NEPA at 50: An Empirical Analysis of NEPA in the Courts

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NEPA at 50: An Empirical Analysis of NEPA in the Courts

John Ruple *
Heather Tanana **

I. INTRODUCTION

The beginning of 2020 marked the 50th anniversary of the National Environmental Policy Act (NEPA). NEPA, which has been described as the Magna Carta of environmental laws, is the quintessential look before you leap law—rather than mandating or prohibiting specific actions, NEPA requires federal agencies to consider environmental impacts before acting, to engage in a meaningful discussion with the public regarding those impacts and the tradeoffs they entail, and to seek ways to minimize the environmental impacts that result from agency actions. These procedural requirements advance NEPA’s substantive goals of, among other things, “prevent[ing] or eliminat[ing] damage to the environment and biosphere.”

NEPA’s focus on process over limits and prohibitions results in a flexible framework, with the nature and extent of NEPA’s environmental review varying based upon the specifics of each proposed project. This flexibility is both a blessing and a curse because, while it affords agencies the ability to tailor their analysis to each proposed action, it also creates uncertainty in the process that applicants for federal permits may need to follow.

Controversial projects that are required to undergo NEPA review, like the Keystone XL Pipeline proposal, can generate compelling headlines, and anyone with a basic familiarity with NEPA is well aware of the stories of projects mired in

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2 Id. § 4321.
analytical delays and endless litigation. This paper attempts to move past anecdotes and headlines by looking at NEPA through the lens of empirical data.

We believe that moving from anecdote to empiricism will help inform ongoing discussions of how to streamline NEPA compliance while ensuring that agencies satisfy their three-fold requirement to foster environmental stewardship, meaningfully engage with permit applicants and the public alike, and carefully consider the environmental impacts before taking action. Conversely, divorcing NEPA reform proposals from fact greatly increases the risk that changes to NEPA’s implementing procedures will result in significant unintended adverse consequences.

Section II provides an overview of NEPA and pending calls for NEPA reform. In section III we take a hard look at the realities of NEPA compliance: How many NEPA decisions are completed each year? How long do those decisions take? And what causes the delays in NEPA compliance? We then turn to NEPA litigation, asking how many NEPA decisions are challenged each year, how these cases are resolved, and how NEPA litigation compares to other kinds of civil litigation involving the federal government. We also look for relationships between agency-specific NEPA procedures and NEPA litigation that may illuminate NEPA reform efforts. We conclude with several overarching observations and recommendations for reform that are anchored in empirical data.

II. BACKGROUND

We recognize that few people actually read law journal articles about NEPA, and that those who do are almost certainly familiar with the fundamental aspects of NEPA compliance. But even seasoned practitioners can benefit from a quick review of NEPA’s fundamental goals and procedural requirements, which frame our discussion of the burden imposed by NEPA compliance and anchor section III’s discussion of NEPA litigation. We then turn to efforts to reform the NEPA compliance process. Recent revisions to NEPA’s implementing regulations, the relationship between regulatory changes and the statute itself, and the likely impact on NEPA practice are considered. Implicit in the discussions that will follow is a fundamental question: How well do proposed reforms respond to the litigation related burdens that we identify in section III?

A. NEPA Overview

NEPA was signed into law on January 1, 1970, on the heels of several environmental disasters, including the 250 million gallon Santa Barbara oil spill in
California and the repeated Cuyahoga River fires in Ohio. NEPA also followed shortly after publication of Rachel Carson’s book, *Silent Spring*, which documented how DDT and other pesticides nearly led to the Bald Eagle’s extinction. NEPA’s enactment reflected a sea change in the way the United States looked at the environment and a growing national consensus that federal law and policy had largely ignored the need to protect ecological and aesthetic values.

NEPA begins by declaring that, as a matter of national policy, the federal government “will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; [and] to enrich the understanding of the ecological systems and natural resources important to the Nation[.]”

While other environmental laws advance their statutory objectives by focusing on a particular media, such as water or air and setting emission limits to protect those resources, NEPA adopts a procedural approach designed to ensure that federal agencies consider interrelated environmental impacts before acting. This procedural focus moves decision making out of proverbial silos by defining a comprehensive process for federal agencies making decisions affecting the environment. Under NEPA, “major federal actions significantly affecting the quality of the human environment” must undergo an environmental review before those actions can proceed. As part of this review, agencies must take a hard look at potential impacts, and the public receives an opportunity to offer input before those decisions are made.

The Council on Environmental Quality (CEQ), which was created by NEPA, promulgates regulations to implement NEPA that are applicable to all federal agencies. Agencies may also issue their own regulations to supplement the CEQ regulations and address substantive and procedural mandates imposed by

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3 *See Craig Collins, Toxic Loopholes: Failures and Future Prospects in Environmental Law 55-56 (2010).*


7 *Id.* § 4332(2)(C).

8 *Id.*

9 *Id.* § 4324.

10 Exec. Order. No. 11991, 3 C.F.R. 123 (1978) (directing the CEQ to issue regulations to implement NEPA, and requiring all federal agencies to “comply with the regulations . . . except where compliance would be inconsistent with statutory requirements.”).
other agency-specific statutes. First issued in 1978, and subject to only one narrow amendment until 2020, the CEQ regulations explain how agencies determine whether a proposed federal action is likely to have a significant effect. This results in a tiered system of review under which projects that have the greatest impacts and involve the highest level of scientific uncertainty undergo the most searching review. Projects that are unlikely to involve significant impacts are generally excluded from detailed analysis, and projects with uncertain impacts undergo an intermediate level of review.

When a federal project’s impacts are known to be significant in terms of their context and intensity, compliance requires the most extensive level of review—completion of an Environmental Impact Statement (EIS). The decision to license or permit a project on federal land may, for example, constitute a major federal action.

