WARS, WALLS, AND WRECKED ECOSYSTEMS: THE CASE FOR PRIORITIZING ENVIRONMENTAL CONSERVATION IN A NATIONAL SECURITY-CENTRIC LEGAL SYSTEM

BY

SKYE M. WALKER*

Maintaining a strong military. Furthering national security by securing the skies, seas, and borders. Promoting peace and order by using tear gas to diffuse chaotic and potentially dangerous situations. To the U.S. government, these are laudable objectives—objectives that often outweigh other policy goals such as environmental conservation. As a result, U.S. laws are ridden with exemptions and waivers that allow the Department of Defense and Department of Homeland Security to bend, if not entirely circumvent, environmental requirements. Unsurprisingly, the U.S. Supreme Court, the Ninth Circuit Court of Appeals, and U.S. District Courts within the Ninth Circuit have commonly rejected claims challenging the legality of military operations under environmental laws such as the National Environmental Policy Act, showing exceptional deference to the Armed Forces. This response from Congress and federal courts enabled the destruction of ecosystems and the acceleration of climate change, with few legal repercussions for the parties responsible. While pushing back against exemptions and military super-deference are important objectives, one additional opportunity may inspire change more quickly and produce effective results, namely, reforming the Department of Defense's and Department of Homeland Security's budgets to include greater appropriations for environmental work. The time is now to seek justice for the environment, and it need not come at the cost of jeopardizing national security or military preparedness.

*J.D., Lewis & Clark Law School, expected 2022; B.A. Political Science, Oregon State University. The author would like to extend gratitude to Professor Tom Buchele, Hillary Gell, and Anna Laird for their support throughout the research and writing process.

I. INTRODUCTION 914
II. THE CURRENT LEGAL FRAMEWORK 917
  A. *Military Exemptions in Federal Environmental Laws* 917
  B. *Environmental Law Waivers under the Illegal Immigration Reform and Immigration Responsibility Act of 1996* 921
  C. *The Judiciary's Approach to Resolving National Environmental Policy Act Lawsuits Challenging Military Operations* 925
    1. *Injunction Battles: Weighing Military Interests against Environmental Preservation* 925
    2. *Difficulties Establishing Procedural Violations of the National Environmental Policy Act* 930
III. ENVIRONMENTAL CONSEQUENCES OF THE CURRENT FRAMEWORK 933
  A. *The Impact of the Department of Defense's Military Operations* 934
  B. *The Impact of the Department of Homeland Security's Programs That Purport to Further National Security* 935
IV. A PATH FORWARD: BUDGET REFORM 937
  A. *The Growing Motive to Restructure Defense and National Security Budgets, and to Increase Environmental Stewardship in Military Operations* 938
  B. *Current Funding Gaps for the Department of Defense's and Department of Homeland Security's Environmental Programs, and the Best Utilization of Additional Resources* 941
V. CONCLUSION 946

I. INTRODUCTION

"[T]his is a recognition that national defense is a unique area . . . . It is also a realization that some changes, even major changes, in the environment may be required for the survival of the Republic."[1] This quote accurately characterizes the special role that national defense and national security (NDNS) play in the U.S. legal system. Congress shaped federal law to accord NDNS agencies,[2] such as the Department of

[1] Concerned About Trident v. Schlesinger, 400 F. Supp. 454, 484 (D.D.C. 1975).

[2] The term "NDNS agencies" will be used throughout this Chapter to refer collectively to both the U.S. Department of Defense and the U.S. Department of Homeland Security.

Defense[3] (DOD) and Department of Homeland Security[4] (DHS), special leeway and deference when carrying out their operations—even if Mother Nature suffers in the process.[5] Similarly, federal courts have not served as a meaningful forum to hold the DOD and DHS accountable.[6]

In the course of preparing for war and securing borders and cities from perceived threats, NDNS agencies have unintentionally degraded the very ecosystems that humans rely on to support life. The DOD, for example, has released billions of metric tons of carbon dioxide into the atmosphere, adversely impacted a staggering number of wildlife species, and contaminated natural resources to such a degree that more than two-thirds of all Superfund sites listed by the Environmental Protection Agency—approximately 900 sites—are affiliated with military operations.[7] Considering the scale and magnitude of environmental harm, environmental advocates should take swift action to increase awareness about the issue and adopt workable solutions.

Attempting to limit or repeal overly broad NDNS exemptions in federal law is an important objective, as is pushing back against the judiciary's use of sweeping deference when evaluating legal challenges to NDNS operations. However, these approaches, by themselves, are unlikely to remedy the issue in the foreseeable future.[8] Advocates should explore additional avenues to bring about faster, more concrete change; for example, encouraging the DOD and DHS to better absorb the negative externalities that accompany NDNS operations by adding vigor to their environmental restoration efforts.[9] DOD and DHS could accomplish this objective by amending the structure of their multi-billion dollar budget to allocate greater funding for environmental conservation and green technology.[10] The DOD, for example, has already begun leveraging the resources and technical expertise of private and public actors in order to

---

[3] The U.S. Department of Defense, established in 1947, is the principal executive agency in charge of coordinating the U.S. Armed Forces, including the Army, Navy, Marine Corps, Air Force, Space Force, Coast Guard, and National Guard. *Our Forces*, U.S. DEP'T DEF., https://perma.cc/RV7L-5ADU (last visited May 25, 2021).

[4] The U.S. Department of Homeland Security was established in response to 9/11 by the Homeland Security Act of 2002, with the purpose of preventing terrorist attacks within the U.S., reducing America's vulnerability to terrorism and similar threats, and helping America recover from any attacks that may occur. *Assessing DHS 10 Years Later: How Wisely is DHS Spending Taxpayer Dollars?: Hearing Before the Subcomm. on Oversight and Management Efficiency of the Comm. on Homeland Security*, 113th Cong. (2013) (statement of Rep. Jeff Duncan, Chairman of the Subcomm. on Oversight and Management Efficiency of the Comm. on Homeland Security). Among other duties, the Department is tasked with managing the flow of people and goods into the U.S. by securing borders. *Secure U.S. Borders and Approaches*, U.S. DEP'T HOMELAND SECURITY, https://perma.cc/29JX-KSBL (last visited May 25, 2021).

[5] *See* discussion *infra* Part II.

[6] *See* discussion *infra* Part II.

[7] *See* discussion *infra* Part III. *See also* John W. Hamilton, *Contamination at U.S. Military Bases: Profiles and Responses*, 35 STAN. ENV'T L. J. 223, 224 (2016).

[8] *See infra* notes 185–187 and accompanying text.

[9] *See* discussion *infra* Part III.A–B.

[10] *See* discussion *infra* Part IV.A.

preserve lands and implement greener technologies, but the lack of resources limits their work.[11]

Part II of this Chapter seeks to explore how the legislature and judiciary have given NDNS policy preferential treatment. First, the discussion sheds light on various exemptions codified in federal environmental laws that NDNS actors may invoke to further military and national security operations.[12] Second, the piece explores the DHS Secretary's authority to waive environmental laws under the Illegal Immigration Reform and Immigration Responsibility Act of 1996 (IIRIRA).[13] Third, the Chapter examines federal courts' unwillingness to interfere with NDNS operations when deciding whether to issue an injunction or to find procedural violations of the National Environmental Policy Act (NEPA).[14] Part III then uncovers the consequences of the current framework. Lack of accountability in the legal system exacerbates the scale and magnitude of NDNS-induced environmental harm, contributing heavily to climate change, natural resource contamination, and biodiversity loss.[15]

Finally, Part IV identifies a workable solution that would facilitate a more harmonious coexistence between NDNS operations and the environment: strategic budget reform. With a budget that exceeds the *combined* military spending of America's major rivals—Russia and China—the DOD is well equipped to increase appropriations for environmental work, and there exists a growing movement to do so.[16] Similarly, critics have called for DHS to restructure its massive, poorly-managed budget.[17] With more resources, NDNS agencies could strengthen existing environmental programs and expand the number of partnerships among themselves, the private sector, and non-governmental organizations. Additional partnerships would enable the DOD and DHS to accelerate development of innovative and eco-friendly defense technologies, invest more heavily in renewables, and manage public and private lands more effectively to protect natural resources and wildlife.[18]

---

[11] *See* discussion *infra* Part IV.B.

[12] *See* discussion *infra* Part II.A.

[13] Illegal Immigration Reform and Immigrant Responsibility Act of 1996, Pub. L. 104–208, § 102(a)–(c), 110 Stat. 3009–546, 554–555 (1996), as amended by the REAL ID Act of 2005, Pub. L. 109–13, § 102, 119 Stat. 302, 306. *See also* discussion *infra* Part II.B.

[14] National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321–4370h (2012); *see also* discussion *infra* Part II.C.

[15] *See* discussion *infra* Part III.

[16] NETA C. CRAWFORD, PENTAGON FUEL USE, CLIMATE CHANGE, AND THE COSTS OF WAR 1 (2019); *see also* discussion *infra* Part IV.A.

[17] *See infra* notes 204–206 and accompanying text.

[18] *See* discussion *infra* Part IV.B.

II. THE CURRENT LEGAL FRAMEWORK

In the 1960s and 70s, Congress catered to NDNS agencies by creating exemptions and waivers that allow the DOD and DHS to bypass environmental laws when, in the agency's view, national security demands it.[19] Courts have played a role in advancing NDNS policy as well, giving immense weight to the professional judgment of high-ranking officials in NDNS agencies when evaluating disputes between environmentalists and the Armed Forces.[20] Courts have refused to interfere with NDNS operations except when agencies have made egregious errors.[21] In effect, both Congress and federal courts have played a passive role in holding the DOD and DHS accountable for operations that degrade the environment.

Perhaps society gives the concept of NDNS so much weight because without protection from foreign invasions, terrorism, and crime, all other policy interests cease to exist. Perhaps past events such as world wars, civil wars, and 9/11 have heavily influenced the way that society perceives NDNS. Or perhaps the answer lies in our nation's roots: in 1787, the Framers of the U.S Constitution expressly provided for a strong national defense—not the right to a clean environment.[22] Fast-forward 228 years, and NDNS is still at the forefront of political agendas, allocating the largest portion of U.S. discretionary spending every year.[23] Regardless of the cause, the result remains the same: where NDNS officials believe that national security is at risk, all other policy considerations must fall.

A. Military Exemptions in Federal Environmental Laws

Nearly every federal environmental law contains an exemption providing the DOD with greater flexibility and leeway to carry out its

---

19 *See generally* E.G. Willard et al., *Environmental Law and National Security: Can Existing Exemptions in Environmental Laws Preserve DOD Training and Operational Prerogatives Without New Legislation?*, 54 AIR FORCE L. REV. 65, 82 (2004) (describing various NDNS exemptions in federal environmental laws, as well as exemptions established through common law).

20 *See infra* notes 93–95 and accompanying text.

21 *See infra* notes 93–95 and accompanying text.

22 For example, Article I, Section 8 of the Constitution vests Congress with the right "[t]o lay and collect Taxes, Duties, Imposts and Excises, to pay the Debts and provide for the common Defence and general Welfare of the United States;" "To declare War . . . . To raise and support Armies . . . . To provide and maintain a Navy; To make Rules for the Government and Regulation of land and naval Forces; To provide for calling forth the Militia to execute the Laws of the Union," and "[t]o provide for organizing, arming, and disciplining, the Militia." U.S. CONST. art. I, § 8, cl. 1, 11–16.

23 *See Federal Spending: Where Does the Money Go,* NAT'L PRIORITIES PROJECT, https://perma.cc/EJ7P-YZUD (last visited Mar. 17, 2021) (showing that in 2015, military spending encompassed over half of the discretionary budget—53.71 percent—while Congress spent only 6.28 percent on education, 5.93 percent on health and Medicare, and 3.51 percent on energy & environment).

operations.[24] Congress limited most exemptions to emergencies and situations where it is in the "paramount interest" of the nation to expedite national defense actions; however, skeptics assert that several exemptions are overly broad and overly utilized.[25] Even the Ninth Circuit Court of Appeals criticized the Navy for relying on an exemption in a situation that did not justify its use.[26] This Section seeks to explore exemptions with varying degrees of applicability and potentials for misuse.

