: Toward a Macro Perspective, 6 Fordham Envtl. L.J. 557, 558 (1995) ("[M]odern environmental regulation, as characterized principally by the foundational federal statutes enacted since 1970, covering air, water, and the landbase, emerged and grew in an atmosphere of emergency."); see also Jay Schoenfarber, Comment, Capitalizing on Environmental Disasters: Efficient Utilization of Green Capital, 9 Tul. Envtl. L.J. 147, 150 n.9 (1995) (positing that "[t]he enactment of CERCLA [Comprehensive Environmental Response, Compensation and Liability Act] legislation, the Clean Air Act, and the Clean Water Act can also be largely attributed to environmental disasters").

108. See Eric A. Posner, Controlling Agencies with Cost-Benefit Analysis: A Positive Political Theory Perspective, 68 U. Chi. L. Rev. 1137, 1139 (2001). Posner points to the Clinton administration's "endorsement of a cost-benefit analysis in a slightly modified form" while the current Bush administration planned to "strengthen cost-benefit oversight. . . . Bills requiring agencies to use a cost-benefit analysis have been routinely proposed in Congress since 1995," and many bills are interpreted to allow it. Id. (citations omitted). Posner also discusses recent circuit court decisions that "reflect a trend toward greater recognition of cost-benefit analysis among the [judiciary] as an appropriate and possibly even necessary part of the regulatory process." Id. at 1138; see also Robert V. Percival, Separation of Powers, the Presidency and the Environment, 21 J. Land Resources & Envtl. L. 25, 42 (2001) ("Despite vigorous opposition from EPA and the Clinton administration, in March 1995, the House of Representatives approved legislation that would require all major regulatory decisions to be justified on the basis of cost-benefit analyses . . . ."); Laurence H. Tribe, Constitutional Calculus: Equal Justice or Economic Efficiency?, 98 Harv. L. Rev. 592, 601-02 (1985) (discussing several Supreme Court cases that utilized a cost-benefit analysis).


110. Id. at 1557.
Essentially, a cost-benefit analysis looks at the cost of the proposed action, i.e., the aspects of the action that detract from an overall social desire, and compares that cost to the benefits of a proposed action, i.e., the aspects of the action that meet social desires.\textsuperscript{111} In order to reduce these costs and benefits to numbers, economists use a variety of different valuation methods.\textsuperscript{112} Once the valuation methods have determined a numeric value for the commodity, the cost or benefit is discounted if the effects will be felt by society in the future.\textsuperscript{113} The analysis from this point is simple: If the action produces a net social gain, it should be pursued, and if the action produces a net social loss, it should not.

2. Constitutive Law Approach

A constitutive framework "calls for society to choose actions consistent with societal values," taking into account what decisions reflect about current social values as well as what types of values the decisions will create in society.\textsuperscript{114} A constitutive framework for evaluating law and governmental action does not make choices easy.\textsuperscript{115} This is particularly true when two values that society treasures are in conflict.\textsuperscript{116} A constitutive approach requires society not only to ask which of the two conflicting values society prefers, but also "which [value] is more strongly implicated by the choice."\textsuperscript{117} These questions determine what values society expresses through the choice and what type of society that choice will form.\textsuperscript{118} While the analysis and choices made through this approach cannot and will not be "objective" or "scientific, . . . [society] can reduce the potential for decisionmakers to indulge their individual biases by ventilating the decisions in public, requiring (and facilitating) constitutive explanations, and involving groups representing all sides of the value debate in the decisionmaking process."\textsuperscript{119}

The constitutive approach recognizes that law shapes the essential qualities of individuals, groups, and communities.\textsuperscript{120} Law shapes technology through the encouragement or discouragement of the development of new technologies through regulations, subsidies, or

\begin{itemize}
  \item \textsuperscript{111} Id.
  \item \textsuperscript{112} See R. Kerry Turner et al., Environmental Economics: An Elementary Introduction 114-27 (1993) for an overview of various types of valuation models.
  \item \textsuperscript{113} Ackerman & Heinzerling, supra note 109, at 1559-60.
  \item \textsuperscript{114} Holly Doremus, Constitutive Law and Environmental Policy, 22 Stan. Envtl. L.J. 295, 318 (2003).
  \item \textsuperscript{115} Id. at 339.
  \item \textsuperscript{116} Id.
  \item \textsuperscript{117} Id.
  \item \textsuperscript{118} Id.
  \item \textsuperscript{119} Id.
  \item \textsuperscript{120} Id. at 300.
\end{itemize}
Law forms public institutions, such as the Council on Environmental Quality, and determines what principles and values motivate public actions, such as the consideration of environmental effects in federal decisions. Law shapes individuals and communities through the opportunities and standards it provides. Law constrains the ways people relate to each other and to their environment. Most importantly, law shapes values by communicating society’s endorsement of particular values and reinforcing those values in the present generation. Recognizing that the law has such an enormous effect on many varied aspects of society, a constitutive approach asks “whether the law, not only as written but also as actually implemented, adequately expresses [society’s] consciously adopted values and attitudes.”

To implement a constitutive framework into the government’s decision-making process, decision makers must: (1) articulate core principles; (2) focus on the future world the law will create and the impact that the future will have on the core principles; (3) design for the long term; and (4) provide sufficient flexibility to respond to new information or changed conditions. The articulation of core principles is important to a constitutive approach because it allows decision makers to pursue a broad objective. Therefore, the consistent values and principles will guide decisions even when unforeseen circumstances arise. Focusing on the future that current policies create is important to the consistency and stability of the law and the principles upon which the law is founded. Decision makers need to evaluate whether the current policy facilitates or undermines the core principles articulated by society. Constitutive law also requires that decision makers plan for the long term. If social values

121. Id. at 302-03. The law may also affect the development of technology “less directly as a result of the effects of regulatory schemes on incentives to innovate.” Id. at 302.
122. Id. at 304.
123. Id. at 305. For example, the public school system provides at least the minimum training that society deems children need in order to develop into productive members of society. Id.
124. Id. at 305-06.
125. Id. at 307.
126. Id. at 343.
127. Id. at 360-78.
128. See id. at 360.
129. Id.
130. See id. at 367. Planning for the future may also include integrating the precautionary principle. See infra Part III.A.2. The precautionary principle provides that “when an activity raises potential threats to the environment or human health, precautionary measures should be taken even if there is scientific uncertainty about those impacts.” Clifford Rechtschaffen, Advancing Environmental Justice Norms, 37 U.C. Davis L. Rev. 95, 112 (2003).
131. Doremus, supra note 114, at 367.
132. Id. at 375.
are strongly embedded in the law, "[it] assures that short-term political passions do not distract society from the core principles that the Constitution embodies."\textsuperscript{133} However, the law must also provide sufficient flexibility to permit it to respond to new information and changed conditions.\textsuperscript{134}

It is especially important to look at the underlying policies that influence federal legislation and federal action when society faces unanticipated circumstances and heightened social anxiety. At these times, society needs a means to evaluate government decisions quickly and responsibly, resisting the urge to react impulsively to the most recent problem, disaster, or tragedy.

D. The Political and Popular Landscape of the Battle over Military Sonar Testing

The tragic events of September 11, 2001 drastically changed the way that the country viewed the importance of national security. Focus shifted to fighting the war on terrorism, and many other domestic issues, including environmental concerns, became a lesser priority in the minds of the American populace, the judiciary, and the legislature.\textsuperscript{135} It is against this backdrop that the Department of Defense proposed the Readiness and Range Preservation Initiative, a bill that would exempt the military from compliance with the major federal environmental laws.\textsuperscript{136} The military had been heatedly advocating for these exemptions in the months prior to the tragic events of September 11, 2001.\textsuperscript{137}

1. The Department of Defense and Environmental Compliance

In 1989, after the conviction of three Department of Defense ("DOD") officials for illegal waste storage and disposal,\textsuperscript{138} the military was under tremendous pressure to comply with federal environmental

\textsuperscript{133} \textit{Id.}
\textsuperscript{134} \textit{Id.} at 375-76.
\textsuperscript{137} See Bethurem, \textit{supra} note 81, at 117-23.
\textsuperscript{138} United States v. Dee, 912 F.2d 741 (4th Cir. 1990); see Bethurem, \textit{supra} note 81, at 114.
laws. Secretary of Defense Dick Cheney issued a memorandum, declaring that "the Department of Defense [will] be the Federal leader in agency compliance and protection. We must demonstrate commitment with accountability for responding to the Nation's environmental agenda." In response, the DOD made many improvements in environmental stewardship, focusing many of its resources on clean-ups from past environmental disasters, but also beginning to integrate environmental planning into its training programs.

Despite improvement in the DOD's approach to the environment, tension still existed between the military's goals for military preparedness and the internal and external monitoring and enforcement imposed on the military by environmental laws. In the spring of 2001, the DOD brought concerns about the "encroachment" on military training activities by mandatory compliance with environmental laws to the legislature. The Government Affairs Committee in the United States House of Representatives held hearings on May 9, 2001. DOD representatives testified to the difficulties and limitations imposed by compliance and advocated for government reforms.

139. See Bethurem, supra, note 81, at 114 (alteration in original) (quoting Seth Shulman, Operation Restore Earth, Environment, Mar./Apr. 1993, at 38).
140. Bethurem, supra note 81, at 115.
141. See Dycus, supra note 19, at 2-4; Bethurem, supra note 81, at 116-17. See generally Montalvo, supra note 97.
142. See Montalvo, supra note 97, at 219-20 (describing the Army's training policies as they relate to encroachment upon the nest of a Red-Cockaded Woodpecker, which would halt training in an instant). Montalvo criticizes placing environmental enforcement in the hands of citizens and special interest groups and suggests alternative dispute resolution as the proper forum to address compliance concerns and to develop new proactive approaches to unique environmental problems. Id. at 221-50.
143. Bethurem, supra note 81, at 120.
144. Id. at 120-21. Representative Dan Burton, Chairman of the House Committee on Government Reform, began the hearings by describing the complexity of the "encroachment" issue:

Some Defense Department land has become a haven for endangered species, a habitat of last resort. The burden of protecting wildlife and habitat may be overwhelming the primary training mission.... The term encroachment is used because these developments gradually operate to crowd out the large scale, realistic training indispensable to force readiness.

