Dredging: Making Waves for Commerce or Environmental Destruction

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DREDGING: MAKING WAVES FOR COMMERCE OR ENVIRONMENTAL DESTRUCTION

I. INTRODUCTION

As cities compete for federal funding for dredging projects, Congress faces pressure to minimize the detrimental effects of dredging instead of focusing on the economic benefits. Ports throughout the United States sustain the economy by shipping exports and receiving imports from container ships while simultaneously serving recreational purposes by providing dockage for cruise ships. More importantly, the military uses many ports to provide national security to the United States. Despite the benefits of increasing access to ports, environmental concerns over dredging and the disposal of dredged material have forced a conflict between economic development and environmental preservation.

Environmental groups, the legislature, the courts, and the President are all involved in the controversy surrounding dredging activities. One of the primary problems associated with dredging is the changing regulatory process, which substantially increases project costs and delays. The regulatory process has two distinct problems: (1) determining whether dredging projects should proceed under the balancing approach; and (2) determining how to assess and measure contaminated sediment to ensure that the disposal of dredged material is safe. The balancing approach is simply a comparative analysis between commerce and the environment. There are several factors that must be considered to...
ensure the safe disposal of dredged material because dredging causes incidental effects by disburseing pollutants and contaminants settled on the bottom of the ocean floor into the water column, changing the water flow, and disturbing bottom living communities.  

Dredging maintains navigable waterways for commercial, recreational, and national defense purposes. The continuously increasing sizes of commercial container ships, which are taking advantage of economies of scale, require deeper channels and berths. Initially, channels that were approximately thirty-five feet deep were sufficient to handle smaller container ships, called Panamax vessels. Larger Post-Panamax vessels and Post-Panamax Plus vessels, however, replaced Panamax vessels. A Panamax vessel is labeled as such because it is the largest ship that can pass through the Panama Canal. Post-Panamax vessels may travel via the deeper Suez Canal and require channels up to forty-five feet deep. Post-Panamax Plus vessels require channels with depths up to fifty feet.

Due to the reduction in trade barriers, world trade has increased the total value of imports and exports to twenty percent of the Gross Domestic Product of the United States. Ninety-five percent of all imports and exports in the United States pass through United States' ports. In 2004, the New York-New Jersey Port, the

9. See id. at 179 (discussing some environmental impacts of dredging).
11. See generally Juda & Burroughs, supra note 3, at 175 (noting deeper channels and berths required for larger vessels). "[L]arger ships benefit from economies of scale, so that a larger container vessel has lower costs per container and a larger tanker lower costs per unit of crude oil or other cargo." Id.
12. See Arnow, supra note 1 (discussing previous depth of channels was sufficient). Panamax vessels are those that meet the restrictions of the Panama canal, generally vessels transiting the canal must be at or less than 950 feet long, 106 feet wide, and draw 39.5 feet of water or less. See generally Letter from Autoridad Del Canal De Panama, MR Notice to Shipping No. N-1-2005 (Jan. 1, 2005), available at http://www.pancanal.com/eng/maritime/notices/n01-05.pdf.
13. See Arnow, supra note 1 (describing types of vessels).
14. Id. (defining Panamax vessels and noting larger vessels replaced them).
15. Id. (defining Post-Panamax vessels and discussing these vessels are larger than Panamax vessels).
16. Id. (stating Post-Panamax Plus vessels require deeper channels).
17. See Juda & Burroughs, supra note 3, at 175 (stating statistics derived from United States Department of Commerce, International Trade Administration, U.S. Aggregate Foreign Trade Data).
18. Id. at 174 (stating statistics provided by Department of Transportation and recognizing importance of shipping industry).
third largest port in the United States, had $114 billion of cargo pass through it; additionally, it provided approximately 227,000 direct jobs and 186,000 indirect jobs in 2000.19 Consistent with the overall decline in the number of ports that can accommodate the larger vessels, the New York-New Jersey Port cannot receive these larger vessels because its channels are not deep enough for the vessels’ draft.20 In 1986, Congress authorized the United States Army Corps of Engineers (Corps) to initiate dredging projects to deepen navigation channels to fifty feet in the New York-New Jersey Harbor.21

The increased demands for dredging have resulted in a conflict between those who favor dredging for economic development and those concerned with its harmful effects on the environment.22 This conflict has increased costs and caused substantial delays for dredging projects.23 There are numerous deficiencies fueling the conflict, including problems in the regulatory process and inadequate efforts to assess costs and benefits from dredging.24

This Comment examines the environmental costs and economic benefits of dredging while analyzing the limitations of the Corps to make the environment the paramount concern when dredging. Section II discusses current regulations, establishes who has authority when implementing a dredging project, and institutes guidelines for dredging.25 Section III presents a brief history of dredging and summarizes the procedural framework under the National Environmental Policy Act (NEPA).26 Section III focuses on the New York-New Jersey Port, which was the subject of recent litigation, and the limited remedy available to plaintiffs challenging the Corps’ actions.27 Section IV analyzes problems the Corps and pub-

20. See id. (noting vessels cannot make it to port).
21. See id. (stating Corps is authorized to dredge in harbor).
22. See Juda & Burroughs, supra note 3, at 171 (noting conflict between environmental impacts and economic development of dredging).
23. See id. (stating impact of conflict between environmental concerns and economic development of dredging).
24. See id. at 171-72 (discussing various reasons for conflict).
25. See infra notes 30-62 and accompanying text (discussing status of dredging regulations).
26. See infra notes 63-87 and accompanying text (discussing dredging history and NEPA’s process).
27. See infra notes 88-130 and accompanying text (discussing background of litigation surrounding Port of New York-New Jersey).
lic face when dealing with dredging and dredged material. Finally, Section V addresses the impacts of dredging under the current regulatory structure.

II. DREDGING REGULATION

Through regulations, the United States Environmental Protection Agency (EPA) takes the lead role in protecting the environment when cities and states exploit the financial benefits of dredging ports throughout the United States. First, the Marine Protection, Research, and Sanctuaries Act (MPRSA), also known as the Ocean Dumping Act, “is the primary Federal environmental statute governing transportation of dredged material for the purpose of disposal into ocean waters.” Second, the Clean Water Act (CWA) states, “section 404 governs the discharge of dredged or fill material into ‘waters of the United States.’” The Corps is the permitting authority under MPRSA and the CWA for disposal of dredged material, but the EPA retains review and veto power under section 404 of the CWA for dredging permits that do not meet the EPA’s environmental guidelines.