NEPA does not expressly exempt the military from compliance with the statute. However, NDNS exemptions in related laws and regulations have eroded NEPA's efficacy as an environmental protection tool. First, Congress created a workaround for the DOD in the Administrative Procedure Act (APA),[27] a statute that provides a cause of action for those seeking to enforce NEPA requirements.[28] The APA national security exemption is narrow and rarely invoked, applying only to "military authority exercised in the field in time of war or in occupied territory."[29] However, workarounds in regulations issued by the Council on Environmental Quality (CEQ)—the entity that oversees NEPA implementation[30]—are more broad.[31] One regulation provides for alternative arrangements where emergency circumstances warrant taking an action with significant environmental impacts without observing certain regulatory requirements.[32] Another allows the Air Force, in limited circumstances, "to take immediate action having significant environmental impact, without observing all the provisions of the CEQ regulations."[33]

---

[24] *See generally* Willard et al., *supra* note 19 (describing the various exemptions available to DOD in various environmental laws, including the Resource Conservation and Recovery Act of 1976, the Clean Air Act, the Clean Water Act, and NEPA, among others).

[25] 33 U.S.C. § 1323(a); 42 U.S.C. § 7418(b). In response to 9/11, the DOD convinced Congress to attach riders to the 2004 and 2005 Defense Appropriation Acts, which severely limited application of the Endangered Species Act, Marine Mammal Protection Act and Migratory Bird Treaty Act to military activities. These exemptions have been heavily criticized for their wide-reaching scope and blanket applicability. Hope Babcock, *National Security and Environmental Laws: A Clear and Present Danger?*, 25 VA. ENV'T L. J. 105, 127–31 (2007).

[26] Willard et al., *supra* note 19, at 82–83.

[27] Administrative Procedure Act, 5 U.S.C. §§ 551–559, 701–706, 1305, 3105, 3344, 4301, 5335, 5372, 7521 (2018).

[28] *Id.* § 702.

[29] *Id.* § 701(b)(1)(G).

[30] *See* THE WHITE HOUSE, COUNCIL ON ENV'T QUALITY, https://perma.cc/XA77-EDZV (last visited June 26, 2021).

[31] 40 C.F.R. § 1506.12 (2020); 32 C.F.R. § 989.34(b) (2020).

[32] 40 C.F.R. § 1506.12. *See also* Memorandum from Mary B. Neumayr, Chairman, to Heads of Fed. Dep't & Agencies, COUNCIL ON ENV'T QUALITY, EXEC. OFFICE OF THE PRESIDENT, Emergencies and the National Environmental Policy Act Guidance 1, 2 (2020) (providing guidance to agencies on how to navigate the alternative arrangements exception of NEPA for emergency circumstances).

[33] 32 C.F.R. § 989.34(b).

The DOD has commonly invoked the former CEQ exemption, which provides for alternative arrangements, to address natural disasters, insect infestations, release of chemicals and hazardous substances, and containment of disease-ridden fish at hatcheries.[34] However, components within the DOD have relied on the alternative arrangements exemption five times between 1980 and 2018 to expedite various military and national security actions.[35] Similarly, the Air Force has, in limited circumstances, invoked the latter exemption to move forward with operations without complying with NEPA requirements such as public notice and comment, or production of a final environmental impact statement.[36]

In addition to the APA and CEQ regulations, the Base Closure and Realignment Act (BCRA)[37] limits NEPA's applicability to military actions. While NEPA does apply to the Secretary of Defense during the process of closing or realigning a military installation, the Act prohibits consideration of NEPA when selecting installations to close or realign.[38] Further, the Act created a remarkably short, 60-day statute of limitations for individuals seeking judicial review of base closure processes under NEPA.[39] These restrictions interfere with NEPA's mandate to integrate environmental issues into agency decision-making processes and to ensure transparency.[40]

Next, the Endangered Species Act (ESA),[41] the Marine Mammal Protection Act of 1972 (MMPA)[42] and Migratory Bird Treaty Act (MBTA)[43]—all U.S. laws that strive to preserve and protect wildlife—have broad exemptions for DOD activities.[44] Firstly, the ESA contains a

---

[34] *Alternative Arrangements Pursuant to 40 CFR Section 1506.11 – Emergencies*, COUNCIL ON ENV'T QUALITY, https://perma.cc/6ZPG-3DEV (last updated May 2019).

[35] *Id.* Additionally, the Navy invoked CEQ's "alternative arrangements" exemption in *Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 18–19 (2008), which allowed the Navy to conduct sonar training activities while remaining exempt from the Marine Mammal Protection Act, so long as they complied with certain mitigation, notice, research and reporting requirements. In *Winter*, the Ninth Circuit casted doubt on whether the situation in that case was truly an "emergency" justifying an exemption, given the routine nature of the training activities involved and the fact that the Navy was fully aware of NEPA's requirements when they planned the exercises at issue. *Winter*, 555 U.S. at 19. The U.S. Supreme Court, however, saw the sonar program in a different light, reiterating the critical role that sonar training plays in securing the nation from imminent and severe underwater threats. *Id.* at 33.

[36] Willard et al., *supra* note 19, at 82.

[37] Defense Authorization Amendments and Base Closure and Realignment Act, 10 U.S.C. § 2687 (2018).

[38] *Id.* § 2687(c)(1)–(2).

[39] *Id.* § 2687(c)(3).

[40] Dan Farber, *Enforcing NEPA's Forgotten Mandate*, LEGAL PLANET (Aug. 17, 2020), https://perma.cc/GND5-TGKU.

[41] Endangered Species Act of 1973, 16 U.S.C. §§ 1531–1544 (2018).

[42] Marine Mammal Protection Act of 1972, 16 U.S.C. §§ 1361–1421h (2018).

[43] Migratory Bird Treaty Act, 16 U.S.C. §§ 703–712 (2018).

[44] 16 U.S.C. §§ 703, 1361, 1531.

broad exception to § 7(a)(2)'s consultation requirement.[45] The exception allows "[a] Federal agency, the Governor of the State [where the] action will occur, if any, or a permit or license applicant [to] apply" for an ESA exemption for activities that would likely jeopardize species or habitat.[46] The Endangered Species Committee evaluates the request, but the Committee must approve the exemption if the Secretary of Defense finds that the "exemption is necessary for reasons of national security."[47] The DOD has never invoked this exemption, but it nevertheless serves as a powerful tool to expedite NDNS actions at the expense of wildlife.[48]

Similarly, the MMPA—a law that generally prohibits the "take" of marine mammals in U.S. waters and on the high seas—relaxes requirements for the Armed Forces when engaging in "military readiness activit[ies]" and exempts operations that are "necessary for national defense."[49] Comparably, the MBTA—a law passed to protect wild migratory birds from overhunting and poaching—allows the Armed Forces, during the course of military readiness activities, to incidentally "take" birds protected by law.[50]

In addition, the Clean Water Act (CWA)[51] and the Clean Air Act (CAA)[52] both permit the president, "if he determines it to be in the paramount interest of the United States to do so," to put forth regulations exempting particular NDNS activities from CWA and CAA jurisdiction for one year.[53] While no president has invoked the CWA exemption,

---

[45] *Id.* § 1536(j).

[46] *Id.* § 1536(g).

[47] *Id.* § 1536(j).

[48] Willard et al., *supra* note 19, at 74; M. LYNNE CORN ET AL., CONG. RESEARCH SERV., R40787, ENDANGERED SPECIES ACT (ESA): THE EXEMPTION PROCESS 10 (2017).

[49] MMPA, 16 U.S.C. §§ 1362(18), 1371(f), 1371(a)(5) (2018). Under the MMPA, there is an exemption for actions which the Secretary of Defense concludes are "necessary for national defense"; the definition of "harassment" in the case of military readiness activities includes a heightened standard that is more difficult for environmental groups to satisfy than the general definition of "harassment"; the allotted time period for incidental take of marine mammals associated with military readiness activities is two years longer than the time period for average citizens; and when determining the "least practicable adverse impact on such species or stock" for military readiness activities, the Secretary shall take into account "personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity." *Id.* These provisions effectively prioritize NDNS over the health and well-being of marine mammals. *See Marine Mammal Protection,* NAT'L OCEANIC ATMOSPHERIC ASS'N, https://perma.cc/MDK3-RLVH (last visited May 7, 2021).

[50] Bob Stump National Defense Authorization Act for Fiscal Year 2003, Pub. L. No. 107-314, § 315(f), 116 Stat. 2458, 2510 (2002). Under the MBTA, military readiness activities include "all training and operations of the Armed Forces that relate to combat; and the adequate and realistic testing of military equipment, vehicles, weapons, and sensors for proper operation and suitability for combat use." In effect, this allows for the incidental take of birds during the aforementioned activities; *see also* Kristina Rozan, *Brief Summary of the Migratory Bird Treaty Act (MBTA)*, ANIMAL LEGAL & HISTORICAL CTR. (2014), https://perma.cc/8S8Y-H6Y6.

[51] Federal Water Pollution Control Act, 33 U.S.C. §§ 1251–1388 (2018).

[52] Clean Air Act, 42 U.S.C. §§ 7401–7671q (2018).

[53] 33 U.S.C. § 1323(a); 42 U.S.C. § 7418(b). Both the CWA and CAA give the President authority to issue regulations exempting from compliance with effluent or air quality

President Jimmy Carter invoked the CAA exemption once in 1980.[54] Moreover, additional language sprinkled throughout the CAA and its implementing regulations caters to NDNS policy by, for example, exempting the use of ozone depleting substances in NDNS operations and waiving the application of diesel and new vehicle standards to tactical vehicles.[55]

Lastly, just as with the CWA and CAA, the Resource Conservation and Recovery Act of 1976 (RCRA)[56] and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)[57] contain loopholes for the DOD.[58] RCRA allows "[t]he President [to] exempt any solid waste management facilit[ies] of any department, agency, or instrumentality in the executive branch."[59] CERCLA permits the president to issue orders pertaining to response actions, including exemption from CERCLA's statutory scheme, "as may be necessary to protect the national security interests of the United States."[60]

In summary, all major federal environmental laws contain exemptions to prevent environmental procedures from interfering with operations that purportedly advance national security and military readiness, and the exemptions have varying potentials for misuse. Those that are not reserved for genuine emergencies, but rather, aid the DOD in carrying out their day-to-day operations, are exceptionally problematic. Exemptions in the ESA, MMPA and MBTA have the broadest applicability and pose an imminent threat to vulnerable wildlife species.

B. Environmental Law Waivers Under the Illegal Immigration Reform and Immigration Responsibility Act of 1996

The DHS Secretary's broad waiver authority under the IIRIRA is another compelling example of the legal system's prioritization of NDNS.

---

standards "any weaponry, equipment, aircraft, vessels, vehicles, or other classes or categories of property, and access to such property, which are owned or operated by the Armed Forces of the United States (including the Coast Guard) or by the National Guard of any State and which are uniquely military in nature." 33 U.S.C. § 1323(a); *see* 42 U.S.C. §7412(i)(4) (Under the CAA, "[t]he President may exempt any stationary source from compliance with any standard or limitation under this section" if "it is in the national security interests of the United States to do so").

[54] Willard et al., *supra* note 19, at 69, 79; *see* Exec. Order No. 12244, 45 Fed. Reg. 66,443 (Oct. 7, 1980) (President Carter invoked his authority under 42 U.S.C. § 7418(b) to exempt every emission source located at Fort Allen, a federal facility holding Haitian and Cuban nationals, from compliance with Section 118 of the Clean Air Act).

[55] Willard et al., *supra* note 19, at 71.

[56] Resource Conservation and Recovery Act of 1976, 42 U.S.C. §§ 6901–6992k (2018) (amending Solid Waste Disposal Act, Pub. L. No. 89–272, 79 Stat. 992 (1965)).

[57] Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9601–9675 (2018).

[58] 42 U.S.C. § 6961(a); 42 U.S.C. § 9620(j).

[59] 42 U.S.C. § 6961(a).

[60] *Id.* § 9620(j).

The IIRIRA was passed in 1996, in response to growing concern over immigration of undocumented individuals.[61] As originally enacted, Section 102(b) of the IIRIRA authorized the Attorney General to deter illegal immigration in regions of high illegal entry into the U.S by taking necessary actions to install additional barriers along the southern border of the U.S.[62] To assist the Attorney General in carrying out those duties, § 102(c) permitted him or her to waive provisions of the ESA and NEPA "to the extent the Attorney General determines necessary to ensure expeditious construction of the barriers and roads."[63]

Congress then amended the IIRIRA by passing the Real ID Act of 2005,[64] which expanded the scope of federal waiver authority and created a variety of procedural barriers for citizen groups challenging DHS's actions.[65] For example, the amendment expanded the DHS Secretary's waiver authority to encompass "all legal requirements" that may interfere with expeditious construction, not merely provisions in the ESA and NEPA.[66] The amendment also significantly restricted judicial review of waiver challenges in three ways: the amendment deprived federal courts of appeals of jurisdiction, limited review to claims alleging constitutional violations, and shortened the statute of limitations to file waiver determination challenges from six years to sixty days.[67] Many legal scholars have questioned the constitutionality of § 102(c) authority, positing that waivers constitute an unauthorized delegation of legislative authority.[68]

IIRIRA waiver authority has served as a powerful tool for DHS secretaries—a tool that Michael Chertoff, the DHS Secretary under the George W. Bush Administration, invoked five times in order to construct approximately 700 miles of infrastructure in the name of national

---

[61] Deterring Illegal Immigration, 60 Fed. Reg. 7885 (Feb. 10, 1995); *see also 800,000 + Illegals Entering Annually in Late '90s*, CTR. FOR IMMIGR. STUD. (Feb. 1, 2003), https://perma.cc/42E7-LY2D ("[D]uring the 1990s, 700,000 illegal aliens on average entered each year. And that number increased to 817,000 by 1998 and to nearly one million in 1999.").