Id.
145. Id. at 120-22. General Jumper, Commander, Air Combat Command, U.S. Air Force, testified that Air Force lands are often the last refuge in the region that can support endangered species, and that "many units are routinely denied the full range of airspace required for practicing modern tactics, causing an impact to readiness." Id. at 121. Army Lieutenant General Larry Ellis testified that "readiness is critical to [the] ability to perform... missions assigned and to do so efficiently and with minimum casualties...", and that the net effect of encroachment concerns was to restrict training on tens of thousands of acres. Id. at 122. After the hearings, the Government Affairs Committee sent President Bush a letter summarizing eight months of field investigation and the hearing testimony, concluding that "the issue is
In the same time period, Representatives Filner, McKinney, Pelosi, Degette, and Lewis introduced a bill in the House entitled the Military Environmental Responsibility Act ("MERA"). The purpose of this bill was "to require the Department of Defense and all other defense-related agencies of the United States to fully comply with Federal and State environmental laws..." The bill proposed "to entirely waive any and all sovereign immunity and to entirely revoke any and all exemptions of the Department of Defense... that might in any way limit or exempt those agencies from complying..." It also sought to clarify any ambiguity "for the executive or judicial branches that the Department of Defense... [is] fully subject to all the requirements and possible enforcement of all Federal and State environmental laws designed to protect the health and safety of the public or the environment." Had it passed, MERA would have "eliminate[d] all the defense and national security exceptions and exemptions from all environmental laws, and make the DoD accountable for environmental compliance on the exact same basis as any private citizen or corporation."

2. September 11, 2001: The Shift in Priorities

a. Popular Support for Military Action

Many of the most instrumental environmental laws require the involvement of the civilian community to enforce military compliance through comment on publicly issued statements or through litigation when those statements are either absent or inadequate. The increased sense of patriotism and unified support for the military following September 11, 2001 created a chilling effect on the effectiveness of this public participation.

One example of the paradigm shift caused by the events of September 11, 2001 is the change in position of the citizen community in the Malama Makua litigation in Hawaii. In 1943, the Army began using the Makua Military Reservation ("MMR"), located approximately thirty-eight miles from Honolulu on the western shore...
of Oahu, "as a training area for troops from the Army, other branches of the military, and foreign nations."\textsuperscript{152} Between 1988 and 1998, the Army used the MMR for live fire and combined arms maneuver training.\textsuperscript{153} In September 1998, military training at MMR ceased due to several wildland fires caused by munitions that fell outside of the designated impact areas.\textsuperscript{154}

The training range at Makua "contains a significant Native Hawaiian religious site, numerous secret burial caves and extensive habitation areas..."\textsuperscript{155} The western shore of Oahu is inhabited primarily by native Hawaiians who use the ocean for subsistence fishing and gathering.\textsuperscript{156} Endangered marine mammals frequent the shore, and the ridges above the training facility "contain numerous species of threatened and endangered flora and fauna."\textsuperscript{157} In addition to concerns about the effect of military training activities, which included live-fire training exercises, in the native wildlife and flora and fauna in the region, the community also opposed the use of the Makua Valley for military training due to concerns about contamination\textsuperscript{158} and safety concerns relating to munitions.\textsuperscript{159}

"After years of protests, community activism, and Congressional inquiries,"\textsuperscript{160} on October 4, 2001 an agreement was reached allowing the Army to conduct training at the MMR.\textsuperscript{161} A member of the Malama Makua board stated that "[w]hile we don't believe that any military training at Makua is appropriate, we understand the Army's desire to make sure its soldiers are prepared to defend themselves."\textsuperscript{162} He also stated that "[t]he world changed on the 11th of September. It

\textsuperscript{153} Id.
\textsuperscript{154} Id.
\textsuperscript{155} Bethurem, supra note 81, at 128.
\textsuperscript{156} Id.
\textsuperscript{157} Id. "More than 40 endangered plants and animals are found in the valley."
\textsuperscript{158} Bethurem, supra note 81, at 128. The military used the site "in the past for open burning and open detonation of waste ammunition and hazardous materials and waste ...." Id.
\textsuperscript{159} Id. Troops and munitions must pass through the middle of town, alongside elementary and high schools, in order to get to the training base. Id.
\textsuperscript{160} Id.; Cole, supra note 157. The agreement also ensured monitoring, access to cultural sites, and limitations on the amount of training activities conducted. See Bethurem, supra note 81, at 129; see also U.S. Army Envl. Ctr., Environmentalists Agree to Army Training in Makua Valley, Hawaii, Range Complex, at http://aec.army.mil/usace/publicaffairs/update/win02/win0201.html (last visited Feb. 21, 2004).
\textsuperscript{161} Cole, supra note 157. The Malama Makua Board and other concerned citizens had good reason to fear for the safety of the community and the adverse environmental effects of the training exercises. On July 22, 2003, a "controlled burn" by the Army got out of control and burned half of the valley, destroying at least seventy-one endangered plants and 150 acres of critical habitat. Id.
changed a lot of things. That clouded the issue. ‘Where do our loyalties lie?’ people were asking. It was hard to separate Makua from what had happened on Sept. 11.”

b. The Political Battle

The ideological shift in the country after September 11, 2001 not only affected the public’s willingness to challenge the need for military compliance; it also affected the debate in Congress over whether to enforce further military compliance with environmental laws. Instead of heightening enforcement of environmental statutes against the military, as had been proposed under MERA, after September 11, 2001, Congress decided to grant the DOD discretion in its compliance with environmental laws.164

On October 5, 2001, “numerous members of the House of Representatives wrote to Secretary of Defense Rumsfeld... [concerned with the] ‘challenge of encroachment upon our military bases, test ranges, and training facilities, and the negative effect this has had on combat readiness, effectiveness, and safety.’”165 The letter also referred to “examples... where training effectiveness and reality have been sacrificed to... misguided litigation and ‘feel good’ environmentalism without a shred of science to support the decision.”166 The new atmosphere in Congress in the wake of September 11, 2001 gave the DOD the room it needed to push for the broad exemptions from environmental regulations that it had been fighting for long before the tragic events of September 11, 2001. Against this backdrop, an environmental coalition led by the Natural Resources Defense Council brought action against the Navy for its testing of low-frequency active sonar.167 This case illustrates how legislation, prior to the exemptions granted in November 2003, provided an external check on the military's use of sonar and eventually led to a balance between the national security and environmental concerns implicated by this use.


164. See infra Part I.F.

165. Bethurem, supra note 81, at 129 (quoting Letter from the House of Representatives, to Donald H. Rumsfeld, Secretary of Defense (Oct. 5, 2001) (on file with author)). “The letter ends with the pledge of ‘continued support to [Secretary Rumsfeld’s] efforts to rebuild our military, restore our national confidence and win the war against the scourge of global terrorism.’” Id. at 130.

166. Id. at 129-30.

167. See infra Part I.E.
E. Natural Resources Defense Council v. Evans

In *Evans*, the Natural Resources Defense Council ("NRDC") brought suit against the National Marine Fisheries Service ("NMFS") and the Navy, seeking a permanent injunction against "federal officials to prevent the United States Navy's peacetime use of a low-frequency sonar system for training, testing, and routine operations." The NRDC sought relief based on violations of the NEPA, the ESA, and the MMPA. This case provides an illustration of how the environmental legislation in place before the enactment of the National Defense Authorization Act provided a necessary check on military actions affecting the environment, and how these environmental laws helped the district court achieve a balance between national security and environmental concerns.

In July 2002, despite strong concerns from many leading scientists, the NMFS issued a long-sought permit allowing the Navy to use the biggest gun in its active sonar arsenal, the SURTASS LFA sonar system, in as much as seventy-five percent of the world's oceans. The SURTASS LFA sonar system produces powerful waves of energy that can spread hundreds of square miles of ocean. The use of this system worldwide could harm many thousands of marine mammals, including significant numbers of species such as blue whales, humpback whales, and sperm whales, which are already considered endangered. The NRDC-led coalition of environmental and animal-welfare groups brought suit in the U.S. District Court for the Northern District of California to limit the use of this powerful sonar during peacetime, and to ensure that all of the safeguards provided by NEPA, the ESA, and the MMPA were followed by the NMFS and the Navy.

In *Evans*, the plaintiffs brought suit based on NEPA violations because the EIS prepared by the Navy was inadequate. In its reasonable alternatives analysis, the Navy set out three possible alternatives: (1) no action, (2) the proposed action (LFA sonar testing) without mitigation and monitoring, and (3) the Navy's preferred alternative. Because excluding mitigation and monitoring

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169. Id. at 1137.
170. Id. at 1137-38.
171. Protecting Whales, supra note 2.
172. Id.
173. Id. "Naval sonar has been shown to alter the singing of humpback whales, an activity essential to the reproduction of this endangered species; to disrupt the feeding of orcas; and to cause porpoises and other species to leap from the water, or panic and flee." Id.
174. Id.
175. Evans, 279 F.Supp. 2d at 1164.
176. Id.
from the implementation of the action is illegal,\footnote{Id.} the options were either the implementation of sonar testing exactly as the Navy proposed or no action at all. Therefore, there were no reasonable alternatives given, as mandated by NEPA.\footnote{See id. at 1166.} The Navy also failed to disclose or include relevant studies of the harmful effects of sonar on fish.\footnote{Id. at 1167.} The Navy used one favorable report, alleging that it was “the only relevant study.”\footnote{Id.} In fact, the Navy was aware of an unpublished report commissioned by Great Britain’s Defense Research Agency in 1994, which addressed the effect of low-frequency sonar on fish,\footnote{Id.} and failed to inform their own expert about this research.\footnote{Id. at 1167-68.} The court held that the Navy arbitrarily and capriciously violated NEPA by failing to address reasonable alternatives and by failing to include relevant studies in its analysis of the effect of the proposed action on the environment.\footnote{Id. at 1171.}

Under the mandates of the ESA, the Navy was required to provide the NMFS with the “best available science” regarding the impact of LFA sonar on marine life.\footnote{Id. at 1168.} The Navy violated this requirement by failing to disclose the Defense Research Agency study to the NMFS.\footnote{Id. at 1180.} The Navy was also required to prepare an Incidental Take Statement as part of its biological assessment.\footnote{Id. at 1181.} It failed to include either a specific number or “some surrogate for defining the amount or the extent of incidental take.”\footnote{Id. at 1184.} The Navy argued that “[b]ecause of the geographic scope and scale of this programmatic biological opinion,”\footnote{Id. at 1183.} it could not estimate the amount or extent due to the variance of the effect of the SURTASS LFA system “from ocean to ocean, the particular region of an ocean, and timing.”\footnote{Id.} However, it offered no evidence that it was impractical to obtain estimates of the incidental take for some twenty endangered species that would be

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\item \footnote{Id. at 1167.} The British Agency report included the results of experiments conducted “by exposing a variety of caged fish to short bursts of low frequency tones . . . .” \textit{Id.} The exposed fish “suffered internal injuries at 160 dB, eye damage at 170 dB, auditory damage at 180 dB, and transient stunning at 190 dB.” \textit{Id.} In contrast, the Navy’s experts proffered the opinion that no auditory damage could occur from low-frequency noise. \textit{Id.}.
\item \footnote{Id. at 1167-68.} The Navy later asked its own consulting expert to comment on the British study. \textit{Id. at 1168.} While the expert disagreed with the methodology, he stated that “the results reported . . . are too damaging to ignore.” \textit{Id.} He suggested computer modeling to conduct further research. \textit{Id.} However, the Navy did not act on these recommendations. \textit{Id.}
\end{enumerate}
affected. The Navy offered as its surrogate that an animal taken within two kilometers of the exercise would act as a trigger for purposes of the ITS. This test does not adequately address the problem because if a taking occurs, the question becomes where the taking took place, not whether LFA caused the injury. Based on these inadequacies, the district court ruled that the Navy arbitrarily and capriciously violated the mandates of the ESA.