EISs are prepared in stages. First, the lead agency publishes a Notice of Intent to Prepare an EIS (NOI) in the Federal Register. The NOI describes the action contemplated, as well as the reasons for the action, and solicits public comments on environmental issues raised by the proposed action and alternate means of achieving project goals. After considering public comment, the lead agency prepares a Draft EIS analyzing effects of both the proposed action and usually at least one alternative means of achieving the desired end. The Draft EIS compares the projected impacts from each alternative against the impacts that would result from a continuation of the status quo (the “no action alternative”). After another public comment period, and any appropriate revisions, a Final EIS and Record of Decision (ROD) are issued. If comments on a Draft or Final EIS

11 See e.g., 43 C.F.R. part 46 (the Department of the Interior’s regulations for implementing NEPA).
13 See 51 Fed. Reg. 15618 (April 25, 1986) (eliminating the requirement to conduct a “worst case” analysis); see also 85 Fed. Reg. 43304 (July 16, 2020) (finalizing regulatory amendments that are effective as of September 14, 2020). We include citations to both the pre- and post-2020 amendment versions of the CEQ regulations because of ongoing litigation. For the sake of clarity, we use parentheticals (2019) and (2020) to refer to the pre- and post-2020 amendment versions of the regulations.
14 40 C.F.R. § 1508.9(a)(1) (2019); id. § 1501.5 (2020).
15 Id. § 1502.3 (2019); id. § 1502.3 (2020).
16 Id. § 1508.18(a) (2019); id. § 1508.1(a)(2) (2020).
17 Id. § 1501.7 (2019); id. § 1501.9(d) (2020).
18 Id.
19 Id. §§ 1502.9(a), and 1502.14—1502.16 (2019); id. §§ 1502.9(b) and 1502.16 (2020).
20 Id. § 1502.14(d) (2019); id. §§ 1502.16(a)(1) and 1502.14(c) (2020).
21 Id. § 1502.9(b) (2019); id. §§ 1502.9(c) and 1505.2 (2020).
identify significant issues that escaped consideration, or if major changes are made to the proposed action, the lead agency may prepare a Revised or Supplemental EIS.22

Most federal actions do not involve significant environmental impacts and therefore do not require an EIS.23 In many respects, the objective of modern NEPA practice has evolved into an effort to demonstrate that project impacts fall below the significance threshold, often through mitigation or modifications to a proposed action. Agencies promulgate regulations or otherwise specify “Categorical Exclusions” (CEs)—categories of actions that the agency determines do not have a significant impact on the human environment.24 Actions that fall within one of these regulatory CEs can be approved without an EIS, provided that the action does not involve “extraordinary circumstances.”25 Congress has also created statutory CEs for certain types of oil and natural gas development.26

Actions falling outside the scope of a CE can still avoid preparation of an EIS if a federal agency prepares an Environmental Assessment (EA) determining that the proposed action would not cause significant impacts.27 If projected impacts are not significant, the agency issues a Finding of No Significant Impact (FONSI) and the NEPA review process is complete.28 Alternatively, the agency may issue a “mitigated FONSI,” which includes measures to reduce impacts below the level of

22 Id. § 1502.9(c) (2019); id. § 1502.9(d) (2020).
23 See U.S. Gov’t Accountability Off., GAO-14-370, Report to Congressional Requesters: National Environmental Policy Act: Little Information Exists on NEPA Analyses, 8 (Apr. 2014) (hereinafter GAO-14-370) (noting that EISs are required for less than 1% of all federal actions undergoing NEPA review).
24 40 C.F.R. §§ 1507.3(b)(2)(ii) and 1508.4 (2019); id. § 1501.4(a) (2020). The CEQ’s 2020 regulations no longer address “indirect” and “cumulative” effects, and specifically repeal “cumulative impact.” Id. C.F.R. § 1508.1(g)(3) (2020). This change is highly controversial and a focus of ongoing litigation.
25 Id. § 1508.4 (2019); id. § 1501.4(b) (2020). But note that under the 2020 rules, an agency may still use a CE if “the agency determines that there are circumstances that lessen the impacts or other conditions sufficient to avoid significant effects.” Id. § 1501.4(b)(1) (2020). It is unclear how an agency will determine and document whether “circumstances” reduce effects to below the level of significance, and this too is a question raised in ongoing litigation.
27 40 C.F.R. § 1501.3 (2019); id. § 1501.5 (2020).
28 Id. § 1501.4(c) (2019); id. § 1501.6 (2020).
significance. However, if after completing an EA, the proposed action is determined to have a significant effect, an EIS is required.

NEPA does not explicitly provide a cause of action against federal agencies for alleged statutory noncompliance, and judicial review of agency decisions for failure to comply with NEPA is available under the Administrative Procedure Act (APA). Judicial review under the APA is available because the statute directs that “[a] person suffering legal wrong because of agency action, or adversely affected or aggrieved within the meaning of a relevant statute, is entitled to judicial review thereof.” The APA also provides that “final agency action for which there is no other adequate remedy in a court [is] subject to judicial review.” A challenge to an agency’s decision for failure to comply with NEPA is resolved based on the administrative record which consists of all materials that were before the agency when it made the challenged decision.

Whether a NEPA document adequately discusses the environmental effects of an action is largely a question of fact, and reviewing courts generally apply the “arbitrary and capricious” standard when reviewing NEPA determinations. Following the Court’s opinion in *Citizens to Preserve Overton Park, Inc. v. Volpe*, courts have generally applied a “hard look” test when reviewing the adequacy of an agency’s NEPA review. “Hard look,” in the NEPA context includes identifying the relevant areas of environmental concern, and with respect to the problems that were studied and identified, making a convincing case as to the significance or insignificance of that impact. The inquiry into the adequacy of the agency’s analysis is contextual and case-specific, and a reviewing court must take a “holistic view of what the agency has done to assess environmental impact.” The Ninth Circuit describes the hard look doctrine as requiring a reviewing court to consider

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30 40 C.F.R. § 1501.4(c) (2019); id. § 1502.3 (2020).  
33 Id. § 704.  
34 *Sherwood v. Tennessee Valley Auth.*, 842 F.3d 400 (6th Cir. 2016).  
all foreseeable direct and indirect impacts and discuss adverse effects without minimizing negative side effects.\textsuperscript{39} In the Eleventh Circuit,

The court will overturn an agency's decision as arbitrary and capricious under ‘hard look’ review if it suffers from one of the following: (1) the decision does not rely on the factors that Congress intended the agency to consider; (2) the agency failed entirely to consider an important aspect of the problem; (3) the agency offers an explanation which runs counter to the evidence; or (4) the decision is so implausible that it cannot be the result of differing viewpoints or the result of agency expertise.\textsuperscript{40}

\section*{B. Criticisms & Calls for NEPA Reform}

Many federal agencies, including those that manage our nation’s public lands, expend significant resources complying with NEPA. Some contend that NEPA compliance is unduly burdensome and that environmental activists have use NEPA litigation in a systematic effort to stop or delay wide-ranging federal actions. Some of the harshest criticisms were proffered by staff to the U.S. House of Representatives Committee on Natural Resources in 2018 when they described NEPA as the “weapon of choice”—a form of “lawfare,” used by activists for the “manipulation of the legal system” to “stop, delay, restrict, or impose additional costs on all types of federal action.”\textsuperscript{41}

NEPA’s defenders counter that “for more than four decades, [NEPA] has provided the foundation for countless improvements in our environmental laws. It gives us cleaner water, cleaner air, and a safer and healthier environment.”\textsuperscript{42} Others laud NEPA for the Act’s public involvement opportunities and for requiring

\textsuperscript{39} League of Wilderness Defenders-Blue Mountains Biodiversity Project v. U.S. Forest Serv., 689 F.3d 1060 (9th Cir. 2012).