The EPA has established the following programs as guidelines for dredging: (1) laws and regulations; (2) planning; (3) testing and evaluation; (4) evaluation of alternatives; (5) beneficial uses; and (6) ocean dumping sites for dredged material. Each of these areas contributes to managing dredged material.

A. Laws and Regulations

MPRSA and the CWA are the primary regulations governing dredging in the United States; MPRSA is responsible for the disposal of dredged material into the ocean. EPA and Corps regula-

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28. See infra notes 131-97 and accompanying text (discussing analysis that Corps and public are facing).
29. See infra notes 198-230 and accompanying text (discussing impacts of dredging under current structure of regulations).
31. Id. (defining MPRSA).
32. Id. (discussing specifically section 404 of CWA).
33. See id. (noting Corps has authority to issue permits).
34. See id. (stating guidelines established by EPA).
35. See EPA, supra note 30 (summarizing impacts of guidelines).
tions provide procedures for ocean dumping permits. Additionally, the EPA regulations set forth the procedures for designating and managing ocean dumping sites. Further, section 404 of the CWA governs dredging and disposal of dredged materials for inland waters.

B. Planning

Planning for dredged material management involves both local planning groups and the National Dredging Team (NDT). The NDT includes the following agencies: EPA, Corps, Maritime Administration, Fish and Wildlife Service, National Oceanic and Atmospheric Administration’s (NOAA) National Marine Fisheries Service, NOAA’s National Ocean Service, and the United States Coast Guard. The NDT’s goal is to act as a liaison between the federal agencies facilitating communication, coordination and resolutions of dredged material, and promoting the implementation of the National Dredging Policy. The NDT has established an action agenda composed of twenty-two recommendations that focused on the beneficial uses of dredged material, sediment management, emerging issues, and strengthening Regional Dredging Teams.

C. Testing and Evaluation

Under MPRSA, evaluation of dredged material is dependent on biological tests. A manual, referred to as the Green Book, provides national guidance on ocean disposal of dredged material.

37. See id. (noting EPA and Corps determine procedures for ocean dumping permits).
38. See id. (discussing EPA responsibility to designating ocean dumping sites).
39. See id. (explaining how CWA covers inland water dredging and disposal).
42. See id. (listing goals of NDT).
45. See id. (stating requirements of ocean disposal); see also EPA/CORPS, EVALUATION OF DREDGED MATERIAL PROPOSED FOR OCEAN DISPOSAL: TESTING MANUAL 1.
For inland disposal, the CWA looks at physical, chemical, and/or biological tests when assessing how to dispose of dredged material. The Inland Testing Manual provides further guidance regarding these tests.

D. Evaluation and Alternatives

The EPA and the Corps must assess alternatives for disposal of dredged material. Together, the EPA and the Corps published *Evaluating Environmental Effects of Dredged Material Management Alternatives – A Technical Framework*, which provides a “roadmap” for the EPA and the Corps to identify environmentally acceptable alternatives for dredged material management. The EPA and the Corps designed this publication to provide a consistent approach for identifying alternatives that would meet the requirements of NEPA, CWA, and MPRSA. Under NEPA, the lead agency responsible for any proposed dredging project must assess all reasonable alternatives. “The alternatives analyzed in an Environmental Assessment (EA) or Environmental Impact Statement (EIS) must include not only all reasonable alternatives but also those that were eliminated from further study . . . by the agency responsible for the final decision.” The Corps, under NEPA regulations, must account for all aspects of the dredged material, ranging from disposal of the dredged material to cost studies of dredging and discharge to environmental protection. The Corps regulations state that the se-

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46. See EPA, supra note 44 (stating requirements of inland disposal).
50. See id. (discussing purpose of document).
51. See id. at 5 (noting section 102(2) of NEPA requires lead agency to assess alternatives).
52. Id. (stating requirements under NEPA).
53. See id. at 6 (stating Corps duties under NEPA).
selected alternative must be the least expensive plan that complies with the environmental regulations.\textsuperscript{54}

E. Beneficial Uses

The EPA, Corps, and other agencies are working together to find alternatives to disposing of dredged material.\textsuperscript{55} The goal is to turn the dredged material into a valuable resource.\textsuperscript{56} Options include using dredged material to replenish beaches and develop wetlands.\textsuperscript{57} These uses have the dual benefit of saving the public money and conserving the environment.\textsuperscript{58}

F. Ocean Dumping Sites for Dredged Material

Ocean dumping of dredged material occurs primarily at specific sites designated by the EPA under section 102 of MPRSA.\textsuperscript{59} The Corps is required to use these sites to the extent practicable, but it may dispose of dredged material at alternative sites with the EPA's consent.\textsuperscript{60} The EPA has divided the waters surrounding and within the United States into ten distinct regions.\textsuperscript{61} New York, New Jersey, and Puerto Rico are incorporated into Region Two.\textsuperscript{62}

III. BACKGROUND

A. Dredging

Ports have historically played a key role in the American economy.\textsuperscript{63} Early on, farmers lobbied Congress to improve ports to make it easier for farmers to get their produce to markets.\textsuperscript{64} Subse-

\textsuperscript{54} See EPA/Corps, supra note 49, at 6 (stating that plan must be the least expensive alternative).


\textsuperscript{56} See id. (noting dredged material can be valuable resource).

\textsuperscript{57} See id. (discussing beneficial uses of dredged material).

\textsuperscript{58} See id. (stating another benefit is cost savings to public).


\textsuperscript{60} See id. (noting Corps is required to use designated sites).

\textsuperscript{61} See id. (discussing ten regions established in United States).


\textsuperscript{63} See Juda & Burroughs, supra note 3, at 184 (discussing background of ports).