The court found that the Navy failed to comply with the MMPA in its proposal for LFA sonar testing because it did not give the necessary information to qualify for an incidental takings permit. Because the Navy would be testing the SURTASS LFA sonar in up to seventy-five percent of the world's oceans, it had difficulty dividing the areas where it would be testing so that the effects on marine mammals in the region would be substantially the same. The final permit issued by the NMFS had "no limitation on how many provinces may be involved" in LFA testing "in any given deployment." The Navy also used a definition of "small numbers" that employed the same standard as that of negligible impact. By

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190. Id. at 1184.
191. Id. at 1185-87.
192. Id. at 1187.
193. See id. at 1187-88.
194. Id. at 1141-64. "The MMPA generally prohibits the taking of marine mammals, with certain statutory exceptions." Id. at 1141. The Secretary may issue a "small takings" permit for a maximum of five consecutive years if the activity will have a negligible impact on such species or population stock. Id.

To receive a 'small take' authorization, an activity must: (i) be limited to a 'specified geographical region,' (ii) result in the incidental take of only 'small numbers of marine mammals of a species or population stock,' and (iii) have no more than a 'negligible impact' on species and stocks. In addition, . . . the Secretary must: (iv) provide for the monitoring and reporting of such takings, and (v) prescribe methods and means of effecting the 'least practicable adverse impact' on species and stock and their habitat.

Id. at 1142.

195. See id. at 1145-46. The divisions for testing had to have similar effects on marine mammals in order to satisfy the intent of Congress. See H.R. Rep No. 97-228, at 19 (1981), reprinted in 1981 U.S.C.C.A.N. 1458, 1469-70. The court agreed with the plaintiffs that the effects of an activity on marine mammals cannot be substantially the same throughout a specified geographic region unless the distribution of marine mammals in that region is relatively uniform. For example, if LFA is deployed in a sparsely populated area, the effects are unlikely to be substantially the same as they would be if it were deployed in an area that contained marine mammal breeding grounds.

Evans, 279 F. Supp. 2d at 1145.

196. Id. at 1145-46. While the Navy argued that in practice it was required to notify the NMFS of where it would be deploying and how many takings it expected, there was nothing to prevent the Navy from deploying the sonar in all approved regions in one year. Id. at 1146.

197. Id. at 1151-53. The defendants argued "that any other definition would contradict Congress' pronouncement in the legislative history that 'small numbers' is not a concept that can be 'expressed in absolute numerical limits.'" Id. at 1152-53
doing so, the Navy proposed that it could take as much as twelve percent of a population of a species and still only take a small number of animals.\textsuperscript{198}  

The NMFS also acted arbitrarily and capriciously by authorizing a permit despite the Navy's inadequate mitigation and monitoring techniques for the deployment of LFA.\textsuperscript{199}  The detection employed by the Navy would only pick up large animals, and the Navy chose not to supplement this system with the use of aerial or small craft surveys.\textsuperscript{200}  The NMFS did not exclude testing in certain areas or seasons that are particularly sensitive to marine mammals, nor did it exclude coastal areas from the permissible testing areas, even where close shore testing was unnecessary and particularly harmful.\textsuperscript{201}  The district court held that these acts were arbitrary and capricious and in violation of the MMPA.\textsuperscript{202}  

Finding violations of all three environmental laws, the court invalidated the Navy's permit, announced its intention to issue a permanent injunction,\textsuperscript{203}  and directed the Navy and plaintiffs to negotiate a limited area where the Navy could test and train with the system while the permanent injunction is in effect.\textsuperscript{204}  Ultimately, the NRDC and the Navy worked out a settlement agreement that provided for the Navy to restrict its use of the system to a defined and limited area of the western North Pacific Ocean and to observe year-round, seasonal, and coastal exclusions to protect migratory species and sensitive coastal ecosystems within that limited area.\textsuperscript{205}  

The facts and findings in Evans provide a prime example of why the military should be forced to comply with environmental legislation. Because of the military's important duties and justifiable focus on national defense, equally important environmental issues may be overlooked in major military decisions. But if compliance with all components of federal environmental legislation is mandatory, concerned citizens can help provide a necessary check on the military's discretion through the judicial process. The balancing process had been a cumulative result of legislation that granted

\footnotesize{(quoting H.R. Rep No. 97-228, at 19). The Court stated that it "does not require defendants to set an absolute numerical limit," but that the "defendants' current definition, which completely eliminates the separate requirements that only a 'small number' of marine mammals be taken, is arbitrary, capricious, and manifestly contrary to the statute . . . ." Id. at 1153.  
198. Id. at 1152.  
199. Id. at 1163-64.  
200. Id. at 1160-61.  
201. See id. at 1161-64. The NMFS failed to designate these areas as Offshore Biologically Important Areas ("OBIAs"), despite the recommendation of its own experts to do so. Id. at 1162.  
202. Id. at 1164.  
203. Id. at 1188-92.  
204. Settlement Press Release, supra note 27.  
205. Id.)
citizens the right to challenge military action that drastically affected the environment, the participation of the public in the decision-making process and, if necessary, in subsequent litigation, and the enforcement presence of the judiciary. This process was changed after September 11, 2001, the war on terrorism, the war in Iraq, and the shift in public perception of the importance of national security.\(^\text{206}\)

F. The National Defense Authorization Act

In 2002, the DOD submitted an eight-provision legislative package, the Readiness and Range Preservation Initiative, to Congress. The purpose of these provisions was to “reaffirm the principle that military lands, marine areas, and airspace exist to ensure military preparedness, while also ensuring DOD remains fully committed to environmental stewardship of the lands under its care.”\(^\text{207}\) Congress enacted three of the provisions in 2002.\(^\text{208}\) In 2003, the DOD resubmitted the remaining five provisions to Congress. Those provisions proposed military exemptions to the ESA, the MMPA, the Clean Air Act, the Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA”), and the Resource Conservation and Recovery Act (“RCRA”).\(^\text{209}\) In November 2003, Congress adopted the provisions amending the ESA and the MMPA in the National Defense Authorization Act.\(^\text{210}\)

The National Defense Authorization Act amends the ESA to provide that military lands will not be designated as critical habitats if there is an Integrated Natural Resource Management Plan (“INRMP”) prepared under the Sikes Act,\(^\text{211}\) and if the Secretary of

\(^{206}\) See infra Part I.F.


\(^{208}\) Id. These provisions allowed the DOD “to cooperate more effectively with third parties on land transfers for conservation purpose[s]” and temporarily exempted the military “from the Migratory Bird Treaty Act for the unintentional taking of migratory birds during military readiness activities.” Id.

\(^{209}\) Id.


\(^{211}\) 16 U.S.C. § 670 (2000). The Sikes Act provides that the Secretary of each military department shall prepare and implement an integrated natural resources management plan for each military installation in the United States under the jurisdiction of the Secretary, unless the Secretary determines that the absence of significant natural resources on a particular installation makes preparation of such a plan inappropriate.

Id. § 670a(a)(1)(B). The Secretary must cooperate “with the Secretary of the Interior, acting through the Director of the United States Fish and Wildlife Service, and the head of each appropriate State fish and wildlife agency . . . .” Id. § 670(a)(2). Among other requirements, INRMPs must contain elements that offer protection to fish, wildlife, and their habitats, enhance or modify habitats, and establish specific resource management goals and objectives and time frames for proposed action. Id. §
the Interior determines that "such plan provides a benefit to the species for which critical habitat is proposed for designation."\textsuperscript{212} INRMPs are prepared "in cooperation with" the U.S. Fish and Wildlife Service ("FWS") and "reflect the mutual agreement of the parties [i.e., DOD, FWS, and the state] concerning conservation, protection, and management of fish and wildlife resources...."\textsuperscript{213} The DOD argues that INRMPs are prepared in full coordination with all interested stakeholders, including the general public.\textsuperscript{214} Unlike compliance with the ESA, however, under the INRMP and the Sikes Act, the DOD is not obligated to prepare an Environmental Assessment that would be open to comment by the public.\textsuperscript{215} The public also has no means by which to challenge the DOD's actions if it disagrees with the effect of the program on endangered and threatened species.\textsuperscript{216} In addition, the DOD "manages 25 million acres on more than 425 military installations , providing habitat for over 300 species listed as threatened or endangered."\textsuperscript{217} This provision essentially gives the executive branch the power to regulate its own actions affecting these twenty-five million acres containing over 300 endangered and threatened species on its own discretion without any external checks.