\textsuperscript{40} Sierra Club v. U.S. Army Corps of Eng’rs, 295 F.3d 1209, 1216 (11th Cir. 2002).

\textsuperscript{41} U.S. House of Representatives Committee on Natural Resources, Majority Committee Staff Hearing Memorandum, The Weaponization of the National Environmental Policy Act and the Implications of Environmental Lawfare 1 (Apr. 23, 2018); see also Chris Esparza, Staff of House Comm. on Natural Resources Majority Committee, Memorandum to all Natural Resources Committee Members 4 (Nov. 27, 2017) (NEPA “has become a magnet for litigation, with hundreds of NEPA-related lawsuits against the federal government filed or open each year.”).

consideration of reasonable alternatives that limit the amount of damage done to the environment.\textsuperscript{43}

Regardless of how people see NEPA, there appears to be broad agreement that NEPA’s implementing regulations, which have received but one substantive amendment since their enactment,\textsuperscript{44} can be modernized in order to ease the burden of NEPA compliance. The question that sows division between NEPA’s critics and supporters is what reform should entail.

We believe that any change to NEPA’s implementing regulations should be grounded on an accurate understanding of how NEPA functions in practice, and we are concerned that recent amendments to the CEQ’s NEPA’s implementing regulations as well as proposed amendments to the U.S. Forest Service’s NEPA regulations appear largely unmoored from empirical information. This is not a philosophical disagreement over jobs versus the environment, but a question of good governance. As we recently wrote elsewhere, “[t]o make changes to a system that we don’t understand and with no way to accurately evaluate the effect of those changes is no way to run a business or a government. Regulatory changes should be grounded in fact and data if we are to avoid significant unintended consequences.”\textsuperscript{45} And on that note, we turn our attention to describing how federal agencies implement NEPA.

\textbf{III. THE BASELINE—NEPA BY THE NUMBERS}

Any discussion of reforming a regulatory program should necessarily begin with an understanding of the nature and extent of that program: How many actions are subject to review each year? Which of the tools (EISs, EAs, and CEs) available to federal agencies receive the most use? How long does NEPA compliance normally take? And what are the most common factors that result in delays completing the NEPA process?

With this information as background, we then turn to NEPA litigation, asking: How much NEPA litigation occurs? What kinds of decisions are challenged? How are cases resolved? And how do government agencies fare in NEPA litigation compared to other kinds of civil litigation in which the federal


\textsuperscript{44} In 1978, the CEQ promulgated Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, 40 C.F.R. § 1500–08, 43 Fed. Reg. 55978 (Nov. 29, 1978). Since then, the CEQ has amended its NEPA regulations substantively only once, eliminating the “worst case” analysis requirement previously found at 40 C.F.R. § 1502.22. See 51 Fed. Reg. 15618 (Apr. 25, 1986).

\textsuperscript{45} John Ruple & Heather Tanana, \textit{Debunking the Myths Behind the NEPA Review Process}, 35 NAT. RESOURCES & ENV’T 1, 14 (2020).
government is a defendant? Answers to those questions can help identify best practices and inform effective regulatory reform.

**A. How Burdensome is NEPA Compliance?**

NEPA regulatory reform proceeds on the assumption that compliance is unduly burdensome. There is no question that tens of thousands of NEPA decisions occur each year, or that the federal government expends significant time and resources on NEPA compliance. In this section, to determine whether change is warranted on this basis, we explore the number of NEPA decisions completed each year and the average amount of time expended on each decision.

1. *How, and How Much, is NEPA Getting Done?*

Logically, we would start this section by saying how many federal agency actions are subject to NEPA review each year, but we cannot. No federal agency tracks government-wide NEPA decision making, and federal agencies are not required to track or report their individual NEPA decisions. We therefore lack hard data and must rely instead on estimates. We estimate that roughly 45,000 NEPA decisions are completed annually. In order to understand how we came to that figure, a more fulsome understanding of NEPA implementation is required.

In 2014, the Government Accountability Office (GAO) estimated that 95% of NEPA documents involve CEs, nearly 5% are EAs, and less than 1% are EISs. We begin by discussing EISs, because they involve the most detailed analysis and therefore require more time and resources to complete compared to more common NEPA documents. We also have high quality data regarding the number of EISs that are prepared annually. We then turn to EAs and CEs.

NEPA’s implementing regulations require agencies to circulate their draft and final EISs, and to notify the Environmental Protection Agency (EPA) of all completed EISs. The EPA then publishes a notice of EIS availability in the Federal

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46 See *e.g.*, 85 Fed. Reg. 43305 (July 16, 2020) (explaining that the CEQ revised NEPA’s implementing regulations in part because “the NEPA process has become increasingly complicated and can involve excessive paperwork and lengthy delays . . . [and] the NEPA process continues to slow or prevent the development of important infrastructure and other projects that require Federal permits or approvals.”).

47 GAO-14-370, *supra* note 31, at 8; *see also* NAT’L ASS’N OF ENVTL. PROF. OF THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) WORKING GROUP, ANNUAL NEPA REPORT 2009, 23 (2010) (noting that under the American Recovery and Reinvestment Act of 2009, 94.9% of projects were authorized after undergoing a CE, 4.6% underwent an EA, and just 0.5% required an EIS).


49 *Id.* § 1506.9 (2019); *id.* § 156.10 (2020).
The EPA maintains a searchable database of every EIS that provides accurate and detailed information on the number of draft, final, and supplemental EISs that are completed every year. According to notices of EIS availability published in the Federal Register and identified using the EPA database, there were an average of 456 EISs produced annually from 2001 through 2019. This included draft, final, and all forms of supplemental EISs.

The total number of EISs prepared annually has declined steadily over the past nineteen years, falling from 616 in 2004 to 315 in 2019, with a production average of 456 EIS per year over the 19-year period of record. Draft EISs account for slightly more than half of all EISs, 235 annually. Final EISs average 218 annually. The distinction between Draft and Final EIS is important because a Draft EIS is not a final agency action under the APA and therefore cannot give rise to litigation.