\textsuperscript{64} See id. (noting farmers pushed for improved ports).
quently, the Industrial Revolution, World War I, and World War II increased the need for port expansion and modernization.\(^65\) Article I, Section 9 of the Constitution (Port Preference Clause) reflects Congress’ desire to mitigate any “regional favoritism” in regulating ports and limits the implementation of a federal port policy.\(^66\) The Port Preference Clause does not prevent Congress from using its commerce power to implement navigational projects like dredging, as long as the benefits to a specific port are incidental.\(^67\)

Operational responsibility and regulatory authority were granted to the Corps in 1824 and 1899, respectively.\(^68\) When engaged in dredging activities, the Corps was concerned only with economic development, which resulted in many believing the Corps was merely an extension of Congress.\(^69\) During the 1960s, environmental concerns began to arise, which eventually resulted in legislation that impacted dredging activities.\(^70\) The legislation included: (1) the Fish and Wildlife Coordination Act of 1958; (2) the National Environmental Policy Act (NEPA) of 1969; (3) the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972; (4) the Federal Water Pollution Control Act (FWPCA) of 1972; (5) the Coastal Zone Management Act of 1972; and (6) the Sustainable Fisheries Act of 1996.\(^71\)

B. National Environmental Policy Act

NEPA requires an EIS when a report is produced either for a proposed legislation, or when a federal agency proposes actions which significantly affect the quality of the human environment.\(^72\) First, an agency must prepare an EA, which determines whether an EIS is required.\(^73\) If the EA concludes that there is a Finding of No

\(^{65}\) See id. (noting Industrial Revolution and both World Wars were served by improved ports).

\(^{66}\) See id. at 184-85 (discussing implications of Constitution on ports).

\(^{67}\) See id. (citing Alan L. Blume, A Proposal for Funding Port Dredging to Improve the Efficiency of the Nation’s Marine Transportation System, 33 J. MAR. L. & COM. 40, 47-61 (2002)) (stating Congress can still implement dredging projects).

\(^{68}\) See Juda & Burroughs, supra note 3, at 185 (granting Corps operational and regulatory authority to take on navigation projects).

\(^{69}\) See id. (discussing Corps primary concern was economic development).

\(^{70}\) See id. (discussing environmental concerns arose in 1960s).

\(^{71}\) Id. at 185-86 (stating acts that were centered around environmental concerns which impacted dredging activities).

\(^{72}\) See id. at 187 (describing when EIS is required under NEPA).

Significant Impact (FONSI), the project may proceed unless challenged in court.\textsuperscript{74} In \textit{Chevron U.S.A., Inc. v. Natural Resource Defense Council, Inc.} (\textit{Chevron}),\textsuperscript{75} the Supreme Court determined that courts should grant a high degree of deference to agency interpretations when an agency is responsible for administering a statute.\textsuperscript{76} FONSIs are subject, however, to either a reasonableness standard of review or to an arbitrary and capricious standard of review.\textsuperscript{77}

Under NEPA, plaintiffs challenging a FONSI or an EIS’s determination is required to prove their interests fall within the “zone of interests” under the statute, in addition to meeting the constitutional standing requirements.\textsuperscript{78} Plaintiffs challenging a FONSI may also be limited by mootness.\textsuperscript{79} If the project is completed prior to the lawsuit, even when NEPA is violated, the courts are less likely to review the action and to provide relief to the plaintiffs.\textsuperscript{80} For example, in \textit{Bayou Liberty Ass’n v. United States Army Corps of Engineers},\textsuperscript{81} the Corps issued a construction permit after a FONSI for retail space that involved paving over sixty acres of wetlands.\textsuperscript{82} Even though filling in sixty acres of wetlands reasonably had a detrimen-

\textsuperscript{74} See id. (stating project proceeds after FONSI).
\textsuperscript{75} 467 U.S. 837 (1984).
\textsuperscript{77} See id. (stating various standards used by courts for reviewing FONSIs). When applying the reasonableness standard, some courts stated an EIS is not required as long as the agency “reasonably concluded that the project will have no significant adverse environmental consequences.” \textit{Id.} (quoting \textit{California v. U.S. Dep’t of Transp.}, 260 F. Supp. 2d 969, 972 (N.D. Cal. 2003) (citation omitted). After the Supreme Court applied an arbitrary and capricious standard in \textit{Marsh v. Or. Natural Res. Council}, the D.C., First, Third, Fifth, Sixth, Seventh, Ninth, Tenth, and Eleventh Circuits review FONSI determinations under the arbitrary and capricious standard of review. \textit{Id.} (citing \textit{ Marsh v. Or. Natural Res. Council}, 490 U.S. 360, 377 (1989)). The Eighth Circuit, however, still uses the reasonableness standard. \textit{Id.} at 41-2 (citation omitted).
\textsuperscript{78} See id. at 44 (stating NEPA requires plaintiff to meet standing requirements). The standing requirements require plaintiffs to establish: (1) their interests fall within the “zone of interests” protected under NEPA; (2) suffered an injury that is concrete and actual or imminent; (3) the injury is linked to the defendant’s action; and (4) whether the injury is likely to be remedied. \textit{Id.} (citing \textit{Ocean Advocates v. U.S. Army Corps Eng’rs}, 402 F.3d 846, 859 (9th Cir. 2005)) (listing standing requirements).
\textsuperscript{79} See id. at 46 (discussing other limitations to plaintiffs challenging FONSI under NEPA).
\textsuperscript{80} See id. (describing implications when challenged action is moot).
\textsuperscript{81} 217 F.3d 393 (5th Cir. 2000).
\textsuperscript{82} See id. at 395-96 (discussing construction of Wal-Mart, Sam’s Club, and Home Depot complex located in 100 year old flood plain); see also Davis, \textit{supra} note 73, at 46 (citing \textit{Bayou Liberty Ass’n v. U.S. Army Corps of Eng’rs}, 217 F.3d 393, 395-96 (5th Cir. 2000)) (noting plaintiffs challenged Corps’ actions after construction was completed).
tal and significant environmental impact, the court held the claim moot and denied relief because the construction project was completed.83

In addition, a FONSI may be upheld under an arbitrary and capricious standard of review without environmental experts being involved.84 Courts have upheld FONSI determinations when the Corps “conferred with federal and state environmental agencies.”85 This standard allows FONSI determinations issued by the Corps to be upheld even though “the Corps is not an environmental protection agency, and its primary purpose is not preservation of the environment or natural resources.”86 Conversely, an EIS requires the Corps or other lead agency to consult appropriate federal agencies with environmental expertise regarding the environmental impacts of the project and any reasonable alternatives.87 This reduces the success of challenges to FONSI determinations by environmental groups.