[62] Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA), Pub. L. No. 104-208, § 102(b), 110 Stat. 3009, 554–55.

[63] *Id.* at § 102(c), 110 Stat. 3009, 555.

[64] Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA), Pub. L. No. 104-208, div. C, § 102(a)–(c), as amended by the REAL ID Act of 2005, Pub. L. No. 109-13, div. B, § 101, 119 Stat. 302.

[65] *See id.* at § 102, 119 Stat. 306 (listing the waivers granted for improvements to the border).

[66] MICHAEL JOHN GARCIA, CONG. RESEARCH SERV., R43975, BARRIERS ALONG THE U.S. BORDERS: KEY AUTHORITIES AND REQUIREMENTS 22 (2016).

[67] *Id.*; *see also* Deena Mueller, *Immigration Reform's Unintended Consequence: Providing Greater Justification for Border Patrol to Waive Environmental Compliance at the U.S.-Mexico Border*, 37 WM. & MARY ENV'T L. & POL'Y REV. 785, 798 (2013) (providing an in-depth discussion on IIRIRA amendments, which have expanded the DHS Secretary's far-reaching waiver authority).

[68] GARCIA, *supra* note 66, at 22 n.121.

security.[69] Much to the dismay of environmentalists, constitutional challenges to § 102(c) waiver authority have been largely unsuccessful. District courts within the Ninth Circuit have not been responsive to plaintiffs' claims alleging separation of powers violations (e.g., nondelegation doctrine, presentment) or concerns about federalism and preemption.[70]

That said, a series of recent litigation in the Ninth Circuit Court of Appeals provides a glimmer of hope. In 2019, the DHS Secretary utilized section § 102(c) waivers to circumvent NEPA's procedural requirements—and a host of other state and federal environmental laws—when expediting construction of President Trump's border wall along the southern border of the U.S.[71] This action sparked several lawsuits, three of which made their way to the Ninth Circuit in 2019 and 2020.[72] In *Sierra Club v. Trump* and *California v. Trump*, the Ninth

---

69 NOAH GREENWALD, ET AL., CTR. FOR BIOLOGICAL DIVERSITY, A WALL IN THE WILD: THE DISASTROUS IMPACTS OF TRUMP'S BORDER WALL ON WILDLIFE 1 (2017).

70 *See* Sierra Club v. Ashcroft, No. 04CV0272-LAB (JMA), 2005 U.S. Dist. LEXIS 44244, at *15 (S.D. Cal. Dec. 13, 2005); Defenders of Wildlife v. Chertoff, 527 F. Supp. 2d 119, 121 (D.D.C. 2007); Save Our Heritage Org. v. Gonzalez, 533 F. Supp. 2d 58, 63 (D.D.C. 2008); Cty. El Paso v. Chertoff, No. EP–08–CA–196–FM, 2008 WL 4372693, at *2, 7, 10 (W.D. Tex. Aug. 29, 2008); Ctr. for Biological Diversity v. McAleenan, 404 F. Supp. 3d 218, 243 (D.D.C. 2019). Drawing upon separation of powers principles, plaintiffs in the five aforementioned cases asserted that § 102(c) waiver authority granted to the DHS Secretary constitutes an unconstitutional delegation of legislative power, and thus violates the nondelegation doctrine. *Sierra Club*, 2005 U.S. Dist. LEXIS 44244, at *13, 15; *Defenders of Wildlife*, 527 F. Supp. 2d at 121; *Save Our Heritage*, 533 F. Supp. 2d at 63; *Cty. El Paso*, 2008 WL 4372693, at *2; *Ctr. for Biological Diversity*, 404 F. Supp. 3d at 243. All five courts upheld the § 102(c) waiver authority as constitutional, noting that the scope of the legislation was narrow enough to provide DHS with an intelligible principle. *Sierra Club*, 2005 U.S. Dist. Lexis 44244, at *16, 18–22; *Defenders of Wildlife*, 527 F. Supp. 2d at 129; *Save Our Heritage*, 533 F. Supp. 2d at 64; *Cty. El Paso*, 2008 WL 4372693, at 4; *Ctr. for Biological Diversity*, 404 F. Supp. 3d at 249. Plaintiffs in *Defenders of Wildlife*, *County of El Paso* and *Center for Biological Diversity* put forth a second separation of powers argument: presentment violations. *Defenders of Wildlife*, 527 F. Supp. 2d at 124; *Cty. of El Paso*, 2008 WL 4372693, at *2; *Ctr. for Biological Diversity*, 404 F. Supp. 3d at 231. Plaintiffs argued that § 102(c) waivers constituted a line-item veto because the waiver authority gave the DHS Secretary power to repeal or amend laws passed by Congress. *Defenders of Wildlife*, 527 F. Supp. 2d at 123; *Ctr. for Biological Diversity*, 404 F. Supp. 3d at 248 n.21; *Cty. of El Paso*, 2008 WL 4372693, at *6. Both courts rejected plaintiffs' arguments on the basis that invocation of § 102(c) is not an amendment or repeal of law, but rather, is an individualized determination that a law is not applicable to an isolated action taken by the DHS Secretary. *Ctr. for Biological Diversity*, 404 F. Supp. 3d at 246 (citing *Defenders of Wildlife*, 527 F. Supp. 2d, at 124–25); *Cty. of El Paso*, 2008 WL 4372693, at *7. Lastly, plaintiffs in *County of El Paso* raised federalism and preemption arguments, asserting that the Real ID Act Amendment, which granted the DHS Secretary power to waive all legal requirements, "d[id] not contain a 'clear statement' indicating Congress's intent to preempt state or local law[s]." *Cty. of El Paso*, 2008 WL 4372693, at *8. The court found for DHS, asserting that the clear statement rule is only applicable to ambiguous statutory text, and that § 102(c) of the IIRIRA contained no ambiguity, but rather, expressly preempted state and local laws. *Id.* at *8, *10.

71 Sierra Club v. Trump, 977 F.3d 853, 873 (9th Cir. 2020); California v. Trump, 963 F.3d 926, 938–39 (9th Cir. 2020).

72 In re Border Infrastructure Env't Litig., 915 F.3d 1213, 1218 (9th Cir. 2019); Sierra Club v. Trump, 929 F.3d 670, 675 (9th Cir. 2019); California v. Trump, 963 F.3d at 938–39;

Circuit addressed whether the Trump Administration had properly invoked Emergency Construction Authority under 10 U.S.C. § 2808 and budgetary transfer authority under the Department of Defense Appropriations Act of 2019, respectively.[73]

The Ninth Circuit did not address the legality of the DHS Secretary's invocation of § 102(c) because the Real ID Act of 2005 stripped federal appellate courts of jurisdiction to hear challenges to § 102(c) waiver invocations.[74] Nevertheless, the Ninth Circuit in both *Sierra Club v. Trump* and *California v. Trump* recognized the relationship between Article III standing and the harm resulting from § 102(c) waivers.

The Ninth Circuit held that State plaintiffs[75] had Article III standing to challenge the Trump Administration's actions because California and New Mexico adequately alleged concrete and particularized environmental injuries—that border wall construction resulted in grievous harm to natural resources, endangered species, and threatened species situated near the southern border.[76] Those injuries, in part, stem from § 102(c) waivers.[77]

In *California v. Trump*, the Ninth Circuit also identified injury to the States' quasi-sovereign interests; that is, the federal government's § 102(c) waiver invocation interfered with the States' ability to enforce local and state code designed to protect public health and the environment.[78] For example, absent the § 102(c) waivers, DHS would have needed to comply with California's and New Mexico's state air and water quality standards,[79] obtain an National Pollutant Discharge Elimination System (NPDES) permit,[80] consult with the U.S. Fish and Wildlife Service to ensure that the projects would not threaten the continued existence of threatened and endangered species,[81] and comply with state-level wildlife protections including the Flat-Tailed Horned Lizard Rangewide

Sierra Club v. Trump, 977 F.3d at 873. Because IIRIRA § 102(c), as amended, grants jurisdiction only to federal district courts and the U.S. Supreme Court, the plaintiffs in these cases did not appeal any waiver determination challenges to the Ninth Circuit. Instead they argued that the federal entities engaged in *ultra vires* action (that is, operating outside the bounds of their statutory authority) and violated various constitutional principles such as the Appropriations Clause. *Border Infrastructure*, 915 F.3d at 1220–22.

[73] Sierra Club v. Trump, 977 F.3d at 879; California v. Trump, 963 F.3d at 931–32.

[74] Mueller, *supra* note 67, at 798.

[75] State plaintiffs in *Sierra Club v. Trump* include California, Colorado, Hawaii, Maryland, New Mexico, New York, Oregon, Virginia, and Wisconsin. 977 F.3d at 853. State plaintiffs in *California v. Trump* include California, Colorado, Connecticut, Delaware, Hawaii, Illinois, Maine, Maryland, Massachusetts, Minnesota, New Jersey, Nevada, New Mexico, New York, Oregon, Rhode Island, Vermont, Virginia, and Wisconsin. 963 F.3d at 926.

[76] Sierra Club v. Trump, 977 F.3d at 866–69; California v. Trump, 963 F.3d at 936–39.

[77] *See* California v. Trump, 963 F.3d at 936–40 (holding that plaintiffs alleged sufficient environmental harms by Federal Defendants pursuant to defendant's authority granted by § 102 waivers).

[78] *Id.* at 938–40.

[79] *Id.* at 938–39.

[80] *Id.* at 938.

[81] *Id.* at 939.

Management Strategy,[82] the Mexican Wolf Recovery Plan,[83] and Mexico's Wildlife Corridors Act.[84]

In recognizing that Sierra Club had standing, the Ninth Circuit set important precedent that § 102(c) waivers can and do create legally cognizable harm to the environment and quasi-sovereign bodies.[85] C*alifornia v. Trump* laid the foundation for plaintiffs to successfully challenge § 102(c) waivers on the basis that waivers violate the principle of federalism enshrined in the Tenth Amendment.[86]

C. The Judiciary's Approach to Resolving National Environmental Policy Act Lawsuits Challenging Military Operations

Looking for a solution to NDNS-induced environmental degradation, many litigators have turned to NEPA, among other environmental laws. Generally, NEPA lawsuits are an ineffective strategy to slow or stop the DOD or DHS from taking actions that have undesirable consequences on ecosystems.[87] In a sea of case law, one pattern holds true: military interests supersede environmental conservation. Legal scholars have even coined the term "national defense exceptionalism" to describe the judiciary's preferential treatment of NDNS as a paramount policy interest.[88] To illustrate, this discussion focuses on two aspects of NEPA case law: 1) where courts have declined to enjoin military departments from engaging in activities that have harmful impacts on the environment, and 2) where courts found no procedural violations of NEPA resulting from military training, construction or modification to military facilities, nuclear weapons storage, or use of mid-frequency active sonar (MFA sonar).[89]

1. Injunction Battles: Weighing Military Interests Against Environmental Preservation

Today, a court will exercise its discretion to grant a preliminary injunction after weighing four factors,[90] two of which are particularly

---

[82] *Id.*; FLAT-TAILED HORNED LIZARD INTERAGENCY COORDINATING COMMITTEE, FLAT-TAILED HORNED LIZARD MANAGEMENT STRATEGY 2003 REVISION (2003).

[83] California v. Trump, 963 F.3d at 939; U.S. FISH AND WILDLIFE SERV., MEXICAN WOLF RECOVERY PLAN: FIRST REVISION (2017).

[84] California v. Trump, 963 F.3d at 939; S.B. 228, 54th Leg., 1st Sess. (N.M. 2019).

[85] Sierra Club v. Trump, 977 F.3d 853, 865–66 (9th Cir. 2020).

[86] California v. Trump, 963 F.3d at 938.

[87] *See* discussion *infra* Part II.C.1–2.

[88] Charles J. Gartland, *At War and Peace with the National Environmental Policy Act: When Political Questions and the Environment Collide*, 68 AIR FORCE L. REV. 27, 39 (2012).