50 Id. § 1506.10 (2019); id. § 1506.11(a) (2020).
52 Calculated from id.
53 Id. This includes Revised and Supplemental Final EISs.
54 Id.
The number of EISs prepared each year varies dramatically by agency, and the Forest Service routinely prepares more EISs than any other agency.\textsuperscript{55} The BLM is also consistently among the top federal agencies in terms of the number of EISs produced each year,\textsuperscript{56} and together, the four primary federal land management agencies prepared 41.9\% of all EISs from 2001 through 2019.\textsuperscript{57} As with EIS production across the federal government as a whole, the number of EISs prepared annually by the four primary federal land management agencies also declined, led in large part by a reduction in the number of EISs prepared by the Forest Service. Although notably, the number of EISs prepared by the BLM increased slightly over the same period.

\textsuperscript{55} See e.g., CHARLES P. NICHOLSON, NAT’L ASS’N OF ENVTL. PROF., 2018 ANNUAL NEPA REPORT 3 (2019).
\textsuperscript{56} Id.
\textsuperscript{57} Calculated from data available from the EPA EIS Database, supra note 59.
Because federal agencies are not required to report EAs or CEs, we have no comparable source from which to systematically identify NEPA documents, or from which we can accurately count all federal NEPA decisions. We can, however, estimate the number of NEPA decisions completed annually based on the data reported by the GAO.

The GAO estimates that 95% of NEPA documents involve CEs, nearly 5% are EAs, and less than 1% are EISs.\textsuperscript{58} According to notices of EIS availability published in the Federal Register, there were an average of 456 EISs produced annually from 2001 through 2019, included draft, final, and supplemental EISs.\textsuperscript{59} Extrapolating from the number of EISs prepared annually, we estimate that the federal government completes approximately 45,600 final NEPA decisions

\textsuperscript{58} GAO-14-370, \textit{supra} note 31, at 8.
\textsuperscript{59} EPA EIS Database, \textit{supra} note 59.
annually. Specifically, we estimate that federal agencies prepare roughly 43,000 CEs, 2,300 EAs, and 450 EISs per year.

The percentage of NEPA decisions that are evaluated in an EIS versus an EA or CE also varies by agency. The GAO notes that the Department of Energy (DOE) reported 95% of its NEPA documents are CEs, 2.6% were EAs, and 2.4% were EISs. In contrast, the Forest Service is much more likely to prepare an EA, reporting that 78% of its NEPA analyses were CEs, 20% were EAs, and 2% were EISs. The BLM, by comparison, appears exceedingly reluctant to prepare an EIS.

Beginning in FY 2015, the BLM began posting its NEPA documents online. Based on completed NEPA documents from FY 2016 through FY 2019 that were published to the BLM’s e-planning website, the BLM completed 3,492 Determinations of NEPA Adequacy (DNAs), 9,778 CEs, 5,016 EAs, and just 20 EISs. Accordingly, 72.5% of the BLM’s NEPA decisions involve a DNA or CE, 27.4% involve EAs, and just 0.1% involve an EIS.

The BLM appears slightly more willing to prepare EISs for hard rock mining projects than for federal actions as a whole, and extremely unlikely to prepare EISs for oil and gas projects. Indeed, over the past four years, the BLM completed NEPA documentation for 4,600 oil and gas projects, only two of which

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60 The estimate used in this paper is lower than the estimate reported in John C. Ruple & Kayle M. Race, Measuring the NEPA Litigation Burden: A Review of 1,499 Federal Court Cases, 50 ENVTL. L. 479 (2020), which estimated annual NEPA production based on the number of EISs completed from 2001 through 2013 rather than 2001 through 2019, as used herein.

61 Our estimates do not total to 45,600 because of rounding, and because we treat EISs and 1% of all NEPA decisions even though the CEQ describes them as less than 1%. Our estimates are therefore a conservative estimate of what is likely minimum annual NEPA production. Our estimates also do not include Determinations of NEPA Adequacy that are routinely completed by the Bureau of Land Management.

62 GAO-14-370, supra note 31, at 8.

63 Id.

64 See BLM National NEPA Register, BUREAU OF LAND MGMT., https://eplanning.blm.gov/epl-front-office/eplanning/lup/lup_register.do (last visited Aug. 20, 2020). Unless noted otherwise, we extrapolated from the GAO’s figures in order to estimate the BLM’s total NEPA burden. We did not extrapolate from the BLM’s figures because of the short period of BLM data (4 years) and because we do not know if all BLM NEPA documents were reported on the e-planning web site.

65 We limited our estimate to decisions starting in FY 2016 because data for FY 2015 appeared to be incomplete.

66 According to the BLM Manual, a DNA is “a worksheet for determining and documenting that a new, site-specific proposed action both conforms to the existing land use plan(s) and is adequately analyzed in existing NEPA documents.” BUREAU OF LAND MGMT., LAND USE PLANNING MANUAL 1601 (2000).
were evaluated in an EIS. It appears that the BLM reserves EISs almost exclusively for Land Management Plans covering expansive landscapes. The BLM’s NEPA compliance efforts are therefore already heavily streamlined.

Table 1. All BLM NEPA Decisions Completed Per Fiscal Year

<table>
<thead>
<tr>
<th></th>
<th>EISs</th>
<th>EAs</th>
<th>CE</th>
<th>DNAs</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>2</td>
<td>1,140</td>
<td>2,192</td>
<td>859</td>
<td>4,193</td>
</tr>
<tr>
<td>2018</td>
<td>4</td>
<td>1,263</td>
<td>2,822</td>
<td>1,007</td>
<td>5,096</td>
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<tr>
<td>2017</td>
<td>1</td>
<td>1,361</td>
<td>2,545</td>
<td>886</td>
<td>4,793</td>
</tr>
<tr>
<td>2016</td>
<td>13</td>
<td>1,252</td>
<td>2,219</td>
<td>740</td>
<td>4,224</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>5,016</td>
<td>9,778</td>
<td>3,492</td>
<td>18,306</td>
</tr>
<tr>
<td>Average</td>
<td>5</td>
<td>1,254</td>
<td>2,444.5</td>
<td>873</td>
<td>4,577</td>
</tr>
<tr>
<td>% of Total</td>
<td>0.1%</td>
<td>27.4%</td>
<td>53.4%</td>
<td>19.1%</td>
<td>100.0%</td>
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</table>