The National Defense Authorization Act also amends the MMPA to allow for broad flexibility as applied to the military. It amends the definition of harassment for military readiness activities to "any act that injures or has the significant potential to injure a marine mammal"\textsuperscript{218} as opposed to "any act... which – has the potential to injure... or has the potential to disturb a marine mammal."\textsuperscript{219} This reduces the standard to trigger a violation of the MMPA. It eliminates the requirements of taking only "small numbers" of marine mammals within a "specified geographic region" for purposes of military readiness activities.\textsuperscript{220} The law also allows an exemption to

\begin{footnotesize}
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\item\textsuperscript{670a(b)(1).} However, these required elements are included so long as they are "[c]onsistent with the use of military installations to ensure the preparedness of the Armed Forces... ." \textit{Id.} § 670(a)(3).
\item\textsuperscript{212.} § 318(a)(3)(B)(i), 117 Stat. at 1433. This law also amends the ESA to take into account national security concerns in the determination to designate land as a critical habitat. \textit{Id.} § 318(b), 117 Stat. at 1433.
\item\textsuperscript{214.} Fact Sheet, \textit{supra} note 213.
\item\textsuperscript{215.} See 16 U.S.C. § 670.
\item\textsuperscript{216.} See \textit{id.}
\item\textsuperscript{217.} Fact Sheet, \textit{supra} note 213.
\end{itemize}
\end{footnotesize}
the MMPA, if necessary for national defense, for up to two years, with additional exemptions for another two years if determined necessary by the Secretary of Defense after conferring with the Secretary of Commerce and the Secretary of the Interior. In addition, the determination of the "least practicable adverse impact on [a] species or stock" for mitigation and monitoring purposes includes a consideration of the "impact on the effectiveness of the military readiness activity." Hence, the standard is not based primarily on the safety of the marine mammal or the marine mammal population, but also on how those safety measures may impede training.

Each of these amendments directly addresses the basis for the district court’s issuance of a permanent injunction under the MMPA in *Evans*. The House Conference Report cites the case as the impetus for addressing the “deficiencies” in the MMPA that created difficulties for the Navy’s obtainment of an incidental takings permit. The Conference Report indicates that Congress intended this legislation to give the Navy more freedom to test LFA sonar, possibly limited only by the requirement to take only the amount of marine mammals that would constitute a negligible impact on the species. It also erects further obstacles to challenging the widespread military testing and use of mid-frequency, high-intensity sonar.

II. THE SONAR DEBATE ILLUSTRATES THE NEED FOR AN ENDURING FRAMEWORK TO BALANCE ENVIRONMENTAL SUSTAINABILITY AND NATIONAL SECURITY CONCERNS

Limitations on the testing of mid-frequency active sonar is an unresolved issue that is hotly debated by the military and environmental groups. Legislative amendments that grant military

221. § 319, 117 Stat. at 1392. “Unlike military exemptions written into other statutes, the ones [applied in] the MMPA are not triggered by war or national emergencies and are not conditioned on completion of an initial stage of environmental review, but could be applied to virtually any military activity or technology at any time.” Above the Law, *supra* note 103.


223. 279 F. Supp. 2d 1129, 1141-64 (N.D. Cal. 2003).


225. See id. In *Evans*, the Navy argued that actions that could potentially affect twelve percent of a particular species or population stock would not violate the negligible impact requirement. *Evans*, 279 F. Supp. 2d at 1158. However, the negligible impact requirement may not be a limitation if the Navy is granted an exemption for national defense. It is also important to note that the exemption is not for national security, but for national defense. This may or may not permit a less strict standard of interpretation. The standard for an exemption for national defense or national security is unclear as the DOD has never applied or been granted a national security exemption under the ESA or any other environmental law that contains such an exemption.

exemptions to environmental law take away many, though not all, of the tools that environmental coalitions have used in the past to encourage the military to incorporate principles of environmental sustainability into its training procedures. This type of legislation is an example of the traditional approach to environmental laws in that it immediately responds to what society or the legislature deems the most pressing issue at hand. In light of the uncertainty of the outcome of the mid-frequency sonar testing controversy, this legislation also illustrates a need for a framework that will provide a consistent and endurable means of evaluating environmental legislation taking into account the vital importance of countervailing principles such as national security.

This part first describes the current debate over the testing of mid-frequency active sonar. It examines the effect of the National Defense Authorization Act on this controversy. It then evaluates the values and flaws of the frameworks that the legislature uses or could use in adopting environmental legislation: (1) the traditional, response-based analysis of legislation, (2) a cost-benefit analysis, and (3) a constitutive law analysis.

A. The Effect of the National Defense Authorization Act on the Mid-Frequency Sonar Debate

Although the NRDC and other environmental groups successfully reached a compromise with the Navy regarding the testing of LFA sonar, no compromise has been reached regarding the testing and use of mid-frequency sonar by the military. While LFA sonar was particularly dangerous to ocean life due to its ability to travel farther underwater at loud decibel levels, mid-frequency sonar is the military technology associated with several mass strandings and deaths of whales in recent years. Mid-frequency sonar is already used widely by many nations. Most ships in the United States Navy are equipped with mid-frequency active sonar: “As of January 2004, 58% of the Navy’s 294 surface ships and submarines were equipped with at least one form of mid-frequency active sonar, and of the 161 ships and submarines planned or under construction, 93 are to be similarly equipped.”

In July 2004, a coalition of conservation and animal welfare groups, which included the NRDC, “threatened to sue the U.S. Navy over the use of mid-frequency sonar linked to mass whale strandings, internal

227. See supra notes 204-05 and accompanying text.
228. See supra notes 4, 6-8 and accompanying text.
229. See supra notes 4, 6-8 and accompanying text.
bleeding and death." The environmental coalition stated that the Navy's use of mid-frequency sonar violated the same laws at issue in Evans, "but on a much larger scale." The coalition sent a letter to the Navy Secretary Gordon England with the goals of: (1) "ensur[ing] that the Navy is testing, training with, or otherwise deploying this technology ... in a manner consistent with the requirements of the [applicable federal law]"; and (2) "stop[ping] the needless infliction of harm to marine mammals and other marine species that has repeatedly been associated with the Navy's use of such sonar without feasible, effective mitigation measures." The letter suggested possible mitigation and monitoring measures for the Navy to consider, including, among others, avoiding habitats of mammals that are known to be detrimentally affected by the use of sonar, conducting pre-operational surveys for marine mammals and endangered species and post-operational surveys for dead or injured animals, and reducing "the source level of the sonar signal to the maximum extent practicable." The coalition would prefer not to take this issue to litigation, but to discuss the matter "in a spirit of co-operation.

While the National Defense Authorization Act does not exempt the military from complying with many aspects of the MMPA and the ESA, it demonstrates a shift in the legislature's attitude towards military discretion in environmental actions. While the environmental coalition may have solid legal grounds to bring an action against the Navy for its use of mid-frequency sonar and its alleged violations of federal environmental laws, the National Defense Authorization Act creates doubt about how willing the Navy will be to negotiate an agreement that will balance the competing interests of national security and the environment as in Evans. If the case does proceed to litigation, the MMPA may offer little protection except to require authorizations and permits for the taking of marine mammals.

The military use of sonar and its deleterious effect on marine life is a clear example of how national security and environmental interests may at times, especially in times of war, be in direct conflict with one another. The historical and current approach to this problem is to elevate environmental issues and impose stricter restrictions in times

232. See supra Part I.E.
233. Whale Sonar Deaths, supra note 231.
234. Letter to Navy, supra note 7, at 1.
235. Id. at 11-12. The list included ten suggestions that the coalition believes "would result in real environmental benefits without detracting from military readiness." Id.
236. Whale Sonar Deaths, supra note 231 (internal quotations omitted).
237. See Letter to Navy, supra note 7, at 9, 11.
of relative peace or in response to environmental disasters and to place national security as a sole priority in times of war. This approach does not create a workable or sustainable environmental policy, specifically in the current international situation. Rather, a policy is needed that will help facilitate negotiation between the interests of national security and the environment, so that one is not necessarily prioritized to the absolute detriment of the other.

B. The Need for a Consistent and Sustainable Framework to Balance National Security and Environmental Concerns

Congress's support of the military's desire for environmental noncompliance has remained strong in the years since September 11, 2001, and has resulted in the enactment of virtually all of the DOD's environmental wishlist into law. This is not surprising, nor necessarily unmerited, given the ongoing threat of terrorism. However, the concerns about the effects of military action on the environment are not unmerited either. Because the principles on both sides of this controversy are so important and subsequent actions have the ability to bring about irreparable consequences, an integral step in analyzing how to balance national security and the environment is a consideration of the types of approaches that the government employs to govern how the two countervailing principles interact.

1. Response-Based Approach

Scholars posit that modern environmental regulation is a result of environmental emergencies that nurture "necessity-driven decision-making." This is seen in cases such as New York's willingness to change policy in the personal injury context in the wake of disasters. See, e.g., John O. Enright, Comment, New York's Post-September 11, 2001 Recognition of Same-Sex Relationships: A Victory Suggestive of Future Change, 72 Fordham L. Rev. 2823, 2876-79 (2004) (describing Congress's willingness to change policy in the personal injury context in the wake of disasters).


239. See Dycus, supra note 19, at 136-52. "When war begins, the environment, like truth, is usually one of the first casualties." Id. at 136.


Unlike Bush's predecessors—including his own father, who managed to balance the environment and military concerns—this Administration has sought strategic sacrifice of the environment. This move against the environment predates 9-11, but the energy industry base of the present Administration asserted its control over the President soon after the attacks. Id. Compare H.R. Conf. Rep. No. 108-354, at 668-69 (2003), reprinted in 2003 U.S.C.C.A.N. 1407, 1446-47, with Dep't of Def., Section-by-Section Analysis: Division A—Department of Defense Authorizations: Subtitle B—Environmental Provisions (on file with Fordham Law Review).
making.' The benefit of this approach is the chance to utilize "green capital," the opportunities that arise from environmental disasters, to effectuate change on a large scale. Because the public interest is engaged in environmental matters as a result of a disaster, it may be an impetus for instituting necessary legislation. It can affect change on a local level, addressing the response to emergencies and the formation of grassroot citizen groups. It can also affect change on a larger scale, promoting comprehensive agendas by national interest groups or pushing corporations to adopt more environmentally friendly policies.

One example of this phenomenon is the Love Canal disaster and the subsequent adoption of CERCLA. In 1953, the Hooker Chemical and Plastics Corporation transferred title to a sixteen-acre property to the Niagara Falls Board of Education. A school and one hundred homes were built on the site, where the corporation acknowledged that it had buried chemicals and covered them with a layer of clay. In 1978, after heavy rain storms, a thick chemical soup containing over eighty chemical compounds, including many known carcinogens, began leaking into residential basements. In response, Congress enacted CERCLA, which holds broad classes of parties strictly liable for "the costs of responding to the release [of a hazardous substance], or the substantial threat of a release of any hazardous substance."

The fundamental critique of a response-based approach to any problem, but especially issues that involve environmental matters, is that it does not adequately consider the long-term effects of the regulations, nor does it significantly engage the public for a sustainable period of time. This results in a pendulum swing in the opposite direction, which in the environmental context is termed "regulatory recoil."