[89] Due to the sheer amount of litigation between NDNS actors and environmentalists, this Section is primarily limited to cases from the Supreme Court of the U.S. (U.S. Supreme Court), the Ninth Circuit Court of Appeals (Ninth Circuit) and U.S. district courts that reside in the Ninth Circuit.

[90] *See, e.g.*, Winter v. Nat. Res. Def. Council, Inc., 555 U.S. 7, 20, 24–26 (2008) (stating that plaintiffs seeking a preliminary injunction must demonstrate that they are likely to

important as they demonstrate courts' prioritization of NDNS interests.[91] Unfortunately, environmental groups seeking to prevail on these two factors lose more often than they win.[92]

Unless environmental harm is severe and any interference with military operations is minimal, courts have expressed a reluctance to enjoin the DOD's training activities, storage of chemical weapons, and use of sonar technology.[93] The U.S. Supreme Court has accorded considerable deference to judgements of high-ranking military officials,[94] and has repeatedly expressed that nothing is more central to the public interest than national security.[95]

One year after President Nixon signed NEPA into law, the first NEPA lawsuit against a military defendant made its way to the Tenth Circuit Court of Appeals and laid the foundation for the judiciary's unwillingness to interfere with NDNS affairs.[96] In *McQueary v. Laird*, a group of residents living close to a military arsenal built to produce chemical and biological warfare agents filed suit against the Army and DOD.[97] Plaintiffs alleged that NEPA created a substantive right to bring an environmental challenge against a potentially hazardous arsenal.[98] The court concluded that matters of national security were wholly committed to the discretion of other branches of government, and, as such, the Tenth Circuit was not the proper forum to consider the residents' NEPA concerns.[99] In so holding, the court emphasized the troubles that accompany public disclosure of operations at military facilities, including potential threats to national security, and acknowledged the federal government's wide-reaching discretion and

succeed on the merits, that they are likely to suffer irreparable harm in the absence of injunctive relief, that the balance of equities tips in their favor, and that an injunction is in the public interest).

91 *See, e.g.*, *id.*

92 *See, e.g.*, Comm. For Nuclear Responsibility, Inc. v. Seaborg, 463 F.2d 796, 799 (D.C.C. 1971) (noting that even though injunctive relief will be denied, "plaintiffs may yet prevail in their claim that the [Atomic Energy Commission] failed to comply with NEPA in approving the Cannikin test").

93 *E.g.*, *compare Winter*, 555 U.S. at 20, 23 (2008) (characterizing the degree of interference with military readiness operations as substantial, while characterizing environmental harm to marine mammals as speculative—occurring to an unknown number of marine mammals), *with* Makua v. Rumsfeld, 163 F. Supp. 2d 1202, 1221 (D. Haw. 2001) (noting that the balance of equities tipped in the environmental groups' favor due to extraordinary and concrete harm to natural and cultural resources, in contrast to the minimal degree of interference in NDNS operations posed by the live-fire training program's delay).

94 *See, e.g.*, *Winter*, 555 U.S. at 24 (2008) (asserting that complex and professional military judgements of senior officers should receive significant deference from courts).

95 *E.g.*, Haig v. Agee, 453 U.S. 280, 307 (1981) (quoting Aptheker v. Secretary of State, 378 U.S. 500, 509 (1964)).

96 Council on Env't Quality, *Welcome, NEPA.GOV,* https://perma.cc/JEZ9-EJNX (last visited May 28, 2021); McQueary v. Laird, 449 F.2d 608, 612 (10th Cir. 1971).

97 *McQueary*, 449 F.2d at 609.

98 *Id.* at 612.

99 *Id.*

control with respect to internal management and operation of NDNS establishments.[100]

The U.S. Supreme Court has adopted a similar approach, placing NDNS interests on an elevated pedestal—one that is nearly untouchable by challengers. In *Haig v. Agee*,[101] the court asserted, "[i]t is 'obvious and unarguable' that no governmental interest is more compelling than the security of the Nation."[102] Prior case law reflects this highly subjective notion.[103] In *Committee for Nuclear Responsibility, Inc. v. Schlesigner*,[104] the Supreme Court, without opinion, affirmed the decision of the D.C. Circuit which cast aside NEPA in an attempt to prevent potential harm to national security and foreign policy.[105] In *Seaborg*, the D.C. Circuit questioned the legality of the Atomic Energy Commission's proposed nuclear detonation tests.[106] After acknowledging that plaintiffs' NEPA claim had considerable merit, the court nevertheless allowed the detonation tests to go forward.[107] The D.C. Circuit deferred strongly to the government's concerns: that delaying the detonation tests *could* result in disruptions costing the Commission millions of dollars, *could* reduce the efficacy of the detonation tests, and *could* jeopardize Strategic Arms Limitation talks.[108] *Seaborg* demonstrated the courts' willingness to overlook procedural errors when the risk of compromising national security or military preparedness is, in their view, too great.

The U.S. Supreme Court reiterated the importance of NDNS in *Winter v. Natural Resources Defense Council, Inc.,*[109] setting harmful precedent for environmental organizations and practitioners seeking to limit the use of MFA sonar in Navy training activities.[110] The Court

---

100 *Id.*

101 453 U.S. 280 (1981).

102 *Id.* at 307 (quoting Aptheker v. Secretary of State, 378 U.S. 500, 509 (1964)).

103 *See, e.g.*, Comm. For Nuclear Responsibility, Inc. v. Seaborg, 463 F.2d 796, 798 (D.C. Cir. 1971).

104 404 U.S. 917 (1971).

105 *Id.* In his dissent, Justice Douglas pointed to defects in the Atomic Energy Commission's Environmental Impact Statement and echoed language from a previous case: "if the decision [under NEPA] was reached [by AEC] procedurally without individualized consideration and balancing of environmental factors—conducted fully and in good faith—it is the responsibility of the courts to reverse." *Id.* at 918.

106 *Seaborg,* 463 F.2d at 797.

107 *Id.* at 799.

108 *Id.* at 798 ("While the Government's assertion of monetary damage from an injunction is not minimal, it does not weigh as heavily with us as its assertions of potential harm to national security and foreign policy—assertions which we obviously cannot appraise.").

109 *See* 555 U.S. 7, 24 (2008) ("In this case, the [lower courts] significantly understated the burden the preliminary injunction would impose on the Navy's ability to conduct realistic training exercises, and the injunction's consequent adverse impact on the public interest and national defense.").

110 With the rise of silent submarines, submersibles and underwater mines, MFA sonar remains an important component of the Navy's ability to detect, track and deter underwater hazards. However, naval testing and training activities which utilize MFA sonar are thought by the scientific community to cause harm to marine mammals—both physically and behaviorally. Locations with high degrees of MFA sonar testing have been associated

plainly and unequivocally asserted that the Navy's compelling interest in conducting effective and "realistic training" carries more weight than possibility of "harm to an unknown number of the marine mammals that [the plaintiffs] study and observe."[111] The Court further held that interfering with critical naval operations would run contrary to the public interest.[112] Chief Justice Roberts reasoned that the use of technology such as MFA sonar involves complex and professional military judgments of senior officers, to which the judiciary accords significant deference.[113] The Court paid little heed to the plight of marine mammals, characterizing the well-established association between use of MFA sonar and mass-stranding events of beaked whales as a speculative harm that is possible but not certain to occur.[114] The Court made clear, however, that even if environmental plaintiffs could prove irreparable injury to marine mammals, the policy implications of judicial intervention in military affairs are too great to justify injunctive relief.[115]

A recent decision from the District Court for the Western District of Washington illustrates strict adherence to the approach in *Winter*. Plaintiffs in *Citizens of the Ebey's Reserve for a Healthy, Safe & Peaceful Environment v. U.S. Department of Navy*[116] filed a NEPA claim over noise and health effects resulting from the Navy's replacement of its primary electronic attack aircraft with a newer model at a naval air station in Whidbey Island, Washington.[117] The court denied plaintiffs injunctive relief in part because the Navy's military preparedness benefited the public interest, and because the station's Commanding Officer and Admiral submitted declarations explaining the various ways in which an injunction would adversely impact airfield operations at the Station, tipping the balancing of equities in the Navy's favor.[118] In addition, the court held that plaintiffs had no likelihood of success on the merits because even though the plaintiffs' experts used more detailed methods in their noise studies and health assessments, the court was in no position to second-guess the Navy's chosen method.[119]

---

with mass stranding or die-off events. *See generally* MEEGAN BRIANNA CORCORAN, U.S. NAVY SONAR AND MARINE MAMMALS: A RECOMMENDATION OF ADDITIONAL MARINE MAMMAL MITIGATION MEASURES IN THE NORTHWEST TESTING AND TRAINING (NWTT) STUDY AREA 8–10, 12–13 (2014).

[111] *Winter*, 555 U.S. at 24, 26.

[112] *Id.* at 26.

[113] *Id.* at 24.

[114] *Id.* at 16, 26, 33.

[115] *Id.* at 23.

[116] 122 F. Supp. 3d 1068 (W.D Wash. 2015).

[117] *Id.* at 1072, 1075.

[118] *Id.* at 1084.

[119] *Id.* at 1079. The court also found it pertinent that the contrasting methodologies yielded somewhat-similar results. *See also* Natural Resources Defense Council, Inc. v. Gutierrez, No. C-07-04771 EDL, 2008 WL 360852, at *25 (N.D. Cal Feb. 6, 2008) ("Where, as here, qualified experts on both sides reach different conclusions, the Court defers to agency experts.").

Not all precedent considers NDNS as the end-all-be-all; district courts in California have taken a different approach when determining whether an injunction should be issued. A good example is *Natural Resources Defense Council v. Gutierrez*,[120] in which the District Court for the Northern District of California fully acknowledged both the compelling need to promote national security and the critical need to safeguard the health of marine mammals and marine environments generally.[121] Instead of denying environmental plaintiffs injunctive relief entirely, the *Gutierrez* court carefully crafted a narrow injunction to reduce use of low frequency-active sonar (LFA sonar) in certain parts of the ocean that provide critical habitat, while still allowing LFA use in a broad array of areas.[122]

In other circumstances, courts have prioritized environmental concerns over alleged harm to military interests.[123] That said, injunctions that preclude military operations are limited to unique situations in which the environmental consequences are severe and the degree of interference with NDNS activities is minimal.[124] In *Makua v. Rumsfeld*, for example, the court briefly enjoined implementation of a live-fire training program at a military establishment in Oahu, due to risk of significant harm to endangered species, cultural resources, Native Hawaiian rights, and the Makua Valley.[125] The Court emphasized that unlike the environment, the Army suffered no irreparable injury from a minor delay in implementing the proposed live-fire training, given that the Army was not currently occupying the training area and the site had even been vacant for three years due to a series of wildfires in the area.[126] In summary, courts have only sparingly granted injunctions to environmental groups seeking to slow or stop the military from engaging in environmentally harmful activities.

---

[120] *Gutierrez*, 2008 WL 360852.

[121] *Id.* at *31.

[122] *Id.* at *32. *See also* Natural Resources Defense Council, Inc. v. Evans, 279 F. Supp. 2d 1129, 1138 (N.D. Cal. 2003) (enjoining the Navy's use of MFA sonar, but only in ecologically sensitive areas, to balance the competing—yet equally important—interests of military preparedness and marine species conservation).

[123] *See, e.g.*, Makua v. Rumsfeld, 163 F. Supp. 2d 1202, 1221 (D. Haw. 2001) (enjoining Army live fire training due to a substantial risk of harm to natural and cultural resources).

[124] *See generally id.* (describing the lack of evidence supporting the Army's claims that an injunction would "significantly impair the ability of the Army to defend the nation," while highlighting the environmental impact, including, for example, the risk to thirty endangered species).

[125] *Id.*

[126] *Id.* at 1205, 1221–22. *See* Friends of the Earth v. Hall, 693 F. Supp. 904, 915, 950 (W.D. Wash. 1988) (enjoining the Navy's dredge and fill activities in violation of NEPA and the CWA because in the court's view, there was a clear risk of substantial environmental injury to the nation's waters, which weighed heavier than any delay in the Navy's project); *see also* People of Enewetak v. Laird, 353 F. Supp. 811, 811 (D. Haw. 1973) (enjoining core drilling and seismic studies associated with a larger nuclear testing project because military defendants did not adequately demonstrate that irreparable injury would result from the project's temporary delay).