C. Region Two: Natural Resource Defense Council, Inc. v. United States Army Corps of Engineers

In Natural Resource Defense Council, Inc. v. United States Army Corps of Engineers (NRDC I),88 environmental groups challenged a Corps project for violating NEPA and the Administrative Procedure Act (APA).89 The Corps project called for the deepening of channels in the New York-New Jersey Harbor by blasting and dredging.90 The plaintiffs claimed that the Corps failed to prepare a Supplemental Environmental Impact Statement (SEIS), which would have addressed any detrimental effects resulting from the dredging and blasting, in conjunction with a Remedial Investigation/Feasibility Study (RI/FS).91 The United States District Court for the Southern District of New York held that the Corps failed to take a “hard look"

83. See Bayou Liberty Ass’n, 217 F.3d at 396 (holding challenge was moot and denying relief).
84. See Davis, supra note 73, at 49 (recognizing environmental experts are not required in issuing FONSI).
85. Id. at 51 (noting FONSI was upheld with limited consultation with federal and state environmental agencies).
86. Id. (stating Corps is not an environmental protection agency).
87. See id. at 52 (citing 42 U.S.C. § 4332(2)(C) (2000)) (discussing requirements of lead agency when preparing EIS).
89. See id. at 387 (challenging project by Corps to deepen shipping channels by dredging).
90. See id. (discussing Harbor Deepening Project purpose is to increase channel depths for larger vessels).
91. See id. at 388 (stating plaintiffs’ argument that Corps is violating NEPA).
at the environmental effects of deepening the harbor in the RI/FS, which was to be supervised by the EPA; therefore, the Corps decision was arbitrary and capricious and violated NEPA and the APA.\footnote{92 See id. (holding Corps violated NEPA and APA).}

The Harbor Deepening Project (Project) combined various deepening projects in the New York-New Jersey Harbor and included the contaminated Newark Bay.\footnote{93 See NRDC I, 399 F. Supp. 2d at 388, 391 (discussing background of New York-New Jersey Project).} The EPA added Newark Bay to the Diamond Alkali Chemical Plant Superfund Site in 2004 in an Administrative Order on Consent (AOC).\footnote{94 See id. (discussing background of New York-New Jersey Project).} The EPA ordered Occidental Chemical Corporation to conduct a RI/FS in February 2004 because of the contamination from Agent Orange, which was discharged into the river during the Vietnam War.\footnote{95 See id. at 388 (ordering RI/FS study to determine degree and type of pollution and assess potential cleanup options).} The plaintiffs argued the Project would interfere with Occidental’s RI/FS by “disturbing and resuspending the contaminated sediments” before samples of sediments could be taken, and before appropriate analysis could be performed.\footnote{96 Id. (stating plaintiffs’ argument against Corps).} The Corps argued there was no need to prepare a SEIS because Occidental’s RI/FS would not be significantly affected by the Project.\footnote{97 See id. (stating Corps argument for not preparing SEIS).}

Although the district court found that the Corps violated NEPA and the APA, the Corps is only required to take a "hard look" at the effects of the Project on the RI/FS.\footnote{98 See NRDC I, 399 F. Supp. 2d at 388, 391 (stating argument against Corps).} If after doing so, the Corps finds the effects “are minor and easily controlled by cooperation between the . . . Corps and the EPA, and that preparing a[ ] SEIS would merely result in burden and delay[,]” then the Corps has met its burden under NEPA and can proceed with the Project.\footnote{99 See id. at 388 (stating Corps may determine SEIS is not necessary).} The requirements ensure either that the Corps either adequately considered the dredging method to be used in the harbor before creating any problems with RI/FS, or that the Corps cooperated with the EPA prior to determining the method of dredging.\footnote{100 See id. at 388-89 (noting two alternatives for compliance).}

NEPA and CWA’s standards have required that the Project undergo a variety of reviews, including a Final Environmental Statement, issued in 1980, and the Final Environmental Impact

\footnote{92 See id. (holding Corps violated NEPA and APA).}
Statement (FEIS), issued in December 1999. The FEIS concluded that dredging would disburse contaminated sediments into the water column, resulting in an increase in exposure for biological organisms. Dredging would also remove the top layer of sediment and expose deeper layers of sediment with less contamination to pollutants. The Corps stated that the exposure of biological organisms to contaminated sediment would be limited in time because the sediment would quickly settle to the bottom, and current vessel disturbance from traveling through shallow channels causes more exposure than dredging. Since the contaminated sediment is expected to settle quickly, the Corps anticipated the clean sediment exposed to the contaminants would also be "short-lived." Finally, the Corps claimed it would maintain Best Management Practices (BMPs) when dredging in order to minimize the distribution of contaminated sediment.

The Corps updated its EA after it combined other dredging projects with the Project and made changes in the Project’s design. Subsequently, the Corps issued a Limited Reevaluation Report and an EA with a FONSI. The Corps received the necessary certificates from New York and New Jersey under the CWA and met with the EPA to discuss the Project. Prior to the designation of Newark Bay as a Superfund site, the EPA informed the Corps that this designation would not prevent the Project from going forward. The EPA, however, refused to inform the Corps on whether it would need to obtain additional documentation under NEPA and deferred this decision-making process to the Corps. The Corps properly evaluated the Project to determine if any further action was required under NEPA; however, after comparing the Project to similar Superfund sites, such as the Hudson River.

101. See id. at 391-92 (stating Project subjected to review under NEPA and CWA).
102. See id. at 392 (stating adverse effects of FEIS).
103. See NRDC I, 399 F. Supp. 2d at 392 (stating adverse effects concluded by FEIS).
104. See id. (stating risks of dredging are less than not dredging).
105. Id. (explaining exposure to contamination is short-lived).
106. See id. (noting that BMPs reduce risk of contamination).
107. See id. (stating Corps updated its EA pursuant to regulations).
108. See NRDC I, 399 F. Supp. 2d at 394 (stating Corps issued updated EA with FONSI).
109. See id. (discussing Corps proceeded through planning process).
110. See id. at 394-395 (noting Superfund designation does not stop dredging entirely). The Hudson River was designated as a Superfund site and subsequently dredged. Id. at 395.
111. See id. (explaining EPA deferred to Corps on additional requirements).
and New Bedford Harbor dredging projects, the Corps concluded the EIS properly addressed Newark Bay, and the AOC did not result in any "substantial changes in existing conditions or project plans" to require a SEIS.\textsuperscript{112} Because a Superfund designation under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) may be deemed significant in itself, the district court noted the Corps, "in the interest of full public disclosure," should have prepared an EA/FONSI to document why a SEIS was not needed.\textsuperscript{113}

NEPA requires the federal government to protect the environment when implementing programs.\textsuperscript{114} "Among other requirements, NEPA directs that all federal agencies must, for every major federal action significantly affecting the quality of the human environment, prepare a detailed EIS."\textsuperscript{115} An EIS must address the following: (1) the environmental impact of the project; (2) any detrimental effects to the environment resulting from the project; (3) any alternatives; (4) a comparison between short-term uses to maintenance and enhancement of long-term productivity; and (5) "any irreversible and irretrievable commitments of resources" resulting from the project.\textsuperscript{116}