Table 2. BLM Mineral Program NEPA Decisions Completed Per Fiscal Year

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<th>EISs</th>
<th>EAs</th>
<th>CE</th>
<th>DNAs</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>-</td>
<td>36</td>
<td>74</td>
<td>38</td>
<td>148</td>
</tr>
<tr>
<td>2018</td>
<td>1</td>
<td>62</td>
<td>79</td>
<td>47</td>
<td>189</td>
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<tr>
<td>2017</td>
<td>-</td>
<td>58</td>
<td>83</td>
<td>45</td>
<td>186</td>
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<tr>
<td>2016</td>
<td>5</td>
<td>43</td>
<td>75</td>
<td>39</td>
<td>162</td>
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<tr>
<td>Total</td>
<td>6</td>
<td>199</td>
<td>311</td>
<td>169</td>
<td>685</td>
</tr>
<tr>
<td>Average</td>
<td>1.5</td>
<td>49.75</td>
<td>77.75</td>
<td>42.25</td>
<td>171.25</td>
</tr>
<tr>
<td>% of Total</td>
<td>0.9%</td>
<td>29.1%</td>
<td>45.4%</td>
<td>24.7%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Table 3. BLM Oil & Gas NEPA Decisions Completed Per Fiscal Year

<table>
<thead>
<tr>
<th></th>
<th>EISs</th>
<th>EAs</th>
<th>CE</th>
<th>DNAs</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>-</td>
<td>630</td>
<td>370</td>
<td>266</td>
<td>1,266</td>
</tr>
<tr>
<td>2018</td>
<td>-</td>
<td>561</td>
<td>433</td>
<td>229</td>
<td>1,223</td>
</tr>
<tr>
<td>2017</td>
<td>-</td>
<td>578</td>
<td>341</td>
<td>193</td>
<td>1,112</td>
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<tr>
<td>2016</td>
<td>2</td>
<td>668</td>
<td>229</td>
<td>100</td>
<td>999</td>
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<tr>
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<td>1,373</td>
<td>788</td>
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<td>343.25</td>
<td>197</td>
<td>1150</td>
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<tr>
<td>% of Total</td>
<td>&lt;0.1%</td>
<td>53.0%</td>
<td>29.9%</td>
<td>17.1%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Electronic copy available at: https://ssrn.com/abstract=3716579
2. How Long Does NEPA Compliance Take?

Common actions that agencies have evaluated and determined do not pose significant environmental impacts can normally be approved quite quickly in a CE, provided that they do not involve any extraordinary circumstances. Actions that do not qualify for a CE and that are unlikely to rise to the level of significance requiring an EIS are normally subject to the intermediate level of review contained in an EA. Preparation times can vary dramatically depending on the level of analysis and between agencies.

A CE can take as little as 1 to 2 days to complete, as reported by the DOE and the Department of the Interior’s Office of Surface Mining; while the Forest Service reports taking an average of 177 days to complete CEs.\textsuperscript{67} EAs take longer to complete, ranging from 1 month for the Bureau of Indian Affairs, 4 months for the Department of Interior’s Office of Surface Mining, and 13 months for the Department of Energy, to 18 months for the Forest Service.\textsuperscript{68}

Across all federal agencies, EISs take the longest and have the greatest variability in completion times. The CEQ reviewed 1,161 EISs completed from 2010 through 2017 and reported a median preparation time of 3.6 years and an average (mean) of 4.5 years from issuance of an NOI to publication of a Record of Decision.\textsuperscript{69} The fastest 25% of EISs took less than 2.2 years to complete, and the fastest EIS completion time overall was 1 year (achieved by 36 out of 1,161 EISs between 2010 and 2017).\textsuperscript{70} By contrast, the slowest 25% took more than 6.0 years to complete.\textsuperscript{71} Most of the time involved in EIS preparation is spent between publication of the NOI and release of the Draft EIS, a mean of 2.6 years, compared to 1.4 years to move from the Draft to Final EIS, and 0.4 years to move from FEIS to ROD.\textsuperscript{72} This may indicate that while responding to public comment can consume significant resources, far more time is spent on impact analysis.

Mean completion times can be skewed by projects, like the Yucca Mountain Geologic Repository for Radioactive Waste, that are uniquely complicated and fraught with political peril.\textsuperscript{73} Data from the National Association of Environmental

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\textsuperscript{67} GAO-14-370, supra note 31, at 16.
\textsuperscript{68} Id. at 15–16.
\textsuperscript{70} Id. at 4.
\textsuperscript{71} Id.
\textsuperscript{72} Id. at 5.
\textsuperscript{73} The NOI for the Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste Construction Operation Monitoring and Eventually Closing a Geologic Repository at Yucca Mountain Nye County, Nevada was published on August 13, 1999 and 11 draft, final, or supplemental EISs followed.
Professionals (NAEP) shows that from 1997 through 2016, more EISs were completed within 1 to 2 years than any other time period. The time required to complete an EIS has, however, increased and NAEP found that the most common time period for EISs completed in 2018 EISs was 2 to 3 years.

Three caveats are important: First, data on the time required to prepare an EIS does not indicate how much work was completed before the NOI. Many agencies frontload their NEPA efforts by meeting with stakeholders and cooperating agencies, documenting existing conditions, or investigating project impacts and potential alternatives to the proposed action before an NOI is ever published.

Second, delays that occur during the environmental impact analysis may have nothing to do with NEPA. Both the Congressional Research Service (CRS) and the GAO recognize that NEPA often functions as an “umbrella” statute and that studies, reviews, or consultations required under other environmental laws are routinely integrated into the NEPA process. This makes it difficult to distinguish between time spent on NEPA and on concurrent efforts to comply with other laws. It also means that time spent complying with other laws may delay NEPA. As the CRS explains, “[t]he need to comply with another environmental law, such as the Clean Water Act or Endangered Species Act, may be identified within the framework of the NEPA process, but NEPA itself is not the source of the obligation. If, hypothetically, the requirement to comply with NEPA were removed, compliance with each applicable law would still be required.”

The GAO also highlights the importance of sources of delay outside NEPA procedures, such as engineering requirements and holdups associated with obtaining nonfederal approvals. A 2012 CRS study of EIS’s prepared by the Federal Highway Administration specifically found that delays were “more often tied to local/state and project-specific factors, primarily local/state agency priorities, project funding levels, local opposition to a project, project complexity, or late changes in project scope [than NEPA].”

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77 GAO-14-370, supra note 31, at 18-19. CRS NEPA Background, supra note 84, at 8-9.
78 CRS NEPA Background, supra note 84, at 2.
79 GAO-14-370, supra note 31, at 15, 19.
80 Congressional Research Service, The Role of the Environmental review Process in Federally
The Forest Service has been uniquely candid about delays in completing its NEPA analysis, explaining that NEPA projects in Idaho, Illinois, Michigan, Minnesota, Montana, New Hampshire, New Mexico, Pennsylvania, and Utah were all delayed during 2012 or 2013 when agency resources were redirected to wildfire related programs. Comparable information is unavailable for other years, but between 1999 and 2015, the Forest Service was forced to reallocate funds in order to address wildfire management needs, resulting in a whopping 64% reduction in land management planning funding. This reduction may help explain the steep decline in Forest Service EISs over that period. Reallocation of agency resources away from NEPA continues to be a problem, and delays like those identified in 2012 and 2013 presumably continue.