2. Difficulties Establishing Procedural Violations of the National Environmental Policy Act

Environmental litigators not only have struggled to obtain preliminary injunctions but also have been largely unsuccessful in establishing procedural violations of NEPA. Courts rarely conclude that the Navy, Army, or Air Force failed to comply with NEPA requirements while conducting military training exercises, constructing or modifying military facilities, storing nuclear weapons, or utilizing MFA sonar. The judiciary is seemingly satisfied when the Armed Forces have done the bare minimum required to satisfy NEPA, even if such work includes some deficiencies and inconsistencies.[127] Moreover, conclusions of military experts receive substantial deference, regardless of whether those experts use the most reliable and accurate methods of assessment.[128] For these reasons, environmental litigators have faced widespread difficulty in establishing NEPA violations under an arbitrary and capricious standard of review.

The Ninth Circuit has discarded nearly all NEPA challenges involving environmental impacts of construction or modification to military facilities and changes to military training programs. Most recently, the Ninth Circuit in *Tinian Women Association v. U.S. Department of Navy*[129] viewed two Navy programs with overlapping goals—the relocation of 8,000 troops to a training base in Guam, and the proposed construction of additional training complexes on nearby islands—as separate and distinct in their utility and purpose.[130] As a

---

[127] *See, e.g.*, National Wildlife Federation v. Adams, 629 F.2d 587, 591–94 (9th Cir. 1980) (finding no merit in plaintiffs' challenge to the adequacy of a draft EIS produced by federal defendants for an 8.14 mile section of highway in connection with a submarine base). Plaintiffs in *National Wildlife Federation* asserted that the draft EIS grossly underestimated the impact of proposed construction on nearby wetlands and agricultural lands, and if the true extent of environmental risk was reflected in the draft EIS, agency consultations and public comments would have produced a different outcome. *Id.* at 593. Plaintiffs also argued that defendants failed to consider at least three preferable alternatives to the proposed highway construction segments. *Id.* at 591. The court found no merit in plaintiffs' arguments, noting that the draft EIS was not so "grossly inadequate" as to frustrate the opportunity for public comment, and that the alternatives that environmental plaintiff's proposed had "fatal deficiencies." *Id.* at 592–93.

[128] *See, e.g.*, Winter v. Natural Resources Defense Council Inc., No. 07-1239, slip. op. at 24 (U.S. Nov. 12, 2008) (holding that military experts making complex and professional military judgments should receive great deference from the court); Ground Zero Ctr. for Non-Violent Action v. U.S. Dep't Navy, 383 F.3d 1082, 1090 (9th Cir. 2004) (holding that despite plaintiff's expert's conclusion that the Navy's risk calculations were "unbelievable," the Navy's reliance on their own expert's study was reasonable because "[a]gencies are normally entitled to rely upon the reasonable views of their experts over the views of other experts"); Citizens of the Ebey's Reserve for a Healthy, Safe and Peaceful Env't v. U.S. Dept. of Navy, 122 F. Supp. 3d 1068, 1079 (W.D Wash. 2015) (holding that even though the plaintiff's experts used more detailed methods in their noise studies and health assessments, it was inappropriate to second-guess the Navy's chosen method, especially since the contrasting methodologies yielded somewhat-similar results).

[129] 976 F.3d 832 (9th Cir. 2020).

[130] *Id.* at 837–38.

result, the court did not require the consideration of both programs in a single, comprehensive Environmental Assessment.[131] The court also held that the Navy's deferral of cumulative impacts to a future Environmental Impact Statement (EIS) did not violate NEPA because the Navy's notice of intent to prepare an EIS served as an "implied[] promise[]" to consider cumulative impacts in the future.[132] In similar challenges to military construction projects and training operations, the Ninth Circuit has not been sympathetic to arguments questioning the validity of Findings of No Significant Impact (FONSIs) prepared by military components.[133] Moreover, the Ninth Circuit tossed out several lawsuits alleging that the EIS prepared by the Armed Forces contained procedural deficiencies—such as failure to consider a range of reasonable alternatives.[134]

In addition, claims alleging that the military failed to consider in their NEPA analyses the environmental impact of an accidental detonation of stored nuclear and conventional weapons have not been successful at the district court or Supreme Court level.[135] The Freedom of Information Act (FOIA)[136] exempts from disclosure confidential and

[131] *Id.*; *see also* Nat. Res. Def. Council, Inc. v. U.S. Dep't Navy, No. CV-01-07781 CAS(RZX), 2002 WL 32095131, at *13–17 (C.D. Cal. Sept. 17, 2002) (holding that the Navy did not act arbitrarily and capriciously by treating various sea tests in the Navy's LWAD sonar program as individual actions, rather than considering all sea tests in a single programmatic EA or EIS). The court in *NRDC v. U.S. Dep't Navy* rejected the plaintiff's premise that the LWAD tests were interconnected and had a cumulative effect, subjecting the LWAD program as a whole to NEPA review. *Id.* at 16.

[132] *Tinian Women Association*, 976 F.3d at 838–39.

[133] *See, e.g.*, San Diego Chapter of the Surfrider Found. v. Dalton, 989 F. Supp. 1309, 1325 (S.D. Cal. 1998), *aff'd*, 196 F.3d 1057 (1999) (concluding that the Navy's refusal to prepare an EIS for a proposed military housing construction project was not arbitrary and capricious because the Navy reasonably considered CEQ's context and intensity factors); Westside Prop. Owners v. Schlesinger, 597 F.2d 1214, 1225 (9th Cir. 1979) (rejecting environmental plaintiffs' challenge to the Air Force's refusal to prepare an EIS for formalization of a German-American training program at a U.S. Air Force base). The *Westside Property Owners* court concluded that an EIS was unnecessary because formalizing the training program did not change operations at the base in such a way that would alter the quality of the human environment. *Id.* at 1224.

[134] *See, e.g.*, Westside Prop. Owners, 597 F.2d. at 1217 (rejecting plaintiffs' challenge to the adequacy of an Air Force EIS prepared for "the 'beddown' of [an] F-15" jet fighter plane at Luke Air Force Base). According to plaintiffs in *Westside Property Owners*, the EIS did not consider the cumulative impact of introducing the F-15 fighter jet together with preexisting environmental effects at the Luke Base, the EIS was merely a post-decision rationalization because the initial plans for the beddown of the F-15 were made before preparation of an EIS, and the alternatives analysis was deficient because the analysis did not consider the cumulative effect of the Luke Base, thereby minimizing the environmental impact of the proposed project in comparison to other alternatives. *Id.* at 1217–18; *see also, e.g.*, *San Diego Chapter of the Surfrider Found.,* 989 F. Supp. at 1327–29, *aff'd*, 196 F.3d 1057 (rejecting plaintiffs' argument that the Navy failed to consider viable alternatives to the proposed project, reasoning that quantity of alternatives and depth of analyses was sufficient for the purposes of NEPA, and that courts must defer to plausible agency determinations about the purpose and need of a proposed project).

[135] Weinberger v. Catholic Action of Hawaii, 454 U.S. 139, 146 (1981); Laine v. Weinberger, 541 F. Supp. 599, 604 (C.D. Cal. 1982).

[136] Freedom of Information Act, 5 U.S.C. § 552 (2018).

sensitive information relating to national defense and foreign policy.[137] As a result, the DOD is often exempt from producing an EIS containing classified intelligence.

For example, the Supreme Court in *Weinberger v. Catholic Action of Hawaii/Peace Educ. Project* concluded that the Navy was exempt from producing an EIS for detonation risks because relevant information was not disclosable.[138] Another roadblock is that CEQ regulations only require agencies to consider "reasonably foreseeable" environmental effects.[139] The Ninth Circuit does not view accidental explosions of nuclear or conventional weapons as a "reasonably foreseeable" effect, despite the fact that there have been thirty-two nuclear weapon accidents since 1950.[140]

Lastly, the Navy's use of MFA and LFA sonar technology sparked a cascade of lawsuits, but courts have generally not been receptive to claims alleging violations of NEPA. In *Gutierrez*, the court held that the Navy's NEPA analysis was not arbitrary and capricious, rejecting plaintiffs' assertions that the Navy failed to consider all reasonable alternatives to the Navy's peacetime use of LFA sonar, inappropriately rejected certain mitigation measures, and failed to consider all reasonably foreseeable impacts of LFA sonar.[141] Similarly, in *Natural Resources Defense Council, Inc. v. Pritzker*,[142] the Navy's NEPA analysis was upheld as reasonable. The court noted that despite the Navy's use of outdated marine mammal data, the Navy adequately considered reasonable alternatives and took a hard look at the impacts of sonar on sea turtles and fish.[143]

In summary, the current legal framework is shaped in a way that provides NDNS agencies with extra latitude to evade compliance with otherwise applicable environmental laws and turning to the courts for recourse has not proven an effective solution. Lawmakers and judges seemingly believe that the substantive and procedural requirements in environmental laws would unduly obstruct the mission of NDNS agencies to secure a nation free from war, terrorism, corruption, and destruction. As a result, existing precedent does not favor environmental litigators seeking injunctions or those seeking declaratory relief that the Armed Forces violated NEPA procedure.

---

137 *Id.* §§ 552(b)(1)(A), 552(b)(3) (2018).

138 *Weinberger*, 454 U.S. at 145–46; *see also Laine*, 541 F. Supp. at 601, 604 (demonstrating strict adherence to the Supreme Court's approach in *Catholic Action of Hawaii/Peace Educ. Project*, despite expressing concern over the hazards of nuclear weapons storage).

139 40 C.F.R. §§ 1502.16, 1508.8. NEPA requires agencies to discuss "any adverse environmental effects" which are "reasonably foreseeable and have a reasonably close causal relationship to the proposed action." Update to the Regulations Implementing the Procedural Provisions of NEPA, 85 Fed. Reg. 43,304, 43,331, 43,343 (July 16, 2020) (to be codified at 40 C.F.R. pts. 1500–08, 1515–18).

140 *Ground Zero Ctr. for Non-Violent Action*, 383 F.3d at 1089–92; Alex Shephard, *Here's a List of Every Time Someone Lost Control of Their Nukes*, BUS. INSIDER (May 23, 2013), https://perma.cc/8TJW-6MLA.

141 *Gutierrez,* No. C-07-04771 EDL, 2008 WL 360852, at *21–25 (N.D. Cal. Feb. 6, 2008).

142 62 F. Supp. 3d 969 (N.D. Cal 2014).

143 *Id.* at 1014–20.

But one question remains: if NDNS agencies are destroying Planet Earth in pursuit of a nation free from war and terrorism, are they actually protecting the people? Perhaps society's biggest threat is not a foreign submarine invasion, or individuals entering the U.S. border illegally, but rather, the environmental catastrophes occurring on our own soil. By failing to take aggressive action to curb environmental impacts of NDNS operations, the U.S. might just be securing its own fate—and it is a disastrous one.

III. ENVIRONMENTAL CONSEQUENCES OF THE CURRENT FRAMEWORK

By bending the rules in the name of "national security" and failing to hold DOD and DHS accountable for their actions, lawmakers and judges are exacerbating the scale and magnitude of NDNS-induced environmental destruction.

> Throughout almost half a century of Cold War we polluted the water and air, made noise, defaced the landscape, and generated millions of tons of hazardous and radioactive wastes, all in the name of national security. Early on, we acted at least partly out of ignorance of the environmental risks. More recently, we simply disregarded those risks, assuming that it would be impossible to maintain a strong defense if we had to worry about protecting the environment.[144]

As noted above, the ignorant disregard for NDNS-induced environmental harm is deeply troubling. The DOD is a leading contributor to climate change and a monumental polluter with hundreds of military bases qualifying as Superfund sites.[145] Further, the DOD is partly responsible for wide-spread injury to wildlife resulting from the Department's use of sonar technology and militarized aviation, as well as the Department's degradation of natural resources and wild lands.[146] Similarly, DHS's recent actions that purport to further national security—such as the construction of Trump's border wall and excessive use of tear gas in connection with Black Lives Matter protests in Portland, Oregon—have polluted natural resources and harmed wildlife.[147]

---

144 McCall Baugh, *An Unfulfilled Promise: How National Security Deference Erodes Environmental Justice*, 8 GOLDEN GATE U. ENV'T L.J. 81, 92 (2015) (quoting STEPHAN DYCUS, NATIONAL DEFENSE AND THE ENVIRONMENT xiii (1996)).

145 CRAWFORD, *supra* note 16, at 2. *See also* Hamilton, *supra* note 7, at 224.

146 Michael J. Lawrence et al., *The Effects of Modern War and Military Activities on Biodiversity and the Environment*, 23 ENV'T REVS. 443, 444–45, 447, 449–51 (2015).

147 *See generally* GREENWALD ET AL., *supra* note 69 (discussing the impact of the Trump administration's border wall project and its impact on wildlife); *see also* Complaint for Declaratory and Injunctive Relief at 24, Northwest Center for Alternative Pesticides v. U.S. Dept. of Homeland Security, No. 3:20-cv-1816 (filed Oct. 20, 2020) (claiming that DHS violated NEPA by failing to notify the public of harms that accompany excessive use of tear gas).