If the agency is unsure whether an EIS needs to be prepared, then the regulations require the agency to prepare an EA.\textsuperscript{117} An EA documents the issue and concludes whether an EIS or a FONSI determination is necessary.\textsuperscript{118} The lead agency will be given deference in assessing whether the risk is great enough to require an EIS, however, the possibility of only environmental effects can still require an EIS.\textsuperscript{119} Additionally, a SEIS is required when significant new information is obtained prior to federal action that "shows [it]
will affect the quality of the human environment in a significant manner or to a significant extent not already considered."120 Again, the agency’s determination is given some latitude here under the “rule of reason.”121

NEPA’s purpose is undermined because deference is given to the agency, and courts offer little protection.122 A court can only review the agency’s process to determine if the hard look standard was met and cannot interfere into areas of agency discretion.123 “As long as the agency has given adequate consideration to the environmental consequences of its actions, NEPA does not preclude it from ‘deciding that other values outweigh the environmental costs.’”124 In NRDC I, the court addressed only the issue of whether the Corps proceeded with the Project in violation of NEPA and the APA, but left any possible remedy for a subsequent opinion that would come after parties submitted briefs on remedies.125

In Natural Resource Defense Council, Inc. v. United States Army Corps of Engineers (NRDC II),126 the United States District Court for the Southern District of New York held that the Corps failed to cure the NEPA violation, but the court refused to issue an injunction because the plaintiffs had a legal remedy.127 The legal remedy merely forced the Corps to correct the deficiencies in the EA and document a “reasoned decision” on whether a SEIS was necessary.128 In essence, in NRDC I, the Corps violated NEPA and was required to take a hard look at the environmental consequences.129 In NRDC II, the Corps continued to violate NEPA by failing to cure

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120. Id. (citing Marsh v. Or. Natural Res. Council, 490 U.S. 360, 374 (1989)) (detailing when information requires agency to prepare SEIS).
121. Id. (citing Marsh, 490 U.S. at 373) (discussing standard governing agency’s decisions in light of new information).
122. See id. at 399 (citing Stewart Park & Reserve Coal., Inc. v. Slater, 352 F.3d 545, 557 (2d Cir. 2003)) (finding NEPA mandates process not specific result).
124. Id. (quoting Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 350 (1989)) (discussing agency is not barred from considering other values).
125. See id. at 389 (stating court only addressed whether Corps violated NEPA and APA).
127. See id. at 198, 238 (failing to give injunctive relief).
128. See id. at 238 (explaining legal remedy precluding injunctive relief).
129. See NRDC I, 399 F. Supp. 2d at 412 (holding Corps failed to take hard look and violated NEPA and APA).
the violation but was still subject to the same penalty as in NRDC II.130

IV. Analysis

A. Economy Versus Environment

During the Industrial Revolution and subsequent World Wars, issues relating to the environment were subordinated to the economy.131 The United States eventually recognized those profits came with a price.132 Congress responded to the concerns over the environment and enacted a variety of legislative acts including: (1) NEPA; (2) MPRSA; and (3) FWPCA, also known as the Clean Water Act (CWA)133, all in response to the detrimental effects the environment sustained as a result of unregulated use.134 In 2007, however, the balance between the economy and the environment still favors the economy.135

American ports are used to support military operations and transport two billion tons of domestic and international cargo, 3.3 billion barrels of oil, 134 million ferry passengers, and over five million cruise ship passengers.136 "Improving our ports, our rail system, our highways, our airways is not a matter simply of internal investment, it is a matter of international competition."137 Japan and China are presently spending trillions to update their facilities in order to be able to export their goods more efficiently to the United States.138 These goods are reaching American ports, which are too inefficient to handle the traffic.139 Delays in traveling the rivers require the United States to upgrade its infrastructure to re-

130. See NRDC II, 457 F. Supp. 2d at 258 (holding Corps must amend EA within four months to determine if SEIS is necessary).
131. See Juda & Burroughs, supra note 3, at 184-85 (noting impacts to environment were not considered until 1960s).
132. See id. (explaining public raised concerns over environment from Corps actions).
133. See id. at 191-92 (noting FWPCA is commonly referred to as CWA).
134. Id. at 185-86 (listing legislative acts enacted by Congress in response to rising environmental concerns).
135. See Arnow, supra note 1 (reiterating economic benefits still outweigh environmental impacts).
138. See id. (discussing issue with foreign countries overloading United States' ports with goods).
139. See id. (noting United States cannot unload products efficiently).
duce costs and increase commerce. These upgrades include building lock systems on the Mississippi and Missouri River, restoring levees in New Orleans, and dredging in the Great Lakes and the East Coast. Post-Panamax Plus vessels carry seven thousand to eight thousand containers, and there are even larger vessels being introduced to carry as many as ten thousand to twelve thousand containers. Only four of the ten major United States ports have channels and berths deep enough for these mega-containerships. Collectively, these ports receive and ship eighty percent of the container vessels.

NEPA’s process of self-policing is contrary to improving the environment. NEPA acknowledged that self-policing by federal agencies results in biased decisions. The Corps stated that its maintenance of navigable waters takes precedence over environmental concerns. When MPRSA was enacted, Congress discussed shifting regulatory authority for ocean dumping and associated permits to the EPA. The port and vessel owners were opposed to this idea because they claimed the EPA would not be an impartial evaluator of environmental impacts. Rather, giving the EPA decisional authority would increase costs and undermine any economic justification. Ultimately, Congress did not want arbitrary and unreasonable restrictions to hinder dredged material disposal until there were economically feasible alternatives to its

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140. See id. (discussing updates are necessary to United States’ infrastructure).
141. See id. (stating various types of updates necessary).
142. See Arnow, supra note 1 (stating size of vessels).
144. Juda & Burroughs, supra note 3, at 176 (stating only four ports can handle larger vessels).
145. Id. (noting these four ports accounted for 80% of container vessels).
149. See Juda & Burroughs, supra note 3, at 187-88 (discussing potential shift of regulatory power under MPRSA).
150. See id. at 188 (arguing EPA would not be impartial evaluator because it would overvalue environmental considerations).
151. See id. (arguing EPA would favor environment and increase costs to ocean disposal).
In the end, the Corps retained its permit authority for ocean dumping but had to follow guidelines set by the EPA.\textsuperscript{153} An EIS “must consider all foreseeable direct and indirect effects,” and the lead agency’s analysis must meet the “hard look” standard.\textsuperscript{154} But, NEPA’s application as a substantive law has failed.\textsuperscript{155} After the environmental effects are identified and evaluated, the agency is allowed to determine whether “its goals outweigh the environmental costs.”\textsuperscript{156} An EIS does not require consideration of \textit{all} alternatives, but only those that are reasonable within the purpose of the proposed project.\textsuperscript{157} The challengers of a proposed project have the burden of proving the decision was arbitrary and capricious.\textsuperscript{158}