Third, federal agencies have become more discerning in identifying the actions that require review in an EIS. This is reflected both in the number of EISs prepared nationally, which has fallen by almost 40 percent over the last decade, and a corresponding rise in CEs and EAs. As in the case of the Forest Service, this may reflect practical necessity in the face of declining budgets. As federal agencies have increased the threshold for preparing an EIS, the complexity of the environmental issues that are addressed in those EISs has also increased. More complex evaluations invariably require more time to complete.

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**Funded Highway Projects: Background and Issues for Congress Summary (2012).**


83 Between 1998 and 2015, the portion of the Forest Service’s budget that was devoted to wildfire management more than tripled, requiring the Service to redirect funds from other areas and resulting in a 32% reduction in funds that were available for National Forest System management. Staffing levels fell by 7,000 or 39% over that same time period. Id. at 6-7.

84 See e.g., Forest Service Proposed NEPA Rules, 84 Fed. Reg. 27544 (June 13, 2019) (justifying regulation changes in part because of reduced agency resources).

85 See supra, section III.A.1.
3. **Does NEPA Delay Agency Decisions?**

There is no question that NEPA compliance consumes significant agency time and resources. It is also clear that many federal actions that trigger NEPA review also trigger permitting requirements contained in other federal, state, or local laws. It is therefore important to ask whether NEPA compliance represents an additive burden or an opportunity to coordinate permitting efforts. It is also helpful to ask whether NEPA is more efficient than the alternative. A circuit split on NEPA’s applicability to Endangered Species Act critical habitat designations creates a natural test of the extent to which NEPA delays federal agency action.

Critical habitat designation under the ESA is a federal action that may impact environmental quality. In 1981, the Sixth Circuit ruled that the Fish and Wildlife Service was not required to prepare an EIS before listing a species as threatened or endangered under the ESA.86 Two years later, the Fish and Wildlife Service issued a “rule-related notice” indicating that a NEPA analysis was not

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required for critical habitat designations either.\textsuperscript{87} In 1995, the Ninth Circuit upheld the Service’s approach, explaining:

NEPA does not apply to the Secretary’s decision to designate a habitat for an endangered or threatened species under the ESA because (1) Congress intended that the ESA critical habitat procedures displace the NEPA requirements, (2) NEPA does not apply to actions that do not change the physical environment, and (3) to apply NEPA to the ESA would further the purposes of neither statute.\textsuperscript{88}

But in 1996, the Tenth Circuit created a split with the Ninth Circuit by holding that critical habitat designations do require NEPA analysis.\textsuperscript{89} The Tenth Circuit concluded that the procedural requirements of the ESA did not displace NEPA’s procedural requirements, that the critical habitat designation could result in potentially significant environmental impacts, and that an EA would help the Service determine those effects; therefore, NEPA compliments rather than displaces the ESA.\textsuperscript{90}

From 1999 through 2017, the Fish and Wildlife Service and NOAA Fisheries promulgated critical habitat rules for 643 ESA listed species.\textsuperscript{91} Because of the circuit split, rules for species with habitat within the Tenth Circuit’s jurisdiction underwent NEPA analysis while rules for species residing outside of the Tenth Circuit did not.\textsuperscript{92} Comparing the two groups of cases, critical habitat rules that underwent NEPA review were completed more than three months \textit{faster} than rules that did not undergo NEPA review.\textsuperscript{93}

\textsuperscript{87} 48 Fed. Reg. at 49244.
\textsuperscript{88} \textit{Douglas County v. Babbitt}, 48 F.3d 1495, 1507-08 (9th Cir. 1995).
\textsuperscript{89} \textit{Catron Cty. v. U.S. Fish & Wildlife Serv.}, 75 F.3d 1429, 1439 (10th Cir. 1996).
\textsuperscript{90} \textit{Id.} at 1436.
\textsuperscript{92} See \textit{Otay Mesa Prop., L.P. v. U.S. Dep’t of the Interior}, 144 F. Supp. 3d 35, 43 (D.D.C. 2015) (explaining that the Service has taken the position that “outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses as defined by NEPA in connection with designating critical habitat under the Act”).
\textsuperscript{93} John C. Ruple, Michael J. Tanana & Merrill M. Williams, \textit{Does NEPA Help or Harm ESA Critical Habitat Designations? An Assessment of Over 600 Critical Habitat Rules}, 46
While it isn’t clear why decisions that underwent NEPA were completed faster, it may be that the NEPA process acts as a mechanism to coordinate parallel efforts that are being undertaken by multiple regulatory agencies. Increased coordination may reduce duplicated efforts. NEPA may also create a mechanism for addressing issues earlier in the permitting process, when project modifications are easier and less costly. Finally, other permitting decisions, like permits to fill wetlands, could tier to the NEPA analysis or utilize information gathered for an EA or EIS.

It is also noteworthy that many of the delays that can arise during the NEPA process are attributable to independent events. As the Congressional Research Service recently explained:

Depending on the project, local and state issues often have the most influence on whether a given project moves forward relatively quickly or takes longer than anticipated. Those issues include the project’s level of priority among others proposed in the state; changes in funding availability (issues with funding availability will also vary depending on whether the project’s funding source is a private or public entity); and local controversy or opposition to the project (which may or may not be connected to environmental issues).

This is not to say that delays are insignificant, but rather that reform efforts must be careful to accurately identify the cause of delay and treat the root causes rather than the symptom if reform efforts are to meet with success.

4. Does NEPA Result in Less Environmentally Harmful Decisions?

We readily concede that federal agencies expend significant resources on NEPA compliance and that reducing the burden of compliance is an important goal. But burden alone, we believe, should not be a basis for regulatory reform. The question is whether the benefits justify the burden of compliance.

Most of the literature addressing NEPA’s benefits is either anecdotal in nature or drawn from interviews and focus groups. While this literature is
valuable, we recognize the hypocrisy in relying on such information while simultaneously criticizing others for attacking NEPA based on isolated examples that are unmoored from empirical data. Research quantifying both the burden and benefits should be a priority if we are to ensure that reforms result in improved outcomes.