A. The Impact of the Department of Defense's Military Operations

Raising and maintaining a military is a multi-faceted endeavor, with a host of environmental consequences.[148] For example, constructing and maintaining military infrastructure and equipment that support the Armed Forces, such as training bases, barracks, airfields, and port installations, have generally resulted in habitat loss and fragmentation, soil erosion, and water contamination.[149] In addition, military branches utilize technology, machinery, and weaponry which pose unique threats to wildlife near military installations.[150] For example, sonar technology leads to ear hemorrhaging and tissue damage in marine mammals and interferes with their natural behavioral patterns, inducing beach stranding and large mortality events.[151] Loud militarized aircrafts also impact the sensitive auditory systems of many wildlife species and strike thousands of migratory birds annually.[152] Between 1985 and 1998, the Air Force reported an average of 2,700 aviation-related bird strikes each year, resulting in an average cost of $35 million U.S. dollars annually to repair and replace aircrafts.[153] The use of armored vehicles, which can weigh up to sixty metric tons, is equally troubling: scientists have documented drastic alterations to soil chemistry and structure, vegetation growth, and biodiversity.[154]

Contamination is another cause for concern. The U.S. military is infamous for failing to properly treat and dispose of hazardous substances at their facilities, leaving behind a toxic wasteland when bases close.[155] As a result, unsafe levels of metals, solvents, corrosives, fuel, and oil enter the soil and make their way to neighboring water bodies—often without legal repercussions.[156] For example, thousands of waterfowl have died from drinking water from contaminated reservoirs on army bases, and nearby communities—many of which are low-income and composed of racial and ethnic minorities—face exposure to a plethora of toxins.[157] The Bayview Hunters Point Community in San Francisco clearly illustrates the issue of military contamination. Members of the community, who live in close proximity to a retired naval base, have displayed higher rates of asthma, asthma hospitalizations, cancer, infant mortality, and low birth weight, in comparison to other parts of San Francisco.[158]

---

[148] *See* Lawrence et al., *supra* note 146, at 444–46, 448–51 (discussing the environmental degradation caused by direct armed conflict, terrestrial conflict, naval operations, military contamination, and military training—including both training infrastructure and the training operations themselves).

[149] *Id.* at 448.

[150] *Id.* at 449–50.

[151] CORCORAN, *supra* note 110, at 11–13.

[152] Lawrence et al., *supra* note 146, at 444, 450.

[153] *Id.* at 450.

[154] *Id.*

[155] *Id.* at 448. *See also* Hamilton, *supra* note 7, at 224.

[156] Lawrence et al., *supra* note 146, at 448.

[157] *Id.* at 451; Baugh, *supra* note 144, at 81–82.

[158] Baugh, *supra* note 144, at 82 n.11.

Additionally, the link between NDNS and climate change is stronger than one might assume. Military activities, in general, are quite fossil-fuel intensive.[159] Annual carbon dioxide emissions from the U.S. military alone exceed that of entire industrialized nations, including, for example, Peru and Sweden.[160] The DOD is the largest consumer of energy and the largest institutional consumer of petroleum in the U.S.[161] Between the fiscal years of 1975 and 2018, the DOD produced an estimated 3,685 million metric tons of carbon dioxide equivalent.[162] In contrast, the State of Oregon emitted 39.6 million metric tons of carbon dioxide equivalent in 2018,[163] and if Oregon had emitted that same amount every year between 1975 and 2018, then the State would have produced a total of 1,742.4 million metric tons of carbon dioxide equivalent in that time period—still 1,942.6 million less than the DOD.

B. The Impact of the Department of Homeland Security's Programs That Purport to Further National Security

Aside from traditional military operations, the DHS has engaged in an array of environmentally harmful activities that, in their view, furthers "national security." As mentioned previously, DHS Secretaries have long relied on § 102(c) waiver authority under the IIRIRA to construct hundreds of miles of border security infrastructure.[164] Most recently, President Trump's attempt to secure the southern border of the U.S. through means of a wall received great backlash from environmental activists.[165] Before leaving office, the Administration worked with DHS to successfully construct fifteen miles of primary barrier where no barricades existed before and 350 miles of secondary barrier and some replacement structures.[166] As of October 2020, 378 additional miles of barrier were either under construction or in the preconstruction phase.[167]

President Trump's border wall, as initially proposed, would occur in "one of the most biologically rich areas in North America," with more than

---

159 Niall McCarthy, *Report: The U.S. Military Emits More CO2 Than Many Industrialized Nations [Infographic]*, FORBES (Jun. 13, 2019), https://perma.cc/8SS4-7Z44.

160 *Id.*

161 *Id.*

162 CRAWFORD, *supra* note 16, at 2.

163 *Table 1: State Energy-Related Carbon Dioxide Emissions by Year, Unadjusted (1990-2018)*, U.S. ENERGY INFO. ADMIN. (Mar. 2, 2021), https://perma.cc/T2SD-DJMY.

164 GREENWALD ET AL., *supra* note 69, at 1. During the George W. Bush administration, construction of border along the southern U.S. border increased substantially. *Id.* at 3. Congress passed the "Secure Fence Act," which originally called for more than 800 miles of border wall construction. *Id.* As a result of the Act, DHS "installed 353 miles of primary border wall ('pedestrian fencing'), as well as 36 miles of secondary border walls and 14 miles of tertiary border walls." *Id.* Existing studies demonstrate that many species have been adversely impacted by this construction. *Id.*

165 *Id.* at 1.

166 Lucy Rodgers & Dominic Bailey, *Trump Wall: How Much Has He Actually Built?*, BBC (Oct. 31, 2020), https://perma.cc/77Z3-F6QM.

167 *Id.*

700 species that pass through during their annual migrations.[168] Dividing an interconnected ecosystem into two segments, separated by a 2,000-mile long, 55-foot high wall, would inhibit the movement and migration patterns of many wild species, blocking genetic exchange and accelerating the species' vulnerability to extinction.[169] Experts estimated that the proposed border wall could degrade approximately 2,134,792 acres of critical habitat that occur within fifty miles of the southern border, potentially impacting ninety-three species that are listed as threatened, endangered, or candidate species under the ESA.[170] In the past, DHS secretaries have invoked § 102(c) waiver authority to expedite border construction projects similar to that of President Trump's, circumventing a host of state and federal environmental laws enacted to protect wildlife and natural resources.[171]

Another recent example of an environmentally destructive activity that DHS engaged in to purportedly establish peace, order, and security is the agency's extensive use of tear gas and other chemical munitions on protestors.[172] In October 2020, an array of environmental and civil rights groups filed suit against DHS, challenging the agency's excessive use of tear gas in connection with a broader operation to control protesters associated with the Black Lives Matter movement in Portland, Oregon.[173] Plaintiffs' NEPA claim alleges that the federal government failed to inform the public about the vast amount of environmental and human health impacts of "Operation Diligent Valor," the coined term for the mission.[174] According to plaintiffs, visible amounts of chemical residue have collected on Portland's streets, sidewalks, bioswales, and stormwater systems, which eventually will flow into the Willamette River—an essential harbor for ESA listed species.[175] Such residue, plaintiffs assert, likely contains toxins including total and dissolved metals, hexavalent chromium, perchlorate, chloride, cyanide, and semi-volatile organic compounds.[176]

Such chemicals are believed to cause cancer, organ damage, breathing difficulties, allergy/asthma symptoms, serious eye damage, skin and eye irritation, reproductive health issues, rapid suffocation, and even death in humans.[177] Aquatic species, as well as animals higher up the food chain that consume aquatic species, suffer a similar fate upon

[168] GREENWALD ET AL., *supra* note 69, at 2.

[169] *Id.* at 1, 5.

[170] *Id.* at 1, 2. Some of these include the jaguar, ocelot, pygmy owl, and quino checkerspot butterfly. *Id.* at 13–16.

[171] *Id.* at 1.

[172] Complaint for Declaratory and Injunctive Relief, *supra* note 147, at 2–3.

[173] *Id.*

[174] *Id.* at 5.

[175] *Id.* at 4.

[176] *Id.* at 18–19.

[177] *Id.* at 16.

exposure.[178] The chemicals in tear gas and other munitions[179] severely inhibit species' growth, reproduction, and survival, which, in combination with other threats such as habitat degradation and climate change, is a recipe for extinction acceleration.[180]

Operation Diligent Valor, as well as construction of President Trump's border wall, have threatened sensitive ecosystems by harming wildlife, interfering with normal patterns of wildlife migration and movement, polluting water resources, and permanently altering natural landscapes.[181] Courts and private citizens should hold the DHS accountable for their broad use of national security as a justification to take actions that have tangible consequences on ecosystems and local communities. Finding a balance between environmental preservation and programs that purport to advance national security and public safety, is critically important for both human and ecosystems health.

IV. A PATH FORWARD: BUDGET REFORM

In the face of rife environmental degradation, NDNS agencies and members of Congress need to improve their efforts to reconcile the seemingly incompatible interests of NDNS and ecosystem preservation. While there are several ways to achieve this goal, one particular approach holds great promise: restructuring the DOD's and DHS's budgets to increase funding for environmental programs and to facilitate more partnerships between the agencies and public and private actors.

Reforming NDNS budgets in the near future is both feasible and timely, given the growing consensus that both DOD and DHS are over-funded agencies that spend money superfluously and unwisely.[182] Widespread budgeting concerns, alongside the rapidly expanding movement to make NDNS operations more eco-friendly, are paving the way for fundamental intra-agency change.[183] Congress, DOD, and DHS can and should respond to the calls for change by improving budget management and allocating more resources to underfunded environmental programs. Doing so would both increase the sustainability of NDNS operations and create future cost-savings for both DOD and DHS.[184]

---

178 *Id.*

179 Other common "munitions" used for crowd control include CS Gas, OC gas, HC smoke, and pepper balls. *Id.* at 2 n.1.

180 *Id.* at 19; *see generally* Center for Biological Diversity, *Halting the Extinction Crisis*, https://perma.cc/ZN2L-LT4V (last visited May 26, 2021) (discussing the major role that climate change and habitat degradation play in accelerating the extinction crisis).

181 *See supra* notes 168–180 and accompanying text (describing the ecological disruptions from President Trump's proposed border wall and DHS's plan to quell Black Lives Matter protesters in Portland, Oregon).

182 *See* discussion *infra* notes 189–191 and accompanying text.

183 *See* discussion *infra* notes 190–191 and accompanying text.

184 *See* discussion *infra* notes 240–241 and accompanying text.

While groups should continue advocating for stricter application of environmental laws to NDNS activities—both in the legislature and courts—these approaches are unlikely to bring about the magnitude of change necessary to curb irreversible environmental destruction. As we have seen with other highly contentious issues such as climate change, the government is not the ideal forum to bring about rapid, systematic, grass-roots change.[185] Defense policy is similar to climate change, in that attempting to limit the power of DOD and DHS by repealing existing NDNS exemptions in federal environmental laws or in the IIRIRA is likely to face significant backlash from legislators, especially those with more conservative ideologies.[186] Further, challenging the judiciary's highly deferential approach to evaluating NDNS operations may not yield expedient and impactful results, as phasing out NDNS "super deference" would require a fundamental shift in attitude among judges—and perhaps even in society writ large. Like previous changes to legal doctrines, reform would occur slowly over time—if at all.[187] Intra-agency budget reform, on the other hand, is more likely to receive greater support and could take effect more quickly.[188]

A. The Growing Motive to Restructure Defense and National Security Budgets, and to Increase Environmental Stewardship in Military Operations

A wide range of stakeholders, including ex-military officers, members of Congress, and private citizens, support making modifications to the existing multi-billion dollar budgets of DOD and DHS.[189] Critics are calling for NDNS budget reform for a variety of reasons. Namely, U.S. military spending far exceeds the amount needed to ensure national security and military readiness, and the agencies that receive NDNS-related funding have a track record of superfluous spending and budget mismanagement.[190] Moreover, as the threat of climate change and the

---

[185] *See generally* Jeff Neal, *Why Is Change so Hard to Accomplish in Government?*, FED. NEWS NETWORK (June 12, 2014), https://perma.cc/KTZ6-EKDB (noting that "[r]eal change in government takes bold leadership, parties willing to work together for the common good, people in government who understand the levers of bureaucracy and how to make them work, and a good bit of luck.").

[186] *See supra* Part II (explaining that courts and legislatures have expressly prioritized NDNS among other policy goals, giving military operations and national security programs immense weight; suggesting reasons why NDNS affairs have received special treatment in the legal system and will continue to receive such treatment in the foreseeable future).