Regulatory recoil can also be illustrated in the context of the CERCLA example. Professor Nicholas Johnson points out that the "discernable pruning" of the "regulatory organism" is exemplified by

241. See Johnson, supra note 107, at 558.
242. See Schoenfarber, supra note 107, at 147.
243. Id. at 152.
244. See id. at 153-58.
245. See id. at 158-65.
247. Id.
248. Id.
249. Id.
250. Id. at 226 (internal citation omitted).
251. See Schoenfarber, supra note 107, at 148-49.
252. See Percival et al., supra note 246, at 94-95 (describing the period from 1991 to the present as a period of "Regulatory Recoil and Reinvention," citing the weakening of the Clean Water Act and amendments to CERCLA).
the "apparent revival of divisibility under CERCLA,"\textsuperscript{253} and "EPA give-backs on early successes in the area of lender liability."\textsuperscript{254} It is also exemplified by the significant amendments to CERCLA, adopted unanimously by Congress in 2001 and signed into law by President George W. Bush in 2002, to encourage the redevelopment of brownfields.\textsuperscript{255}

To scholars, the most troubling issue that arises from response-based legislation followed by regulatory recoil is the inability to address the long-term goals of society. While the pendulum has historically swung powerfully in the direction of environmental protection\textsuperscript{256} the pendulum has recently shifted away from this approach\textsuperscript{257} and is swinging farther away as issues of national security enter the fray. Therefore, it is helpful to examine the utility of other analytical, evaluative frameworks that may give a more comprehensive approach to environmental policy.

2. Cost-Benefit Analysis

The most common framework the government utilizes for evaluating government action and legislation is cost-benefit analysis.\textsuperscript{258} Cost-benefit analysis is often cited as an ideal framework because it simplifies complex issues into numbers and then into dollars and cents, creating an ostensibly easy to understand and clear representation of the overall effect of any action.\textsuperscript{259}

Advocates of using cost-benefit analysis for public policy argue that it is the appropriate method because it produces "the most desirable results from the least resources"\textsuperscript{260} and it is more objective and transparent, creating a better system for public accountability.\textsuperscript{261} These advocates believe that "it goes beyond the idea of an individual's balancing of costs and benefits to society's balancing of costs and benefits."\textsuperscript{262} Scholars also argue that this analysis reduces the influence of interest groups on environmental regulations.\textsuperscript{263}

\textsuperscript{253} Johnson, supra note 107, at 559 (citing United States v. Alcan Aluminum Corp., 964 F.2d 252, 268-71 (3d Cir. 1992)).
\textsuperscript{254} Id. at 559-60 (citing the EPA's rulemaking broadening the lender liability exemption under CERCLA (citation omitted)).
\textsuperscript{255} Percival et al., supra note 246, at 95.
\textsuperscript{256} Id. at 94 (looking at the period of environmental regulation in the 1970s and 1980s).
\textsuperscript{257} Id. at 94-95.
\textsuperscript{258} See supra note 108 and accompanying text.
\textsuperscript{259} See Ackerman & Heinzerling, supra note 109, at 1553.
\textsuperscript{260} Id. at 1560.
\textsuperscript{261} Id. at 1562.
\textsuperscript{262} Turner et al., supra note 112, at 93.
\textsuperscript{263} Posner, supra note 108, at 1198.
Another benefit that advocates of the approach emphasize is the overall efficiency and legitimacy of a cost-benefit approach. Advocates argue that the analysis "furthers efficiency by ensuring that regulations are only adopted when benefits exceed costs and by helping direct regulators' attention to those problems for which regulatory intervention will yield the greatest net benefits." This is often used as the basis for critiques of environmental regulations that are attacked as being "insanely expensive, out of all proportion to their benefits—a problem that could be solved if proposed regulations were screened through cost-benefit analysis."

While the simplicity and clarity provided by the cost-benefit framework appear to hold the government and other major environmental actors to the highest degree of social scrutiny, critics argue that, upon closer examination, this system of analysis in the environmental arena is fundamentally flawed. One of the primary arguments that scholars raise as a major flaw in the cost-benefit analysis is the systemic trivialization of the future. In cost-benefit analysis, a common practice is to discount the future; the value routinely used to represent future benefits is the amount that one would put into a hypothetical savings account, earning interest, to obtain the value in the projected future. Therefore, the benefit of any policy that looks towards long-term goals will have a far less likely chance of surviving cost-benefit analysis, with diminishing probability.

264. Id. at 1199. Posner argues that the EPA benefits from utilizing a cost-benefit analysis "because otherwise principals should trust this agency less, and be unwilling to give it funds, jurisdiction, remedial power, and other needed resources. Accordingly, citizens and interest groups who want to strengthen the EPA ought to support cost-benefit analysis rather than criticize it." Id.

265. Ackerman & Heinzerling, supra note 109, at 1560.

266. Id.; see also Doremus, supra note 114, at 335-36 (discussing Daniel Farber's theory that it is impossible to separate ethics from economics).


268. Ackerman & Heinzerling, supra note 109, at 1559.
the further the plan for sustainability stretches into the future. In this light, critics argue that “discounting looks like a fancy justification for foisting our problems off onto the people who come after us.”

Justifications for discounting assume that environmental problems will not get any worse through present inaction and that remedies to current problems will be more efficient and less costly as technology improves, rendering current action at the current cost impractical. However, many environmental problems, such as global warming and the harmful effects sonar testing has on marine mammals, are unlikely to remain at their current state if no corrective action is taken. The years of inaction might make the problems more costly to address in the future, if they can be addressed at all.

Another criticism of cost-benefit analysis in the environmental arena is that it trivializes the future by inadequately taking into account “the possibility of catastrophic and irreversible events.” A typical cost-benefit analysis does not compute in its equations the possibilities of unusual or unpredictable catastrophic events such as nuclear explosions, oil spills, or radiation leaks. However, many of the greatest environmental disasters have arisen out of situations that would fall into the category of unusual or unpredictable catastrophic events, such as the nuclear reaction at Chernobyl or the Exxon-Valdez spill.

Many scholars also argue that cost-benefit analysis of environmental regulation is inherently unreliable because there is no credible method of evaluating the benefits. A popular form of determining the benefits is the Contingent Valuation Method (“CVM”), a form of opinion poll that asks an affected population how much they would be willing to pay to avoid environmental dangers or

269. Id.
270. Id. at 1571.
271. Id. at 1571-72.
272. Id. at 1571.
273. Id.
274. Id. at 1570.
275. Id. at 1572.
276. Tribe, Plastic Trees, supra note 267, at 65. Professor Laurence H. Tribe stated as follows:

[T]he tools of analysis are currently too blunt to be of very great use in this endeavor or in the discourse that surrounds it. If the analytic disciplines are truly to clarify the relations within and among values so as to identify otherwise unnoticed inconsistencies, and to show that some perceived conflicts are in fact illusory... then the analytic fields, and the scientific disciplines which support them, must sharpen both their capacity to ask and answer probing and imaginative “what if” questions, and their capacity to understand and describe in some detail what each of the nonmonetary values significantly involved in a choice really represents.

Id.
to protect natural resources.\textsuperscript{277} Under CVM, "[t]he most commonly applied approach is to interview households either at the site of an environmental asset, or at their homes, and ask them what they are willing to pay (WTP) towards the preservation of that asset."\textsuperscript{278} Critics argue that CVM has shortcomings inherent to its process that make it an impractical tool in evaluating consensus as it relates to government action.\textsuperscript{279}

Professor Laura Westra describes the shortcomings of CVM as three basic problems.\textsuperscript{280} First, the problems associated with lack of access to information are magnified by CVM because preferences are viewed as determinative.\textsuperscript{281} Other critics of the approach also find this issue troubling because people may tend "to understate what they would really pay in an attempt to reduce any subsequent actual payments," the "free-ride" problem.\textsuperscript{282} Second, there are practical problems faced by CVM practitioners such as "the need for a global perspective and the importance of the size and location of the sampled population."\textsuperscript{283} Environmental issues rarely affect only the immediate community where the proposed action (or inaction) is to occur. For example, local decisions affecting North American fisheries collectively contributed to the collapse of one fishery stock after another, thus creating global consequences.\textsuperscript{284} CVM does not adequately take into account the interests of those outside of the immediate community that have a stake in the decision that is being made.\textsuperscript{285} Third, the reality of worldwide environmental issues cannot be solved given the theoretical limitations of CVM.\textsuperscript{286} It is highly unlikely that the people most affected by environmental dangers are aware of the problem, or even if they are aware, that they are in a position to take action against the danger.\textsuperscript{287} CVM gives

\textsuperscript{277} Ackerman & Heinzerling, \textit{supra} note 109, at 1558; see also Turner et al., \textit{supra} note 112, at 122-27.
\textsuperscript{278} Turner et al., \textit{supra} note 112, at 122.
\textsuperscript{279} See Westra, \textit{supra} note 267, at 129-35. Westra also addresses three basic problems with CVM generally. \textit{Id.} "First, there are market power problems that occur in all modern democracies. These problems arguably doom CVM from the outset. Second, there are specific challenges faced by CVM practitioners working in the political context. Third, there are problems which cannot be addressed from within the theoretical framework of CVM." \textit{Id.} at 129.
\textsuperscript{280} \textit{Id.} at 129-32.
\textsuperscript{281} \textit{Id.} at 130.
\textsuperscript{282} Turner et al., \textit{supra} note 112, at 123.
\textsuperscript{283} Westra, \textit{supra} note 267, at 130.
\textsuperscript{284} \textit{Id.}
\textsuperscript{285} \textit{Id.}
\textsuperscript{286} \textit{Id.}
\textsuperscript{287} \textit{Id.} at 130-31. Westra discusses this problem in the context of the tragedy in Bhopal, India, following the siting of the Union Carbide facility. \textit{Id.} The plant told the local citizens that they were manufacturing medicine for plants when in reality they were producing toxic chemicals. \textit{Id.} The plant did not follow the safety guidelines it would have in its home country and did not make an effort to protect the workers or their families. \textit{Id.} at 131. The subsequent disastrous explosion killed
environmental decisions that disparately affect impoverished and uninformed communities a “spurious air of respectability and legitimacy” and lets businesses and governments escape moral accountability for their actions.\(^8\)