\subsection*{B. Self-Policing}

Instead of cooperating with the EPA to find an environmentally acceptable alternative to the Project and the RI/FS being conducted, the Corps actions in \textit{NRDC I} appeared to circumvent the regulations established under NEPA. At the same time, however, the Corps is also required to find the cheapest alternative for dredging and disposing of dredged material, provided it complies with environmental laws.\textsuperscript{159} The mission of the Corps is not to provide environmental protection, but rather to comply with environmental laws and cooperate with the EPA; therefore, the Corps should not be in charge of determining “whether their proposed projects will harm the environment.”\textsuperscript{160} One critic suggests: any “foreseeable adverse environmental impact” identified in an EIS for a proposed action should result in an arbitrary and capricious decision.\textsuperscript{161}

\textsuperscript{152} See \textit{id.} at 189 (noting Congressional concern with proposed EPA restrictions on dredging activities).

\textsuperscript{153} See \textit{id.} at 189-90 (stating final provisions of MPRSA).


\textsuperscript{155} See \textit{id.} (noting NEPA’s failure to be applied as substantive statute).

\textsuperscript{156} \textit{Id.} (stating agency can undermine application of NEPA by deciding goals outweigh environmental costs).

\textsuperscript{157} See \textit{id.} (noting limited consideration of alternatives).

\textsuperscript{158} See \textit{id.} (explaining courts shift burden to challengers of decision to give deference to lead agency’s determinations).

\textsuperscript{159} See EPA/COrps, \textit{supra} note 49, at 6 (stating Corps is required to find least costly alternative aligning with environmental statutes).

\textsuperscript{160} See Davis, \textit{supra} note 73, at 35 (stating federal agencies without environmental expertise should not be empowered to determine environmental impacts of their projects).

\textsuperscript{161} \textit{Id.} (stating author’s argument for arbitrary and capricious decisions).
NEPA was intended to be the "most important and far-reaching conservation-environmental measure" passed by Congress.\textsuperscript{162} In practice, "NEPA has proven to be little more than a procedural hurdle, with no impact on the substantive outcome of proposed federal projects."\textsuperscript{163} The reason for this result is that the agency proposing a project with significant environmental impacts becomes the lead agency under NEPA with corresponding authority following it.\textsuperscript{164} This authority empowers the lead agency to determine whether the project creates any significant environmental impacts from the project, to draft an EIS, and to identify the best alternatives to the project.\textsuperscript{165} A lead agency that does not have environmental expertise, still has the authority to: (1) determine whether the project results in a major federal action with a significant environmental impact that would require an EIS; (2) engage other federal agencies, if any, to aid in the EIS; and (3) proceed with the project despite adverse environmental effects or a lack of approval from environmental experts.\textsuperscript{166}

NEPA’s process ends when a lead agency determines a project will not have any significant environmental impact, unless the action is challenged in court.\textsuperscript{167} The EPA has the authority to review an EIS, but it is not required to review an EA or FONSI.\textsuperscript{168} This results in little oversight by the EPA in preparation of an EA.\textsuperscript{169} Instead when a FONSI is issued, the EPA should have authority to require an EIS.\textsuperscript{170}

Critics of the self-policing initiative suggest that the EPA should have dual authority with other federal agencies responsible for projects with environmental concerns.\textsuperscript{171} At a minimum, the

\begin{flushleft}
\textsuperscript{162} Id. (citing 115 CONG. REC. 40,415, 40,416 (1969) (statement of Sen. Jackson)) (regarding his view of NEPA’s intention).
\textsuperscript{163} Id. (explaining NEPA’s requirements are easily met).
\textsuperscript{164} See id. (stating lead agency has authority under NEPA).
\textsuperscript{165} See Davis, supra note 73, at 35-6 (citing 42 U.S.C. § 4321 (2000)) (discussing authority vested in lead agency).
\textsuperscript{166} Id. at 36 (noting lead agency has authority but not required to have environmental expertise).
\textsuperscript{167} See id. (stating NEPA process ends where agency determines absence of significant environmental impact unless challenged in court).
\textsuperscript{168} See id. at 37 (noting EPA’s authority and discretion in reviewing assessments made by federal agencies on environmental impact).
\textsuperscript{169} See id. (stating EPA needs to be more involved).
\textsuperscript{170} See Davis, supra note 73, at 37 (arguing for changes to EPA’s oversight authority).
\textsuperscript{171} See id. at 38 (discussing dual authority and dual authority’s enactment).
\end{flushleft}
EPA should have to sign off on any FONSI.\textsuperscript{172} In \textit{Ocean Advocates v. United States Army Corps of Engineers},\textsuperscript{173} the Corps issued a FONSI without stating any reasons.\textsuperscript{174} Although the court held an EIS was required because there was \textit{no} support for the FONSI, the time and expense of litigation could have been avoided if a FONSI required EPA approval.\textsuperscript{175} An amendment to NEPA or judicial action could enact this dual authority.\textsuperscript{176}

Lead agencies have also tried to circumvent the EIS requirement by segmenting their projects, which prevents the cumulative effects from having a significant environmental impact.\textsuperscript{177} NEPA requires consultations with federal agencies having environmental expertise when preparing an EIS, but this requirement is commonly by-passed by lead agencies that either simply proceed over objections, or conclude that no significant environmental impact is likely.\textsuperscript{178} The EPA has authority to review the final EIS, but the review is limited to the information included in the EIS, which the \textit{biased} lead agency prepared.\textsuperscript{179} The self-policing by lead agencies could easily be limited by granting additional authority to the EPA, and other environmental agencies, to allow them to be involved in the preparation of an EIS.\textsuperscript{180}