[187] This is in part because of *stare decisis*, which is latin for "to stand by things decided." *Stare decisis*, LEGAL INFO. INST., https://perma.cc/P5UP-C98E (last updated Mar. 2017). *Stare decisis* may promote consistency and fairness, but it also "encumbers the legal system's ability to quickly adapt to change." *Id.*

[188] *See infra* notes 194–197 and accompanying text.

[189] *See infra* notes 194–198, 204–206 and accompanying text.

[190] *See* Elliott Negin, *It's Time to Rein in Inflated Military Budgets*, SCI. AM. (Sept. 14, 2020), https://perma.cc/7M7L-9ZCP (highlighting the huge disparity in military spending between the U.S. and other countries and describing the numerous, highly expensive failed

current extinction crisis grow more severe each day, leaders within the international NDNS community are beginning to devote more time and attention to eco-friendly solutions.[191] For these reasons, efforts to reallocate a portion of DOD and DHS resources to underfunded environmental programs have a reasonable chance of success.

First, the U.S. is the world's leading benefactor to NDNS, having devoted $700 billion to national defense in the 2019 fiscal year.[192] Critics of such aggressive spending argue that the result is not enhanced military preparedness, but rather, wasted taxpayer dollars.[193] Leaders at the forefront of NDNS operations—including top Pentagon officials—are among these critics, having voiced their concern with U.S. military spending.[194] Recently, a task force consisting of congressional and Pentagon budget specialists, think tank experts, and ex-military officers co-authored a report asserting that the DOD could easily trim $1.2 trillion from the budget over the next decade without hindering national security or military capabilities.[195] This study, among other initiatives,[196] suggests that NDNS agencies could make significant budget cuts and either reduce overall spending or re-direct superfluous funding to other important programs and initiatives.[197]

Second, critics assert that NDNS agencies have weak internal controls and poor money management, and that Congress and the administrative state's lack of oversight is highly problematic.[198] Elliott Negin, a writer at the Union for Concerned Scientists, went so far as to claim: "If the Pentagon were a private corporation, gross mismanagement would have forced it into bankruptcy years ago."[199] According to Mr. Negin, NDNS agencies should target two major sources of waste: superfluous administrative spending;[200] and the agencies' propensity to

weapons systems and other programs that, in actuality, provided little in actual national security).

191 *See infra* notes 207–214 and accompanying text.

192 CRAWFORD, *supra* note 16, at 1.

193 Negin, *supra* note 190.

194 *Id.*

195 *Id.*

196 In other instances, "[t]op Pentagon officials [have] concede[d] that the U.S. nuclear arsenal could be trimmed considerably without jeopardizing security." *Id.* There seems to be support among legislators on Capitol Hill, as well. In May of 2019, a group of representatives in the U.S. House attempted to shed light on military super-spending, calling on their peers to support legislation that would slash military budgets and re-purpose those funds to support vulnerable Americans struggling amidst the pandemic. *Id.* A few months later, an amendment to cut the proposed military budget by 10 percent did not pass through both houses, but nevertheless received a surprising amount of support from both democrats and republicans—"93 yea votes in the house and 24 in the Senate." *Id.*

197 *Id.*

198 *Id.*

199 *Id.*

200 *Id.* A federal advisory panel issued a report concluding that the Pentagon could save as much as $125 billion, simply by streamlining its administrative processes to promote efficiency and consistency. *Id.*

fund expensive, yet risky and unreliable, weaponry systems that sometimes do not even clear the prototype phase.[201]

Similarly, critics have condemned the DHS for mismanaging their staggeringly large budget, and have suggested that Congress cut DHS funding in subsequent years rather than increase it.[202] Ten years after Congress established DHS, the Subcommittee on Oversight and Management Efficiency conducted a House Hearing to examine the agency's questionable use of taxpayer funds.[203] The Committee Chairman emphasized that despite congressional watchdogs issuing dozens of reports detailing how DHS could improve budget management and organizational efficiency, the Department had not adopted any of those cost-saving recommendations but, instead, had incurred billions of dollars in cost overruns.[204] The Government Accountability Office took a similar stance when issuing a report on DHS's authorization of funds for Trump's border wall projects:

> DHS plans to spend billions of dollars developing and deploying new barriers along the southwest border. However, by proceeding without key information on cost, acquisition baselines, and the contributions of previous barrier and technology deployments, DHS faces an increased risk that the Border Wall System Program will cost more than projected, take longer than planned, or not fully perform as expected.[205]

In addition to the growing consensus for NDNS budget reform, public and private actors are pushing to enhance environmental stewardship in NDNS operations.[206] In 2014, the North Atlantic Treaty Organization (NATO) launched an initiative called the "Green Defense Framework," which sought to address operational effectiveness and environmental preservation in national defense operations.[207] Europe has been a front-

---

[201] *Id.* Between 2000 and 2010, the Pentagon cancelled twelve weapons programs that failed to work, did not make it past the prototype phase, or were never actually built, costing $46 billion in military funds—more money than the federal government allocated to the EPA for a five-year period. *Id.*

[202] *See infra* notes 204–206 and accompanying text.

[203] *Assessing DHS 10 Years Later: How Wisely Is DHS Spending Taxpayer Dollars?: Hearing Before the Subcomm. on Oversight and Management Efficiency of the H. Comm. on Homeland Security*, 113th Cong. 1 (2013).

[204] *Id.* (statement of Rep. Jeff Duncan, Chairman of the Subcomm. on Oversight and Management Efficiency of the H. Comm. on Homeland Security). Representative Barber, Ranking Minority Member of the Subcommittee, agreed with Rep. Duncan, noting that "the Department must fix its broken acquisition system to improve how it does its job cost analysis and to make sure that we have a better way of purchasing and deploying technology." *Id.*

[205] Chris Rickerd, *Congress, Don't Throw More Money at Donald Trump's Weaponized Department of Homeland Security*, ACLU (Sept. 5, 2018), https://perma.cc/UH9A-FERQ.

[206] *See infra* notes 208–214 and accompanying text.

[207] KRISTIAN KNUS LARSEN, UNFOLDING GREEN DEFENSE: LINKING GREEN TECHNOLOGIES AND STRATEGIES TO CURRENT SECURITY CHALLENGES IN NATO AND THE NATO MEMBER STATES 5–6 (2015).

runner in identifying solutions to NDNS-related environmental destruction, perhaps in response to NATO's call for action.[208]

Recently, European academics and policy-makers have actively participated in roundtable discussions regarding how to best integrate environmental sustainability with military operations, and countries are taking concrete actions.[209] The British military is in the midst of testing hybrid-electric technology for armored vehicle fleets.[210] The European Defense Agency has established a "Military Green" program for the European Union, which among other things, facilitates public-private partnerships necessary for the investment, development, and installation of solar photovoltaics that power military installations.[211] Even the U.S. DOD recently recognized NDNS-induced environmental harm, as well as the importance of adopting renewables and increasing energy efficiency.[212] The DOD, for example, acknowledged that climate change poses a threat to national security,[213] and as a result, launched several initiatives to reduce reliance on fossil fuel use in Army, Navy, Air Force, and Marine Corps operations.[214] These facts suggest that the existing NDNS budgets are ripe for a restructuring, and given the wide-spread concern over environmental crises, now is the time to make necessary changes.

B. Current Funding Gaps for the Department of Defense's and Department of Homeland Security's Environmental Programs, and the Best Utilization of Additional Resources

An analysis of DOD and DHS budgets illustrates that the agencies are not devoting enough funding to their environmental programs and initiatives to fully compensate for the damage done, nor to adequately prepare for future environmental risks. While the DOD and DHS are already conducting some restoration work, enhancing operational sustainability, and investing in renewable energy sources, resource constraints limit the agencies' capabilities.[215] As they currently stand, the NDNS-related environmental programs are not comprehensive enough to

---

[208] *See generally* Kate McNeil, *A Greener Future for the Military?*, CTR. FOR SCI. & POLICY (Jan. 14, 2020), https://perma.cc/X9QY-FFCS (describing UK policy makers and academics engaging in "discussion on the future of military operations and rapid response to humanitarian disasters in a changing energy landscape.").

[209] *Id.*

[210] Lucy Fisher, *British Military Tests Out Eco-Friendly Vehicles*, SUNDAY TIMES (Aug. 20, 2020), https://perma.cc/8MAA-5ZBJ.

[211] EUROPEAN DEFENCE AGENCY, MILITARY GREEN 6 (2012), https://perma.cc/6MPY-AHJE.

[212] *DoD's Energy Efficiency and Renewable Energy Initiatives,* ENV'T & ENERGY STUDY INST. (July 2011), https://perma.cc/8WXF-TKCH; *see infra* notes 222–229, 239–240 and accompanying text.

[213] Curtis Cranston, *The U.S. Military's Environmental Protection Efforts: Unexpected Eco-Friendly Solutions to Land Management Problems*, 60 B.C. L. Rev. 1023, 1046 (2019).

[214] *DoD's Energy Efficiency and Renewable Energy Initiatives, supra* note 212.

[215] *See infra* notes 222–229, 239–240 and accompanying text.

curb climate change or prevent irreversible damage to natural resources.[216]

The DOD has a department-wide defense environmental program (DEP) that the agency divided into three categories: environmental restoration, environmental quality, and environmental technology.[217] In 2019, the DOD devoted $3.6 billion to the DEP, which is consistent with the spending allocations in previous years.[218] While $3.6 billion might seem like a staggeringly large number, it only comprised 0.5 percent of the DOD's overall budget in 2019, which was approximately $686 billion.[219] When split among three sub-programs, a budget of $3.6 billion is simply not enough to adequately compensate for the full extent of environmental harm caused by military activities while simultaneously investing in cleaner technologies at the rate we should be doing so.

For example, DOD's environmental restoration program focuses solely on cleaning up superfund sites under CERCLA and developing technology to reduce clean-up costs and enhance efficiency.[220] DOD is responsible for cleaning up approximately 39,600 contaminated sites through its two restoration programs: the Installation Restoration Program (IRP) and the Military Munitions Response Program (MMRP).[221] Even though IRP and MMRP have effectively restored 33,800 contaminated sites over the course of many decades, as many as 5,800 toxin-ridden sites remain untreated as of 2019—that is approximately 15 percent.[222] With more funding, the DOD could have more rapidly cleaned existing sites and would have more resources to address the remaining 15 percent of sites that pose a severe threat of harm to both wildlife and surrounding communities.

The environmental quality program has faced similar resource constraint challenges. This program addresses compliance with environmental laws and regulations; protects natural resources, cultural resources, and wildlife; and promotes pollution prevention by reducing use of hazardous materials and waste generation.[223] Funding for the program is not consistent, but rather varies annually depending on other budget allocations in the Department.[224] For example, funding for Air Force-specific EQ projects decreased by 19.5 percent during fiscal year

---

[216] *See supra* Part III; *see also, e.g.*, *infra* notes 223, 226, 230 and accompanying text.

[217] U.S. DEP'T DEF., DEFENSE ENVIRONMENTAL PROGRAMS ANNUAL REPORT TO CONGRESS FOR FISCAL YEAR 2019 1 (2020) [hereinafter DOD ENVIRONMENTAL REPORT 2019].

[218] *Id.*

[219] U.S. DEP'T DEF., DEFENSE BUDGET OVERVIEW: UNITED STATES DEPARTMENT OF DEFENSE FISCAL YEAR 2019 BUDGET REQUEST 1–2 (2018), https://perma.cc/7HXR-89ZT.

[220] DOD ENVIRONMENTAL REPORT 2019, *supra* note 217, at 3.

[221] *Id.*

[222] *Id.*

[223] *Id.* at 11.

[224] U.S. DEP'T DEF., DEFENSE ENVIRONMENTAL PROGRAMS ANNUAL REPORT TO CONGRESS FOR FISCAL YEAR 2018 1, 11–12 (2019) [hereinafter DOD ENVIRONMENTAL REPORT 2018].

2017–2018 in order to fund other Air Force Programs that were likely a higher priority.[225]

DOD's environmental technology program includes the Strategic Environmental Research and Development Program and the Environmental Security Technology Certification Program.[226] The former program develops, tests, and implements innovative technologies that save the DOD time and money while simultaneously reducing environmental risk.[227] The latter program identifies promising technologies that can solve the DOD's high priority environmental challenges, and provides stakeholders with cost and performance data gathered by program experts.[228] The environmental technology program as a whole receives, by far, the smallest allocation of annual funding.[229] In 2019, the technology program received $157.4 million, while the environmental quality program received nearly $2.0 billion and the environmental restoration program received $1.5 billion.[230]

Funding for green technology is likely more scant than for its counterpart programs because with a constrained budget, the DOD is more concerned with addressing existing problems and maintaining ongoing compliance, rather than developing green technology that has a preventative effect. The DOD's approach is problematic. NDNS agencies should prioritize technological innovation, in part because technologies can lead to intra-agency cost-savings. For example, in the DOD's annual report to Congress for fiscal year 2018, the DOD estimated that new pollution prevention technologies have potential to reduce costs throughout various branches of the Armed Forces.[231] Similarly, DHS realized an estimated $314 million in savings from environmental sustainability initiatives between fiscal years 2010–2018, and an additional $234 million in savings is forecasted between fiscal years 2019–2025.[232]

Unlike the DOD, DHS does not have a separately-funded agency-wide program for environmental work.[233] Rather, DHS has taken a

---

[225] *Id.* at 12.