Most critics see the greatest limitation of cost-benefit analysis as its failure to take into account values, morality, and humanity by attempting to reduce the intangibles inherent to an environmental equation, such as life, health, and nature, into dollars and cents.\(^8\)\(^9\) Moreover, “[e]nvironmental problems are typically collective action problems that cannot be solved without the concerted action of a large number of persons.”\(^290\) By assessing society’s environmental values through an approach that turns “interconnected communities into atomized individuals,”\(^291\) the seemingly scientific result is in reality a distorted misconception.\(^292\)

Advocates of cost-benefit analysis argue that this method subjects the government to greater public accountability because the equation is both objective and easy to understand.\(^293\) Critics of this approach argue that the cost-benefit analysis is not wholly objective because the method “inevitably involves countless judgment calls.”\(^294\) Uncertainties arise from the limited amount of scientific knowledge available.\(^295\) Decisions must be made regarding what information to use, and the information will likely produce widely varying results dependant on the choice.\(^296\) These decisions may be and are often heavily influenced by advocates of one special interest group or another.\(^297\)

As Ackerman and Heinzerling note: “Cost-benefit

thousands. \(Id.\) Westra questions whether the result would have been different if the workers had been made aware of the potential danger, and answers that the community probably would not have rejected it. \(Id.\) She then focuses on what the moral approach in Bhopal should have been. \(Id.\)

288. \(Id.\) at 131-32.
289. See Tribe, Seven Deadly Sins, supra note 267, at 157 (discussing “the sin of devaluing process, of ignoring the independent value of respecting personal dignity and security in the means the government uses to achieve its ends”). See generally Gewirth, supra note 267.
291. Ackerman & Heinzerling, supra note 109, at 1567.
292. Ackerman and Heinzerling also point out that a cost-benefit analysis treats all economically equivalent risks as being equal in all respects. \(Id.\) at 1567-68. However, “[m]ost people view risks imposed by others, without an individual’s consent, as more worthy of government intervention than risks that an individual knowingly accepts.” \(Id.\) at 1568. A proper method of evaluation should take into account the contextual framework within which societal risk assumption is made. The current method of cost-benefit analysis does not do this. \(Id.\)
293. \(Id.\) at 1576.
294. \(Id.\)
295. \(Id.\)
296. \(Id.\)
297. \(Id.; see Meyer & Volk, supra note 240, at 106-11.\) Meyer and Volk criticize the manipulation of science and discuss how this manipulation parallels national security
analysis is a complex, resource-intensive, and expert-driven process.” Contrary to the argument of cost-benefit advocates, critics believe that “[f]ew members of the public can participate meaningfully in the debates about the use of particular regression analyses or discount rates which are central to the cost-benefit method.”

3. A Constitutive Law Approach

The constitutive framework takes into account that law alone cannot solve all environmental problems, and no law will be “effective unless it is reasonably aligned with societal values.” This is not to say that law is ineffectual at addressing environmental harms. Rather, this premise calls for a “more permanent and a more formative role for law,” a theory of law that reflects the long-term environmental goals of society. As Professor Holly Doremus views the situation: “Because every policy decision we make changes the world within which our values are formed, every decision changes, if only slightly, the likelihood that we and our successors will adopt and adhere to particular values.” Therefore, under this theory, law, as the preeminent means of shaping policy in our society, must reflect society’s goals, both present and future.

In describing this theoretical framework, Doremus uses the term constitutive to include “all the ways that law... shapes... the essential qualities of individuals, groups, and communities.”

Concerns and Problems:
This manipulation of science, and the information supporting it, is nothing new to Washington.... By denying the science underlying our environmental security—through the vitiation of the environmental assessment, impact, and enforcement process—we repeat the environmental parallel of the national security failure which produced the Second Resource War (that is, the Second Gulf War).

Id. at 111.

298. Ackerman & Heinzerling, supra note 109, at 1577.

299. Id. at 1577-78.

300. Doremus, supra note 290, at 235. The law cannot be the sole answer to environmental problems because the law is imperfect in its scope of addressing all environmental issues and its enforcement. Id. at 236.

301. Id. at 239. Law can serve to institutionally bridge the gap between abstract social values and specific actions. Doremus, supra note 114, at 373.

302. Doremus, supra note 114, at 340; see also Tribe, Plastic Trees, supra note 267, at 80. Tribe’s framework for decision making also reflects the importance of the process and the values implicated by that process:

The framework for choice to which I believe we should initially commit ourselves must have a double aspect. Although it must be selected in light of its likely consequences, it cannot be designed simply to assure that the journey will bring us to some preconceived destination.... The “way of acting” to which we commit ourselves must therefore be a process valued in large part for its intrinsic qualities rather than for its likely results alone.

Id.

303. Doremus, supra note 114, at 300.
The constitutive approach includes consideration of the means and the ends of environmental policy decisions, applying societal values to both sides of the equation. The choices made about policy “should be based . . . not solely or even primarily on the expressive effect of actions (what they tell others about our attitudes) but on their constitutive effect (what they make of us).”

Doremus advocates a constitutive approach to environmental legislation because environmental problems share four distinctive features that make them especially intractable. First, they are characterized by high levels of uncertainty. Second, they present conflicts between socially contested yet strongly held values. Third, solving them requires collective action. Fourth, to be effective, solutions to environmental problems must be durable over unusually long periods of time, but flexible enough to respond to new information and changing conditions.

She argues that the pervasive uncertainty implicated by environmental problems makes the underlying policy for approaching the problems especially important because it is impossible to know whether the proposed action will have the desired effect. The conflict over intractable values calls for a constitutive approach because resources are limited and “people disagree about how to value environmental resources and benefits.” Therefore, Doremus argues that an open discussion about environmental values and how those values compare to other social values is necessary. She also advocates for a constitutive approach because environmental problems require large numbers of people to “change their behavior in concert.” Finally, she argues that a constitutive law approach addresses the need for durable and dynamic solutions to environmental problems.

Doremus argues that a constitutive framework can help solve the problems with current environmental frameworks by offering a coherent set of principles for integrating both objective and subjective policies. It addresses “the lack of accessible principles” in previous proposals in environmental decisions by making its first step the articulation of core principles. It explicitly considers effects on the future by evaluating the effects on the future of social values, the
future of the environment, the future of technology, and the future of the political institutions that help govern society. It bears in mind environmental justice concerns by equitably allocating responsibility. It also strives to design for the long term and still provide the necessary flexibility and adaptation to unforeseen circumstances.

A constitutive approach to environmental law is not easily implemented in the current political and social framework. It calls for fundamental social changes such as more public participation in national issues. This participation includes meaningful discussions about social values, beliefs, and morals. This framework also calls for the government not only to invest in obtaining the results of this public participation, but also to use the results in drafting or amending environmental laws. Although this framework may help shape and satisfy long-term goals, it will seriously complicate the political process in the short term.

III. THE VALUE OF A CONSTITUTIVE LAW APPROACH IN BALANCING NATIONAL SECURITY AND ENVIRONMENTAL CONCERNS

The mid-frequency sonar controversy demonstrates that the balance between national security and the environment is a complicated issue with important interests on both sides of the scale, and it is not a useful long-term planning protocol to consistently shift from one extreme to the other based solely on the most recent, heart-wrenching disaster. The environmental damage left from the Cold War cost billions of dollars to clean up and is still an international problem. At present, the nation and the world face another such crisis as the end of the war on terrorism is not in sight. The impulse to

314. Id. at 367-71.
315. Id. at 372-75; see also Alma Lowry & Tom Stephens, Environmental Justice: The Environmental Justice Movement Is Working to Prevent Racial and Social Discrimination in an Environmental Context, 80 Mich. Bus. L.J. 24, 25 (2001) ("The environmental justice movement stems from the concern that low-income and minority communities suffer disproportionate exposure to environmental hazards, and that this disproportionate burden is unjust.").
316. Doremus, supra note 114, at 375-77.
317. See id. at 361.
318. See id.
319. See id. at 362.
320. Id.
321. These polarized shifts do not work solely in favor of the government. Legislation that may protect the environment is often adopted due to a disaster. See Enright, supra note 238, at 2876-79.
322. Dycus, supra note 19, at xiii-xv, 80-82 ("More than four decades of Cold War have left soil, groundwater, and buildings at defense facilities from coast to coast contaminated with hazardous and radioactive wastes.... By most estimates, the cleanup is going to cost more than $200 billion, maybe a great deal more.").
give the military full discretion to make the problem disappear as soon as possible feels overpowering. But, with the growing potential for damage caused by chemical and other technological weapons, and with the declining availability of natural resources throughout the world, this country cannot afford to give national security sole priority at the expense of the environment. Rather, there is a pressing need to find an approach that will assess the values of the general public, both for environmental protection and national defense, and implement these values into policies that take into account the flexibility that the military needs for national defense as well as the stewardship that the environment demands.

A cost-benefit analysis does not provide a workable framework for evaluating these competing interests. While many of the criticisms of a cost-benefit analysis apply equally to this debate, the fundamental flaw in this context is the inability to accurately value the intangible benefits of the environment. The evaluation of national security benefits is equally difficult to determine. Therefore, the cost-benefit analysis is particularly ill-suited for a discussion of the two conflicting intangible interests of the environment and national security. A better framework for analyzing environmental action is one that takes into account society’s environmental values. A constitutive approach to environmental policy would provide this framework.\footnote{323. Doremus, supra note 114, at 298; see also Tribe, supra note 108, at 614 (discussing the constitutive dimension of constitutional law as holding at stake the question of what “sort of society we are to be,” a question which “cannot be made with the help of any form of cost-benefit analysis or by any utility-maximizing strategy”); Tribe, Seven Deadly Sins, supra note 267, at 165 (discussing “overlooking the constitutive dimension of government action, including judicial action” as one of the seven “sins” of using a cost-benefit approach to constitutional law).}

The first and most difficult step is finding “a principled, transparent basis for environmental policy choices.”\footnote{324. Doremus, supra note 114, at 337.} This requires a serious public discussion of values. In the short term, this is not a very attractive proposal, particularly to those involved in the political process.\footnote{325. See id. at 362.} In the long term, a discussion of core environmental principles and values will ultimately create laws that help fulfill those goals and a society that wants to enforce and abide by those laws because they accurately reflect society’s conscience. The next step is to make decisions based on these principles that explicitly take into account the effects on the future.\footnote{326. Id. at 367.} The effects on the future include not only the practical tangible effects on the environment, but also include the social and cultural effects of the principles underlying the decisions. The question of where the decisions and actions proposed in the present will lead society in the future, not only circumstantially,
but also morally, is a question that needs to be asked and discussed in
depth before any decisions are acted upon.