C. Limited Deference

Judicial action is required to increase the likelihood that a court will hold an agency decision to be arbitrary and capricious when the agency lacks the appropriate environmental expertise.\textsuperscript{181} The Supreme Court stated, in \textit{Chevron}, that agency determinations

\begin{itemize}
\item \textsuperscript{172} See \textit{id.} (stating dual authority would allow EPA to participate in preparation of EA potentially leading to FONSI).
\item \textsuperscript{173} 402 F.3d 846, 875 (9th Cir. 2005).
\item \textsuperscript{174} See Davis, \textit{supra} note 73, at 51 (citing \textit{Ocean Advocates v. U.S. Army Corps of Eng'rs}, 402 F.3d 846, 866 (9th Cir. 2005)) (explaining grounds for court’s decision).
\item \textsuperscript{175} See \textit{id.} (noting requiring EPA approval of FONSIs would be more efficient).
\item \textsuperscript{176} See \textit{id.} at 38 (stating dual authority may require amendment to NEPA or judicial action).
\item \textsuperscript{177} See \textit{id.} at 51-2 (noting other attempts by agencies to avoid EIS).
\item \textsuperscript{178} See \textit{id.} at 52-3 (discussing practical difference between mandating consultation and requiring approval).
\item \textsuperscript{179} See Davis, \textit{supra} note 73, at 53 (summarizing EPA’s limited review authority in final EIS).
\item \textsuperscript{180} For a further discussion of increasing environmental agencies’ powers, see \textit{supra} notes 171-76 and accompanying text.
\item \textsuperscript{181} See Davis, \textit{supra} note 73, at 38 (noting courts must find more agency decisions arbitrary and capricious as alternative to amendment to NEPA).
\end{itemize}
are given a high degree of deference.\textsuperscript{182} The Supreme Court’s holding does not preclude courts from limiting the deference granted to agencies in dredging actions.\textsuperscript{183} This is because the \textit{Chevron} Court upheld the EPA’s interpretation of the Clean Air Act where the EPA was the \textit{sole} agency responsible for administering the statute.\textsuperscript{184} Conversely, other agencies make the decision to issue a FONSI or an EIS under NEPA, and the EPA is not the sole agency responsible for administering NEPA.\textsuperscript{185} The limited deference standard is thus possible, and the United States District Court for the District of Columbia has applied this standard.\textsuperscript{186}

In actuality, \textit{Chevron} deference is inapplicable to NEPA suits.\textsuperscript{187} The deference to lead agencies is inappropriate because they lack expertise in environmental protection or preservation and their mission may be “contrary to these goals.”\textsuperscript{188} Additionally, the lead agency does not have to obtain approval from the EPA and other relevant agencies in its decision making process.\textsuperscript{189} The courts should find a decision arbitrary and capricious if the lead agency’s decision is contrary to the EPA’s advice.\textsuperscript{190}

D. Other Alternatives

There are alternatives to limiting the deference granted to lead agencies. Any government agency, like the EPA, that is responsible for protecting the environment should have an “enhanced role.”\textsuperscript{191} These agencies should have the “authority to evaluate the environmental assessments leading to a FONSI and require preparation of an EIS pursuant to NEPA.”\textsuperscript{192} This increased authority should also include having a voice in the decision for alternate actions pursuant

\textsuperscript{182} See id. (citing \textit{Chevron U.S.A., Inc. v. NRDC}, 467 U.S. 837, 844 (1984)) (holding high degree of deference should be given to agency determinations).

\textsuperscript{183} See id. at 39 (noting high degree of deference does not preclude increased arbitrary and capricious findings).

\textsuperscript{184} See id. at 38-9 (distinguishing EPA’s role in \textit{Chevron} from roles of other agencies under NEPA).

\textsuperscript{185} See id. at 39 (explaining EPA is not sole decision maker under NEPA).

\textsuperscript{186} See Davis, \textit{supra} note 73, at 39 (stating reduced deference applied).

\textsuperscript{187} See id. (stating \textit{Chevron} deference is not appropriate in NEPA suits).

\textsuperscript{188} Id. (noting \textit{Chevron} holding is inapplicable in NEPA cases).

\textsuperscript{189} See id. (recognizing EPA’s approval is not required in decision making process).

\textsuperscript{190} See id. at 39 (suggesting arbitrary and capricious findings when lead agency decision is contrary to EPA advice).

\textsuperscript{191} Davis, \textit{supra} note 73, at 40 (proposing enhanced role for EPA and other agencies).

\textsuperscript{192} Id. (outlining additional authority that should be given to agencies responsible for environmental protection).
to an EIS and deciding whether the proposed project should proceed under the EIS.\(^{193}\)

An amendment to NEPA could increase the EPA’s authority over lead agencies.\(^{194}\) The EPA could increase its monitoring or post-completion evaluations.\(^{195}\) Unfortunately, these alternatives require shifting money from other agencies to increase the EPA’s budget in order to successfully enhance its role.\(^{196}\) Legislative enactment of these changes would give the courts greater power in enforcing decisions that effect the environment.\(^{197}\)

V. IMPACT

As of 2000, imports and exports represented twenty percent of the Gross Domestic Product of the United States, while international trade is expected to double by 2020.\(^{198}\) The shipping industry will continue to take advantage of economies of scale, thereby producing and using larger ships that reduce per unit shipping cost.\(^{199}\) Dredging is necessary to maintain navigable waterways free from redistributed sediments, to increase the depth and width of channels for larger vessels, and to create new port facilities.\(^{200}\) As dredging continues, the disposal of dredged material and its beneficial uses will continue to raise important environmental issues.\(^{201}\) There must be a balance between the benefits and detriments because the United States economy depends on further dredging; however, unlimited dredging at the expense of the environment is also unrealistic.\(^{202}\)

\(^{193}\) See id. (discussing increased authority given to agencies).

\(^{194}\) See id. (discussing methods to give more power to agencies responsible for environmental protection).

\(^{195}\) See id. (offering method to implement increased power for agencies).

\(^{196}\) See Davis, supra note 73, at 40 (explaining budget shifts required to implement enhanced role).

\(^{197}\) See id. (proposing legislature needs to assist courts with environmental protection).

\(^{198}\) See Juda & Burroughs, supra note 3, at 173-74 (presenting statistics on present and future impact of shipping industry on United States’ economy).

\(^{199}\) See id. at 175 (noting larger vessels will be used more often in shipping industry).

\(^{200}\) Id. at 179 (presenting three situations where dredging is required for maritime transportation).

\(^{201}\) See id. (discussing two key concerns with dredging: picking up sediment and disposing of sediment).