[226] DOD ENVIRONMENTAL REPORT 2019, *supra* note 217, at 15.

[227] *About SERDP*, STRATEGIC ENVIRONMENTAL RESEARCH & DEVELOPMENT PROGRAM AND ENVIRONMENTAL SECURITY TECHNOLOGY CERTIFICATION PROGRAM, https://perma.cc/A98C-QSZP (last visited May 31, 2021).

[228] *About ESTCP*, STRATEGIC ENVIRONMENTAL RESEARCH & DEVELOPMENT PROGRAM AND ENVIRONMENTAL SECURITY TECHNOLOGY CERTIFICATION PROGRAM, https://perma.cc/XEL6-G9D5 (last visited May 31, 2021).

[229] DOD ENVIRONMENTAL REPORT 2019, *supra* note 217, at 2.

[230] *Id.*

[231] DOD ENVIRONMENTAL REPORT 2018, *supra* note 224, at 14.

[232] U.S. DEP'T HOMELAND SECURITY, SUSTAINABILITY REPORT AND IMPLEMENTATION PLAN 2020 1, 4 (2020) [hereinafter DHS SUSTAINABILITY PLAN 2020].

[233] *See generally* U.S. DEP'T HOMELAND SECURITY, FISCAL YEAR 2019 BUDGET IN BRIEF, 1, 11, 17 [hereinafter DHS 2019 BUDGET IN BRIEF]. The precise amount of funding that DHS allocates to environmental causes—for example, environmental restoration and clean-up, energy efficiency, renewable energy projects, waste reduction—is unknown, given that DHS does not have a separately funded, agency-wide environmental program.

decentralized approach, "driving sustainability at the Component level."[234] Under the DHS's Sustainability Plan, DHS components[235] develop their own sustainability performance plans and report back to DHS leadership on compliance with their plans.[236] The plans target a variety of topics including energy efficiency, waste management, renewable energy adoption, fleet electrification, and acquisition of sustainable products, electronics, and services.[237] DHS's decentralized approach is problematic because the Department's Budget in Briefs do not specifically include funding for sustainability initiatives.[238] DHS does appropriate some funds on an annual basis for environmental restoration work, but that money is solely for the U.S. Coast Guard—not for any of the other thirteen DHS operational and support components—and the Coast Guard's environmental compliance and restoration funding is an exceedingly small portion of DHS's overall budget.[239]

Even a small budgetary change would make a big difference. For example, merely allocating an additional one percent from DOD's $686 billion dollar budget to DOD's environmental fund would create an additional $6.86 billion for the Department to invest in renewables and restore untreated Superfund sites. Similarly, allocating an additional one percent from DHS's $74 billion dollar budget to DHS's sustainability program, would result in $740 million for the agency to utilize.[240]

Clearly, increasing the budget caps of DOD's DEP, as well as DHS's Sustainability Program and the Coast Guard's Environmental Compliance and Restoration Fund, would be beneficial for NDNS agencies. That said, DOD and DHS would be wise to focus their efforts on one particularly effective strategy: expanding public-private partnerships in order to accelerate development and implementation of greener NDNS technologies and land management strategies. With greater funding, the DOD and DHS could leverage public and private partnerships to achieve

---

[234] DHS SUSTAINABILITY PLAN 2020, *supra* note 232, at 3.

[235] DHS has fourteen Operational and Support "Components," which together, make up DHS. These include, but are not limited to, the U.S. Coast Guard, the U.S. Citizenship and Immigration Services, and the U.S. Customs and Border Protection. *Operational and Support Components*, DEP'T HOMELAND SECURITY, https://perma.cc/Z6JA-MKKS (last updated Dec. 3, 2020).

[236] DHS SUSTAINABILITY PLAN 2020, *supra* note 232, at 3.

[237] *See generally* DHS SUSTAINABILITY PLAN 2020, *supra* note 232.

[238] In DHS's "Budget In Brief" for fiscal year 2019—which laid out the agency's funding history for recent years, its current funding priorities, and its requested allocations—there is no reference to the Department's "sustainability initiatives." *See generally* DHS 2019 BUDGET IN BRIEF, *supra* note 233. In addition, DHS made no mention of environmental stewardship as a funding priority in their Budget in Brief. *See generally id.*

[239] DHS's FY 2019 budget allocated $13.4 million for Coast Guard Environmental Compliance and Restoration. *Id.* at 92. To put that amount in perspective, DHS received $47.5 billion in discretionary funds in 2019, bringing their total budget to approximately $74 billion. *Department of Homeland Security Statement on the President's Fiscal Year 2019 Budget,* U.S. DEP'T HOMELAND SECURITY (Feb. 12, 2018), https://perma.cc/3P6N-8D5Z.

[240] The figures in this paragraph were calculated using DOD and DHS's reported budgets in fiscal year 2019. *See supra* notes 219, 233.

more aggressive carbon reduction and habitat restoration goals. Increased collaboration between the private sector, non-governmental organizations, and NDNS agencies has proven a successful means of achieving more eco-friendly NDNS policies.[241] As discussed previously, the DOD and DHS are somewhat limited in their capacity to research, test, and implement new technologies for managing environmental degradation, and the private sector can fill that gap—providing technical, logistical, and financial support to NDNS agencies.[242]

To their credit, the DOD has recently shown a commitment to reducing the environmental impact of military operations, partly because the DOD recognizes that climate change has become a national security issue.[243] Taking a similar approach as Europe, the DOD has begun to team up with private financiers and technology firms in order to develop less fossil-fuel intensive technology.[244] In 2012, Congress uniquely enabled the Department to enter into thirty-year power purchase agreements (PPAs) with private entities for renewable energy projects, enhanced-use leases, and energy savings performance contracts.[245] More funding for environmental projects would enable the DOD to enter into more, and perhaps larger, PPA agreements with private entities, reducing the DOD's carbon footprint.

Apart from energy work, the DOD has made some efforts to compensate for their degradation of wild lands, and reduce operational waste.[246] For example, the DOD's Readiness and Environmental Protection Integration (REPI) program, established in 2012, has proven a successful tool for mitigating NDNS-related destruction of wildlife habitat.[247] The REPI program has three innovative features.[248] REPI allows for cooperative partnerships between the DOD, other governmental entities, and public and private actors, for the purpose of implementing mutually beneficial land preservation strategies.[249] These

---

241 *See generally* Sarah E. Light, *The Military-Environmental Complex*, 45 ENV'T L. REP. 10,763, 10,767 (2015) (discussing the benefits of increased cooperation between the military, private financiers, and technology firms, and providing recommendations for further improvement); *see generally* Cranston, *supra* note 213, at 1056 (discussing how partnerships and collaboration have preserved land in thirty-three states).

242 *See supra* notes 230–231 and accompanying text; *see also infra* notes 245–246 and accompanying text.

243 Cranston, *supra* note 213, at 1046.

244 *See generally* Light, *supra* note 241. The Army's Office of Energy Initiatives (OEI), established in 2014, is the Department's primary entity responsible for coordinating large-scale renewable energy projects on Army installations. *Id.* at 10,768. The OEI was formerly known as the Energy Initiatives Task Force (EITA), and was established to promote "energy security and sustainability." *Id.* One year after the EITA came into effect, Congress passed legislation to require the Department of Defense to "produce or procure not less than 25% of its energy on installations from renewable sources by 2025." *Id.*

245 *Id.* at 10,767.

246 *See infra* notes 249–254 and accompanying text.

247 Cranston, *supra* note 213, at 1056.

248 *See infra* notes 249–251 and accompanying text.

249 Cranston, *supra* note 213, at 1053–55, 1057.

partnerships utilize both financial tools—for example, pooling investments to preserve privately owned land near bases—and legal tools such as conservation easements and management endowments.[250] Other REPI initiatives include Legacy grant projects, which directly fund NGO research on public lands management and wildlife conservation, and the DOD's buffering program, which is designed to offset NDNS damage with preservation of critical habitat on lands near military installations.[251] The DOD has also recognized the need to leverage innovative technology to reduce operational waste.[252] Army research laboratories are currently tinkering with advanced 3D printing technology to build soldier supplies out of plastic waste.[253]

These examples illustrate that market-based, technological approaches are quickly gaining traction and have the ability to substantially mitigate NDNS-related environmental harm. That said, the lack of comprehensive funding from DHS and DOD has stunted growth and progress. If the DOD and DHS restructured their budgets in the near future, the agencies could increase the rate and scale of their collaborations with private companies and NGOs to make greater strides in environmental preservation.[254] The opportunities are endless, if only NDNS agencies would timely respond to the outcry for budget reform and the growing concern over environmental destruction.

V. CONCLUSION

This Chapter has shed light on a deeply troubling issue: the government's failure to hold NDNS agencies accountable for the inherent harms that accompany NDNS operations, and the acceleration of environmental destruction resulting from that lack of accountability. Courts and legislators have shielded the DOD and DHS from interference to advance what they believe is the paramount policy interest of the century: NDNS.[255] The successful passage of military exemptions to federal environmental laws, as well as the judiciary's unwillingness to

---

[250] *Id.* at 1058.

[251] *Id.* at 1053–55, 1057–60. The REPI program has made a noteworthy impact on habitat preservation. "[S]ince 2003, the REPI program has enabled the DoD to collaborate with its partners to contribute over $1.6 billion toward buffering and natural resource management efforts, protecting more than 580,000 total acres of land in thirty-three states." *Id.* at 1056.

[252] *See infra* note 253 and accompanying text.

[253] Thomas Brading, *Going Green: Eco-Friendly Plastic to Replace Soldier's Supplies in Battle*, U.S. ARMY (Apr. 22, 2020), https://perma.cc/8RAD-7B5Y.

[254] Increased collaboration among DHS, NGOs, and private landowners could inspire other innovative land-management projects as well. For example, DHS could establish a program similar to the DOD's REPI, in order to leverage the resources of other stakeholders. Working with private landowners and NGOs, DHS could then construct and maintain wildlife corridors in areas where DHS infrastructure such as walls, fences, and buildings create barriers to wildlife movement and migration.

[255] *See supra* notes 19–23 and accompanying text.

enjoin NDNS operations or find violations therein, created unreasonable barriers to environmental groups seeking to challenge the status quo.[256]

In the absence of accountability, the DOD and DHS have contributed heavily to current environmental crises including climate change, natural resource contamination, permanent landscape alternation, and biodiversity loss.[257] The DOD is responsible for environmental harms associated with construction of facilities and bases, training programs, and the use of harmful defense technology and equipment.[258] DOD and DHS are responsible for consuming vast amounts of energy and emitting millions of tons of carbon dioxide into the atmosphere during the course of operations.[259] DHS has followed suit, recently engaging in environmentally destructive activities such as Operation Diligent Valor and construction of barriers along the southern rim of the U.S.[260] In addition, both DOD and DHS operations have disproportionately harmed low-income and minority communities by polluting air and water resources.[261]

While promoting greater agency accountability by eliminating legal loopholes and challenging NDNS "super deference" are steps in the right direction, the agencies themselves might be best suited to address the problem head-on. Modifying the existing multi-billion dollar budgets of DOD and DHS in order to allocate more resources to conservation work would result in greater gains in environmental preservation and future cost-savings.[262] With more funding, NDNS agencies could rapidly expand the number of partnerships among themselves, the private sector, and non-governmental organizations, in order to 1) accelerate development of innovative, eco-friendly defense technologies, 2) invest more heavily in renewables, and 3) manage public and private lands more effectively to protect natural resources and wildlife.[263] The burgeoning "green defense" movement is underway, and it is in the best interest of the U.S. to not only join the movement, but also to set an example for other countries to follow.

---

[256] *See supra* Part II.
[257] *See supra* Part III.A.
[258] *See supra* notes 148–154 and accompanying text.
[259] *See supra* notes 160–163 and accompanying text.
[260] *See supra* notes 165–167, 172–176, 181 and accompanying text.
[261] *See supra* Part III.
[262] *See supra* Part IV.
[263] *See supra* notes 240–242 and accompanying text.