A constitutive approach calls for clarification and open debate of
the values underlying environmental law, such as the values of
national security and environmental sustainability. At times, there
are real conflicts between these values. A clear determination and
discussion of these values would make it easier to create solutions that
reflect society's hierarchy of values. A constitutive approach does not
solve all the problems that arise when important values conflict in
environmental policies. It does, however, empower the public to be a
part of policy decisions that implicate important social values and
make it more likely that those decisions reflect the actual values of
society at large.

A. The Practical Effects of the Implementation of a Constitutive Law
Approach

Part III.A of the Note assumes that one would conclude under a
constitutive analysis that society values environmental protection and
conservation, even in the face of important national security concerns.
This is not an unreasonable assumption given the public reaction to
recent environmental law proposals. This Note does not assume the
priority of either issue over the other, but does assume that society
would not value one interest to the complete detriment of the other.
Part III.A addresses in more detail the role that each branch of
government should play in the creation, implementation, and
enforcement of environmental law and programs that implicate
military and national security concerns. It specifically calls for an
implementation of laws and programs that look toward long-term
environmental approaches and goals, instead of more reactive
legislation that seeks to respond to the most recent national crises.
However, “[c]ontinuity and change are essential attributes of a legal
system. Although abrupt or frequent changes are often not desirable,

327. Id. at 378.
328. See id. at 362 n.254 (“Given recent events, no one would suggest that
environmental protection is currently the highest priority for most Americans.
Nonetheless, Americans continue to express strongly pro-environment attitudes in
polls.... 78% of poll respondents objected to proposals to exempt the Defense
Department from environmental laws.”); see also Doremus, supra note 290, at 250.
Doremus notes:
Concern for the future and respect for the past are additional conventional
values that can contribute to environmental protection.... Today, that
concern appears to be so widely shared that there may be little need to
worry about promoting it or ensuring that it develops; perhaps any well-
socialized human being has at least some concern for the next few
generations.... In fact, those obligations are cited as the single strongest
influence on positive attitudes toward environmental protection.

Id.
laws must change to meet the needs of changing times . . . .”

Any proposal that seeks to suggest a long-term policy plan must allow for law to reflect the changing needs of society, but must also temper reactive stances based on relatively short-term crises.

The proposal must also take under serious consideration the separation of powers between the executive, legislative, and judicial branches of government. It must consider that “[e]fforts to shape federal environmental policy . . . have become the subject of fierce competition between actors in all three branches of government . . . intensifying as each branch has developed new tools for influencing regulatory policy.”

This Note does not seek to review the intricacies of the arguments surrounding the difficult and expansive issues of the separation of powers in the environmental arena. Rather, it seeks to give broad guidelines on how environmental issues, such as the controversy over mid-frequency sonar, should be addressed, assuming that it is the role of the legislature to create clear laws that the judiciary is to apply and that the executive must abide by and implement.

1. The Executive

Environmental self-regulation solely by the executive branch is not a serious proposal. The military should not be the sole regulator of its own environmental stewardship. The role of the military is “to fight and win the nation’s wars.” An important part of this role is preparation and realistic training: the DOD consistently reiterates the concept that “we need to train as we fight, but the reality is we fight as we train.” It is naïve to think that military leaders and soldiers, no matter how much training in considering environmental damages that may result from their action, will place a top level priority on environmental concerns when the job of the military is to prepare for, fight, and win wars.

The military also has a poor track record of environmental stewardship. Military readiness and preparation to protect the country’s national security during the Cold War “left a legacy of hazardous waste, nuclear contamination, polluted air, water and soil,

331. The executive branch and the President, in particular, have a long history of maintaining a highly influential position in environmental law. See generally id. at 27-34 (discussing a history of presidential involvement in environmental policy beginning with President Jefferson). While the executive branch will likely always be influential in this arena, it does not follow that it should possess the exclusive power both to create and enforce its own regulatory scheme.
332. Bethurem, supra note 81, at 112.
and resulted in the destruction of natural and cultural resources."

With the advent of new technology and highly advanced methods of warfare, the potential environmental dangers have become even more devastating. The military manages "[u]nexploded and surplus ordnance, millions of gallons of liquid waste that is both extremely corrosive and highly radioactive, chemical weapons, excess nuclear warheads and weapons-grade plutonium, and defoliant production residues...." Given the enormous responsibilities that come with the handling of these substances, coupled with a poor history of proper environmental consideration, the military needs external regulation in order to ensure that decisions that represent all of society's values are being made.

Another problem with regulation of defense activities by the executive branch alone is the unitary executive policy of the Department of Justice. This policy prevents the EPA "from issuing administrative compliance orders or filing suit against other federal agencies for violations" "without the President's [approval], if at all." Under most environmental statutes, the EPA cannot levy a penalty against other agencies. The principles behind the unitary executive theory have merit, "implicat[ing] very real executive branch management and separation of powers issues." Regardless, the unitary executive approach eliminates another method of regulation that helps ensure environmental compliance of private entities.

The military has made major improvements to its environmental policy over the past fifteen years. The DOD has created an environmental program that centers on the "four pillars" of

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335. Applegate, supra note 334, at 354-55 (footnote and citations omitted).

336. See Dycus, supra note 19, at 158-59; Applegate, supra note 334, at 373-79.

337. Dycus, supra note 19, at 158. The EPA has developed an elaborate procedure for internal resolution of disputes with other executive agencies. Id.

338. Applegate, supra note 334, at 373. Congress addressed this problem in the context of the RCRA by adding the United States to the list of persons that the EPA can bring suit against. Congress has not done this for any other environmental statutes. Dycus, supra note 19, at 159.

339. Dycus, supra note 19, at 159. There is an exception to the no-fine policy for CERCLA violations. Id.


The heads of DOE [Department of Energy], DOD, and EPA all report directly to the President. While disagreement among agencies is hardly unexpected (and even healthy, within limits) the President's responsibilities include the implementation of a coherent policy on, among other things, the compliance of federal activities with environmental laws. . . . Moreover, allowing one limb of the executive branch to punish another accomplishes nothing and may in fact be counterproductive.

Id. at 374-75.
restoration, compliance, pollution prevention, and conservation.\textsuperscript{341} Environmental planning is a component to each of these four pillars and is included in DOD manuals for proposed actions.\textsuperscript{342} Military commanders and soldiers operate under new statements of mission that include "stewardship of the land, air, water and natural... resources."\textsuperscript{343} The incorporation of environmental responsibility in the mission and culture of the military is an important step that should be encouraged in the future. It is not, however, a large enough step to validate internal regulation of environmental stewardship.

2. The Legislature

The legislature is the branch of government that will likely bear the heaviest burden in shifting to a constitutive approach to environmental law. It will be responsible for both implementing systems that include more public participation, and drafting legislation that will conform to the values that society currently holds as well as the ideals that society strives for in the future.\textsuperscript{344} Essentially, it will be the duty of the legislature to ask the populace the question: "What kind of society do we want to be?"\textsuperscript{345} and to then solicit a real, fully informed answer. This will require Congress to stop approaching the environment as a highly politicized, partisan issue, but instead, to revisit the relatively bipartisan approach that existed when the first major environmental laws were introduced.\textsuperscript{346}

Greater public participation is necessary to create legislation that reflects social values.\textsuperscript{347} As Professor Stephen Dycus states: "We are all responsible for the actions of our government, wherever the government acts and for whatever purpose. Therefore to the extent possible, the public must be able to participate in both the formulation and enforcement of government policy..."\textsuperscript{348} Practically, greater public participation may be implemented by

\begin{itemize}
  \item \textsuperscript{341} Bethurem, \textit{supra} note 81, at 115.
  \item \textsuperscript{342} Id. at 117.
  \item \textsuperscript{343} Dycus, \textit{supra} note 19, at 6 (citation omitted).
  \item \textsuperscript{344} See Doremus, \textit{supra} note 290, at 241 ("We should, therefore, plan our policies and build our institutions with an eye to their role in building the values of present and future generations and in translating those values into environmentally protective actions.").
  \item \textsuperscript{345} Tribe, \textit{Seven Deadly Sins}, \textit{supra} note 267, at 167.
  \item \textsuperscript{346} See generally Richard J. Lazarus, \textit{A Different Kind of "Republican Moment" in Environmental Law}, 87 Minn. L. Rev. 999, 1001-29 (2003) (discussing the bipartisan appeal of environmental law beginning in the 1970s and its gradual demise throughout the past decades, specifically since the Republican party has been gaining majority control over all branches of government); Percival, \textit{supra} note 108, at 44 ("While the partisan split on environmental issues in Congress still generates considerable sparring over appropriations riders, bipartisan support for environmental legislation is not entirely a thing of the past.").
  \item \textsuperscript{347} See infra Part III.A.4.
  \item \textsuperscript{348} Dycus, \textit{supra} note 20, at 314-15.
\end{itemize}
soliciting public comments on environmental documents through community, social service or religious organizations, or through radio and television; holding meetings at community-friendly times in accessible locations; translating key documents into the language spoken by the affected community; establishing information repositories with documents about the proposed action; and providing technical assistance to interpret technical documents to help develop potential alternatives and mitigation measures.  

Some federal agencies and states have adopted these measures in connection with NEPA and other environmental statutes and, in response, have received effective feedback from affected communities. These types of measures to ensure public participation must be mandated by Congress in order to guarantee that all affected communities are given the opportunity to have meaningful input.

In order to satisfy the long-term component of the constitutive approach, Congress needs to incorporate the precautionary principle in decision making. The precautionary principle provides, in essence, that “when an activity raises potential threats to the environment or human health, precautionary measures should be taken even if there is scientific uncertainty about those impacts.” The principle includes taking into account risks that would be potentially harmful even if the effects cannot be scientifically proven. It is “designed to lead to overall reductions in risk-producing activities.” Some states have already implemented precautionary principles in their decision making with success. Applying this method on the federal level will likely lead to more ethical outcomes in environmental legislation.