\(^{202}\) See id. at 216 (discussing halting all dredging or not regulating dredging is not feasible).
Currently, NEPA is ineffective at protecting the environment and preventing harm.\textsuperscript{203} NEPA has failed to be applied as a substantive law, and it has become little more than a procedural hurdle, wasting time and resources without substantial benefit to the environment.\textsuperscript{204} There is no doubt that industrial advancements and modern commerce have adverse consequences to the environment, but the legislature and the courts need to minimize these effects.\textsuperscript{205}

FONSI\textsuperscript{s} are being issued at one hundred times the rate of EIS\textsuperscript{s}: approximately five hundred EIS\textsuperscript{s} compared to fifty thousand FONSI\textsuperscript{s} issued annually.\textsuperscript{206} This results in agencies “underreporting environmental impact[s].”\textsuperscript{207} Due to the increased use of FONSI\textsuperscript{s}, the public and environmental groups are forced to challenge the Corps and its proposed project in court.\textsuperscript{208} These court actions cost money, consume time, and waste resources.\textsuperscript{209} These actions are also inefficient because of problems with standing and mootness.\textsuperscript{210}

This burden should not be forced on the public.\textsuperscript{211} The courts need to reduce the deference granted to the lead agencies, while the legislature should amend NEPA to assist the EPA in its mission.\textsuperscript{212} The EPA needs more authority in order to be involved in the Corps and other lead agency's decision making process. The EPA should have to approve all FONSI\textsuperscript{s}, which would reduce the benefit of issuing a FONSI over preparing an EIS.\textsuperscript{213}

The EPA's involvement in the preparation of an EIS should also be increased.\textsuperscript{214} This would improve the accuracy of the EIS because the lead agency preparing an EIS usually "has neither environmental expertise, nor an incentive to evaluate environmental

\textsuperscript{203} See Davis, supra note 73, at 55 (stating NEPA provides little protection for environment).
\textsuperscript{204} See id. (stating NEPA wastes time and resources and provides no substantial benefit to environment).
\textsuperscript{205} See id. at 61 (illustrating negative impacts from industry and commerce and need to reduce effects).
\textsuperscript{206} See id. at 41 (stating FONSI\textsuperscript{s} are used more often than EIS\textsuperscript{s}).
\textsuperscript{207} Id. (indicating federal agencies do not accurately report environmental impacts).
\textsuperscript{208} See Davis, supra note 73, at 41 (forcing public to take on responsibility to challenge Corps and FONSI determinations in court).
\textsuperscript{209} See id. at 43 (discussing problems with court challenges by public).
\textsuperscript{210} See id. (discussing inefficiencies with court actions).
\textsuperscript{211} See id. at 41 (examining public's burden to challenge actions in court).
\textsuperscript{212} For a further discussion of limiting deference, see supra notes 181-90 and accompanying text.
\textsuperscript{213} See Davis, supra note 73, at 50-1 (noting EPA should have to sign off on FONSI\textsuperscript{s}).
\textsuperscript{214} See id. at 52-3 (finding increasing EPA involvement in EIS preparation).
impact with any greater concern than economic benefits." When environmental experts are not involved, the courts should be suspicious of whether a lead agency took a hard look at the environmental impacts.

Until NEPA is given more authority, either legislatively by amendment or judicially, the environment will suffer adverse consequences. The Corps will continue to advance the economic benefits of dredging activities, while undermining the environmental impacts. Currently, NEPA's requirements are easily met without providing sufficient protection to the environment. "Allowing the lead agency that is promoting the project to determine environmental risks is like allowing the fox to guard the henhouse." Historically in NEPA cases, the Supreme Court has rarely held in favor of environmental groups challenging the actions. The two decisive factors in favor of lead agencies are: (1) the arbitrary and capricious standard of review; and (2) the deference granted to agency decisions.

Until the EPA's involvement is increased in the EIS process, any changes in a proposed project after an EIS is issued, which may require a SEIS, are also determined by the lead agency. The power lies with the lead agency or the potential polluter and not the EPA. More importantly, any changes to a plan that was approved and implemented do not require a SEIS. In a SEIS case, the Supreme Court has held that the standard of review is the arbitrary and capricious standard, and not the reasonableness standard. The Court stated the distinction is not vital, and instead focused on whether the decision was based on relevant factors and whether there was a clear error in judgment requiring the lead

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215. Id. at 53 (citing Cmty. Against Runway Expansion, Inc. v. FAA, 355 F.3d 678, 686 (D.C. Cir. 2004)) (noting contractor hired to construct project was allowed to draft EIS).

216. See id. at 56 (discussing problems with hard look standard).

217. For a further discussion of Corps' primary mission, see supra note 159-60 and accompanying text.

218. Davis, supra note 73, at 49 (discussing problem with NEPA process).

219. See id. at 60 (noting author did not find cases in favor of environmental groups).

220. Id. (stating two reasons environmental groups fail in their challenges).

221. See id. at 57 (discussing requirement for SEIS).

222. See id. at 59 (stating lead agency has power to issue SEIS).

223. See Davis, supra note 73, at 57 (noting when SEIS is not necessary).

agency to take a hard look at the new information.\textsuperscript{225} Again, this results in the lead agency having the power to decide when to issue a SEIS, while subordinating agencies like the EPA, which are charged with protecting the environment.\textsuperscript{226}

There must be a shift in authority under NEPA from the lead agency to agencies responsible for protecting the environment like the EPA.\textsuperscript{227} Adverse impacts on the environment will not decrease in today’s economy; however, minimizing harm must be a priority for the legislature and courts.\textsuperscript{228} Self-policing by the lead agency under NEPA continues to be ineffective because the procedural framework is flawed.\textsuperscript{229} The NEPA process will continue to undermine the environment while wasting time, money, and resources of courts and agencies.\textsuperscript{230}

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\textsuperscript{225} \textit{See id.} at 58 (citing \textit{Marsh}, 490 U.S. at 375-76) (noting Court more concerned with decision making process than differences between reasonableness and arbitrary and capricious standards of review).

\textsuperscript{226} \textit{See id.} at 59 (noting power to issue a SEIS is determined by lead agency).

\textsuperscript{227} \textit{See id.} at 65 (stating Congress can grant dual authority to EPA).

\textsuperscript{228} \textit{See Davis, supra} note 73, at 61 (discussing that courts and legislature need to minimize harm to environment).

\textsuperscript{229} For a further discussion of the problems with the NEPA process, \textit{see supra} notes 159-80 and accompanying text.

\textsuperscript{230} \textit{See Davis, supra} note 73, at 72 (stating negative impacts on environment will continue until changes are made).