To begin the discussion, we note two recent studies that reviewed EISs for BLM Resource Management Plans and for oil and gas field developments. These studies compared the impacts anticipated under the proposed action in the Draft EIS to what was authorized in the ROD. The difference between the two iterations reflects change occurring during the NEPA process. For the oil and gas EISs, impacts to all measured indicators were reduced between the Draft EIS and the ROD. Statistically significant reductions (p < .05 one-tailed) occurred for surface disturbance and NO\textsubscript{X} emission (both -24%). Emission of PM\textsubscript{10} (-23%) and PM\textsubscript{2.5} (-24%), reductions in the number of wells drilled (<1%), and miles of pipeline built (-2%) were all trending towards significance (p < .10 one-tailed). Impacts to wetlands were reduced dramatically between the Draft EIS and the ROD, though these reductions were not statistically significant.

NO\textsubscript{X}, PM\textsubscript{10}, and PM\textsubscript{2.5} emissions as well as wetland impacts are all common concerns associated with oil and gas development, and all experienced large reductions. In contrast, SO\textsubscript{2} and CO are subject to action-forcing regulation under the Clean Air Act but were generally well below national ambient air quality standards, and both experienced comparatively minor impact reductions (-5%). Lower rates of emission reduction may indicate that agencies focus their efforts on pollutants of local concern, which is consistent with NEPA’s mandate to focus on significant impacts.

Transitioning towards directional drilling and consolidating well pads—a change that appears to have been driven by technological advancements and NEPA comments rather than substantive environmental laws such as the Clean Air Act or Clean Water Act— resulted in 13% reductions in permanent surface disturbance.

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97 Id. at 44.
98 Id.
99 Id.
100 NEPA—Substantive Effectiveness Under a Procedural Mandate, supra note 104, at 44.
101 Id. at 46.
102 Id. at 44.
103 40 C.F.R. § 1500.4(c).
and 10% reductions in temporary surface disturbance.104 Both disturbance reductions were statistically significant, indicating that meaningful reductions can likely occur solely under NEPA’s procedural mandate.

Critically, for oil and gas projects, job creation and state and local tax revenue increased in the face of enhanced environmental protections, though the rate of growth slowed as environmental protections increased.105 A review of the BLM’s Resource Management Plans fared similarly, reflecting a statistically significant increase in the application of more protective surface use stipulations without a significant change in either the projected number of jobs created or the number of oil and gas wells that could be drilled.106 In fact, the number of jobs created and wells drilled increased by 8% and 2%, respectively, despite strengthened environmental protections.107 Overall, reductions in environmental impact were achieved without a corresponding reduction in economic benefit.

To be clear, we are not arguing that NEPA compliance is without costs. We contend only that it would be a mistake to look solely to the cost of compliance without giving equal consideration to the benefits that flow from NEPA compliance. Of course, the parties who bear the cost of NEPA compliance may not be the ones who reap the majority of benefits, though there are numerous examples of proponents benefitting from the hard look required by NEPA.108 This challenge,

104 NEPA—Substantive Effectiveness Under a Procedural Mandate, supra note 104, at 44.
105 Id. at 44.
107 Id.
108 Identification of issues earlier in a development process, when changes are easier and less expensive to make, is a commonly cited NEPA benefit. See EXAMPLES OF BENEFITS FROM THE NEPA PROCESS FOR ARRA FUNDED ACTIVITIES, WHITE HOUSE COUNCIL ON ENVIRONMENTAL QUALITY (2011). Examples of more concrete savings include an EA prepared by the Department of Energy (DOE) for the Savannah River Site that “resulted in solutions that were much more cost and time efficient, and limited the expected transportation impacts over the long term in the surrounding communities.” Id. at 8. At the Transuranic Waste Processing Center located within the Oak Ridge Reservation in Oak Ridge, Tennessee, “[e]arly consideration of environmental information during the review of proposals for the project helped DOE avoid costly analysis of alternatives that may not have been viable.” Id. at 9. At Brookhaven National Laboratory in Upton, New York, NEPA analysis helped identify previously unanticipated state permitting requirements and material supply issues, both of which were resolved faster because of NEPA. Id. An EIS prepared by the Federal Aviation Administration resulted in improved energy efficiency at the St. George, UT airport. Id. at 16. NASA, in conducting hurricane repairs at the Johnson Space Center “is expected to gain between 20 to 30 percent in energy efficiency on each building.
however, extends to virtually all government programs. Minimizing externalities is, after all, one of the primary reasons that we have governments.

B. How Burdensome is NEPA Litigation?

CEQ maintained a NEPA litigation database summarizing cases from 2001 through 2013. NAEP also tracks NEPA litigation, and we rely on information contained in their annual reports to describe NEPA litigation that occurred in federal appellate courts from 2009 through 2018. Differences in methodology and period of coverage in the data provided by these two sources prevent direct comparison, though the two datasets provide a complimentary picture of NEPA litigation.

1. How Much NEPA Litigation Actually Occurs?

Litigation over NEPA decisions is surprisingly rare. Based on CEQ data summarizing all NEPA cases filed between 2001 and 2013, an average of 115 NEPA cases were filed annually, including trial and appellate court cases. Most NEPA cases were resolved at the district court level without appeal. With federal agencies completing an estimated 51,300 NEPA decisions annually between 2001 and 2013, an average of just 1 out of every 450 NEPA decisions (0.22%) result in litigation. The actual rate of challenges to NEPA decisions is almost certainly lower because this dataset does not distinguish between trial and appellate court litigation and therefore counts separate proceedings in the same case as unique lawsuits. Accordingly, we almost certainly overestimate the actual rate of legal challenges to NEPA decisions and our estimates can be viewed as a conservative upper estimate. However, even applying these conservative assumptions, the rate at which NEPA decisions are challenged is quite low.

where Recovery Act funded roof repairs are being undertaken.” Id. at 17. The Army Corps of Engineers reports that “[a]nalysist conducted in conjunction with the NEPA [for dredging the Loraine Harbor in Ohio] verified that a greater volume of dredged material was suitable for unconfined open-lake placement thereby obviating the need to provide additional confined disposal capacity than was previously planned through the Lorain Harbor Dredged Material Management Plan.” Id. at 6.

109 We applied the same methodology used in section III.A.1. in order to estimate the rate at which NEPA decisions are challenged, but we relied on an estimated average annual NEPA decision completion period from 2001 through 2013 in order to maintain the same averaging period in both our numerator and denominator. Dividing the average number of NEPA case filings from 2001 through 2013 (115) by our estimate of the number of final NEPA decisions completed over the same period (51,300) indicates that on average, just 0.22% of all final NEPA decisions are challenged in federal court.
The rate at which NEPA decisions are challenged, while low, declined steadily over the thirteen-year period reflected in the CEQ data, falling from 138 in 2001 to 96 in 2013. NEPA case filings were below the thirteen-year average during each of the last five years for which the CEQ reported litigation data. Challenges to NEPA decisions completed by the four federal land management agencies also declined from 2001 through 2013, though not quite at the pace of decline experienced by other agencies.