349. Rechtschaffen, supra note 130, at 121-22 (citations omitted).
350. Id. at 121-22 & nn.105-07.
351. Id. at 112.
352. Id. at 114.
353. Id. at 115-16. The Los Angeles Unified School District instituted the precautionary principle by adopting a policy of requiring use of integrated pest management practices, stating that industrial producers should be required to prove that their pesticide products demonstrate an absence of risks rather than requiring the government or public to prove that human health is not being harmed and striving to eliminate the use of all chemical controls. Id. at 115. The Massachusetts Toxic Use Reduction Act requires companies to analyze their use of toxic chemicals and undergo a detailed planning process aimed at identifying options for reducing chemical use. In the following six years, the companies reduced their toxic chemical emissions, their total chemical waste, and their total use. Id. at 115-16. In San Francisco, the Environment Commission passed an ordinance that requires city departments to give preference to purchasing products that have lesser impacts on human health and the environment. Id. at 116.
354. Rechtschaffen advocates that this reform would also lead to more ethical outcomes in the context of environmental justice. Id. at 96. Distributive or social justice or fairness should also be a component considered in the implementation of the precautionary principle. See Sheila Foster, Impact Assessment, in The Law of Environmental Justice: Theories and Procedures to Address Disproportionate Risks 256, 287-89 (Michael B. Gerrard ed., 1999).
The use of the precautionary principle in environmental decision making should extend to the military as well as other public and private entities. Most environmental issues call for collective action to be effective in any way. In this context, "[n]o one wants to play the sucker." If the department of the federal government that is responsible for a large portion of the nation's environmental damage does not have to comply with long-term environmental planning protocols, it creates the appearance that those who do comply are unnecessarily bearing the immense cost and responsibility for implementing social environmental values.

Under this theory, the National Defense Authorization Act should be repealed, at least in part. The distinction between the military and other public or private entities that affect the environment is that the military is responsible for the nation's security, a role that most of society would view as very important. In cases of dire need, it is necessary to provide for greater flexibility in environmental laws. These cases of dire need should not include the day-to-day functions of the military, such as training or "military readiness" activities. These types of activities define the culture of the military and shape the way that society as a whole views environmental values and ethics. If the military is allowed to disregard long-term environmental effects and plan only for short-term benefits, the government disregards the values and goals of society and replaces them with a new principle under which environmental noncompliance that may be potentially devastating can be rationalized.

It is equally important for the legislature to amend NEPA to ensure public disclosure of a broader range of proposed and contemplated military actions. If the public is to be more involved in long-term environmental decision making, it needs to be fully informed of the issues. This implicates national security concerns because it may involve releasing confidential information to the public. This amendment to NEPA would not necessarily require full disclosure of the details that do not have a bearing on the environmental impact of the proposed or contemplated actions. For example, the issuance of a hypothetical EIS of all proposed and contemplated actions would keep the public informed of possible effects without releasing details

355. Doremus, supra note 114, at 329.
356. See generally Dycus, supra note 19 (discussing the deleterious effects of military activity on the environment).
358. This still assumes that society values long-term preservation of the environment and a society that will continue to value nature.
360. See Lichter, supra note 70, at 683-84 (making policy arguments supporting the disclosure of information of contemplated federal agency actions).
that must be kept confidential for national security purposes. This type of disclosure would also fully protect the public by examining the effects of all contemplated actions while protecting the security of confidentiality because it would be “impossible to ascertain which of the known alternatives finally was selected.” Another possibility is to amend and make mandatory the discretionary suggestion promulgated in the regulation addressing NEPA’s treatment of sensitive information. The regulation provides that EIS and EA documents “may be organized so that classified portions can be included as annexes, in order that the unclassified portions can be made available to the public.” This disclosure, so long as it includes the relevant effects of whatever “classified” action is taking place, would empower the public to make better informed decisions and take a greater role in choices that significantly affect the community.

3. The Judiciary

The judiciary needs to take a more proactive role in enforcing military compliance with environmental laws. To facilitate this change in judicial approach, the legislature needs to be explicit about its intent for how the judiciary should enforce environmental laws in suits involving the military. After all, “[m]any of the rules and procedures needed to reconcile national defense with environmental protection will be found in the United States environmental laws.” The real problem is enforcement. As discussed above, historically, the defense establishment has not been exempted from most major federal environmental laws, but in many cases, federal courts have allowed it to behave as if it were. While the MERA may be viewed as extreme by critics because it proposed revocation of all national security exemptions and waivers of sovereign immunity, the Act’s clear indication of how the judiciary should interpret Congress’s intent for military compliance is a model for the clarity needed in all environmental legislation. The legislature should clarify that courts must consistently require “defense agencies to follow existing environmental rules and procedures to the same extent as private entities,” minus exemptions for clear national security emergencies. In this regard, the legislature also needs to be explicit about what

361. See id. at 684.
362. Id. at 689; see also 40 C.F.R. § 1507.3(c) (2003).
363. 40 C.F.R. § 1507.3.
364. Id. § 1507.3(c).
365. Dycus, supra note 19, at 3.
366. See supra Part I; see also Dycus, supra note 19, at 16-19; Applegate, supra note 334, at 368-69.
368. Applegate, supra note 334, at 369; see also Dycus, supra note 19, at 16-19.
constitutes a valid national security concern, and must narrowly tailor that definition to exclude questionable determinations regarding material that should be made available to the public. Legislation should include factors for judicial determination and their relative importance, as well as allocations and definitions of the burden of proof necessary to establish the basis for deference. The judiciary should also approach environmental issues with the constitutive framework in mind, in order to interpret laws in a way that reflects the type of society the populace wants.

4. The Public

While changes in environmental legislation and its enforcement can provide a better framework for long-term sustainability, the responsibility for implementing social values into law and achieving the type of society that we want in the future ultimately lies with the public. In the constitutive approach advocated in this Note, the individual's meaningful contribution to open discussions about environmental values and ethics is of the utmost importance. This aspect of the approach demands that communities assume responsibility for thinking, discussing, and debating environmental issues that affect the immediate community as well as more remote communities and future generations. In the abstract, this responsibility seems manageable. In reality, however, it calls for influential community groups to include environmental issues in their agendas. It calls for the government and agencies to disclose more information to the public in order to create an informed public, and also for the public to analyze this information actively and make informed decisions. Society must be willing to live by the principles it proclaims, including apportioning adequate funding to necessary programs and changing daily activities to be mindful of the effect each individual has on communities she may never encounter.

369. Applegate, supra note 334, at 371. CERCLA's remedy section is an example of such legislation that sets out a more elaborate system of factors, with priorities and preferences built into them. See 42 U.S.C. § 9621(b)-(d) (2000); see also Applegate, supra note 334, at 371 n.78.
370. See Tribe, supra note 108, at 606; Tribe, Seven Deadly Sins, supra note 267, at 157.
371. See supra Part II.B.3.
372. See Rechtschaffen, supra note 130, at 121. Rechtschaffen suggests several concrete examples of methods to add to customary practices for public outreach and thereby increase public participation in the political process of environmental decision making. Id. at 121-22.
373. See Ichter, supra note 70, at 682-84; supra III.A.2.
374. See Doremus, supra note 114, at 360-67; see also Meyer & Volk, supra note 240, at 58-65 (criticizing the dependency of the country on oil and the influence that has on both foreign military and domestic environmental policy).
Environmental issues cannot be solved purely by legal solutions. To fulfill long-term environmental goals, society must also be committed to nonlegal approaches such as an undertaking of societal value formation. Current environmental policy is based on a “want-oriented perspective.” To illustrate this point, Professor Laurence Tribe describes the installation of more than 900 plastic trees and shrubs along a major boulevard in Los Angeles County. This would, in theory, satisfy the human desire to preserve nature if the desire is based solely on its beauty to human beholders. Tribe argues that this assumption, that the value of something such as nature is based on “manifestations of individual human preference[,]...does not withstand scrutiny.” He advocates that nature has a value in itself. Doremus echoes this view. Current policy, however, does not. If society does not want to reinforce policies that may eventually create a society that accepts plastic trees and astroturf as a satisfactory substitute for the real thing, the actions of the society must reflect that objective. The commitment to changing public policy through law is an important aspect of this goal, but it cannot be exclusive and it will not address some of the most important aspects of social value formation. Some of the most formative actions and policies exist in the daily actions of individuals, from the types of cars they drive to the funding of outdoor educational programs for children and adolescents. These issues arguably should not be addressed by federal law. But, perhaps bringing these issues to the forefront of social consciousness by asking what the values of society are, and what they should be in the future, will influence individuals to act in a way that contributes to the overall social good.

B. The Effect of a Constitutive Law Approach on the Debate over Mid-Frequency Sonar

A constitutive law framework does not create easy answers, nor does it create an “objective,” “scientific” process that will allow the government or society to reach an answer once a few numbers are plugged into different equations. Rather, the constitutive

375. See Doremus, supra note 290, at 241; Tribe, Plastic Trees, supra note 267, at 79-88.
377. See id. at 61.
378. Id. at 72.
379. Id.
380. See generally Doremus, supra note 290 (arguing that nature has an inherent value).
381. See supra Parts II.B.1-2.
384. Doremus, supra note 290, at 256-60.
385. See supra Parts I.C, II.B.2-3.
framework calls for a system of lawmaking and decision making that reflects the values of society. This type of system does not exist in a practical or palatable way in the current government. Therefore, reaching an answer addressing how society would evaluate and balance the competing interests implicated by the mid-frequency sonar debate is impossible. But, this difficulty and impossibility is particularly why a constitutive framework needs to be implemented, so that the laws and decisions that the government makes, which may have irreversible implications on either side, truly reflect the values and principles held by society.

CONCLUSION

National defense and the environment are difficult issues for this country to address because these two significantly important social interests do conflict, usually at times of heightened national strain, confusion, anxiety, and frustration. This is apparent in the controversy over the military testing of mid-frequency sonar and its effect on marine mammals. The government has failed up to this point to propose any plan that addresses how to proceed if and when these times of conflict occur. Instead, environmental legislation and its practical application to the military have swung like a pendulum in response to the correlating circumstances of foreign affairs. With a war on terrorism that has no predictable end and the evolution of military technology that can wreak irreparable harm on the environment, it is absolutely necessary for society and the government to hold themselves accountable for both the immediate defense of the country and for long-term environmental sustainability. The populace must take up the responsibility of determining what its values are and what it wants the values of the future to be. In turn, the government must take up the responsibility of giving the people the information they need to make fully informed decisions about their values and then actually implement those values into policy and law.

386. See supra Parts I.C.2, II.B.3, III.A.

387. It is arguable, if not probable, that the current approach to environmental policy as it relates to national security, embodied in the National Defense Authorization Act, does not accurately reflect true social values in this arena. See supra note 328.