**Figure 4.**

From 2005 through 2013, the CEQ also reported data on the type of NEPA document at issue in litigation. Of the 729 court dispositions for which the CEQ reported on the level of analysis at issue, 379 (52.0%) involved EISs or supplemental EISs. Of the remaining cases, 231 (31.7%) involved EAs, 66 (9.1%) involved CEs, and 53 (7.3%) involved a threshold determination of whether NEPA analysis was required.

We can estimate the rate at which federal courts issue determinations on NEPA adequacy for each class of NEPA document by dividing the number of
NEPA case dispositions over a set period of time by the estimated total number of NEPA documents that were prepared over that same time period. But because of the time that occurs between the point at which an agency finalizes its NEPA decision and the point in time when a court issues its final opinion on that document, we must offset the data for those two periods of time.

NEPA litigation takes, on average, 23 months to complete.110 We therefore divided the total number of NEPA case dispositions from 2005 through 2013 by the estimated total number of NEPA documents prepared from 2003 through 2011. When we do so we find that 16.7% of EISs were subject to litigation that concluded in a final judgment on the adequacy of the EIS. EAs and CEs were far less likely to be subject to litigation resulting in final judgment on NEPA adequacy, with EAs and CEs being subject to litigation that concluded in a final judgment on the adequacy of the analysis 1.0% and 0.01%, respectively.

In addition to NEPA litigation data provided by the CEQ, NAEP also tracks federal appellate court litigation involving NEPA and reports statistics in their annual NEPA report. We reviewed the NAEP’s annual NEPA reports from 2009 through 2018 to identify the number of appellate court opinions issued each year. Differences between courts precludes direct comparison between the CEQ and NAEP datasets, but both the volume and trend in appellate litigation involving NEPA are notable.

From 2009 through 2018, federal appellate courts issued a total of 235 opinions involving NEPA decisions, or an average of 23.5 decisions each year. Of these appellate opinions, 100 (42.6%) involved EISs, for an average of 10 opinions on EISs annually. Of the remaining cases, an average of 9.4 (40.0%) per year involved EAs, 1.8 (7.7%) involved CEs, and 2.3 (9.8%) involved a threshold determination of whether NEPA was required at all.

In contrast to the trend in all court filings, the average number of appellate court cases increased slightly over the period covered by the NAEP dataset. It appears that the different trend evidenced by the two datasets may be attributable to an increase in appellate court cases during the last three years of the analysis period.

<table>
<thead>
<tr>
<th>Level of NEPA Analysis Involved in Litigation</th>
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</thead>
<tbody>
<tr>
<td><strong>CEQ</strong></td>
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<tr>
<td>All Courts 2001-13</td>
</tr>
<tr>
<td>NAEP App. Cts. 2009-18</td>
</tr>
<tr>
<td><strong>EISs</strong></td>
</tr>
<tr>
<td><strong>EAs</strong></td>
</tr>
<tr>
<td><strong>CEs</strong></td>
</tr>
<tr>
<td><strong>NEPA Applicability</strong></td>
</tr>
</tbody>
</table>

Electronic copy available at: https://ssrn.com/abstract=3716579
Looking more closely, NEPA litigation at the trial court level takes an average of 23 months to conclude,\textsuperscript{111} and just over 9 months are required to complete appellate litigation (from filing of the notice of appeal to final disposition).\textsuperscript{112} If we assume a three year lag between the year in which an agency rendered a decision on an EIS and the year in which the court of appeals ruled on a NEPA decision, we can roughly estimate the rate at which NEPA decisions are subjected to appellate court litigation.

Utilizing EPA data on the number of EISs completed from 2006 through 2015, we were able to calculate that federal agencies issued 2,235 final EIS decisions,\textsuperscript{113} or an average of 224 annually over the period corresponding to the NAEP dataset. With an average of 10 appellate opinions on EISs and an average of 224 final EIS decisions annually over that period, we can estimate that approximately 4.5\% of EISs result in appellate litigation.

Assuming that EAs and CEs account for approximately 5\% and 95\% of all NEPA decisions, as reported by the GAO, and estimating the number of EAs and CEs based on the number of EISs reported by the EPA as we did above, we find that there were an average of 2,300 EAs and 43,800 CEs completed annually from 2006 through 2015. As reported by NAEP, there were an average of 9.4 and 1.8 federal appellate court opinions involving EAs and CEs, respectively, issued from 2009 through 2018. Accordingly, just 0.4\% of EAs and 0.004\% of CEs result in appellate court litigation.

Table 5.
Estimated Percent of NEPA Decisions Subject to Litigation
\begin{tabular}{|c|c|c|}
\hline
 & All Courts & App. Cts. \\
\hline
EISs & 16.7\% & 4.5\% \\
EAs & 1.0\% & 0.4\% \\
CEs & 0.01\% & 0.004\% \\
\hline
\end{tabular}

\textsuperscript{111} Id.
\textsuperscript{113} Final EISs, Supplemental Final EISs, or Revised Final EISs.
2. How Are NEPA Challenges Resolved?

From 2001 through 2013, the CEQ tracked NEPA litigation outcomes, placing decisions in one of eight non-exclusive categories.\(^{114}\) Looking exclusively at final judgments constituting a clear outcome—judgments for the defendant (government) and remands—the CEQ reported 832 wins and 226 remands, representing a 78.6% win rate.\(^{115}\) Federal agency win rates generally increased over that period with federal agencies prevailing in about 75% or more of cases every year except for 2006, when success rates fell to 63.6%.

NAEP tracks federal appellate court litigation involving NEPA and codes litigation outcomes as falling within one of three categories: federal agency complete wins, federal agency partial wins, and federal agency losses. From 2009 through 2018, the federal government scored complete wins in 76.2% of appellate cases involving NEPA and complete or partial wins in 82.1% of NEPA cases. As seen in Figure 6, the federal government’s complete win rate was above 60% in all years except for 2011, when the win rate fell precipitously, to just 30.8% (38.5% when considering both wins and partial wins).

One possible explanation for this dip involves NEPA decisions that may have been rushed to completion near the end of the Bush Administration, in 2008. As noted earlier, we estimate that there is a roughly three-year lag between issuance of a final agency decision and issuance of an appellate court ruling on that decision. It may be that the Bush Administration sought to complete NEPA reviews for particularly controversial projects, or projects implementing policies that were deemed less likely to receive support from a new administration, before a new President was sworn into office. If this is true, the higher rate of challenge, and appellate court reversals three years after the end of an administration, could be due to either increased controversy surrounding certain projects or analysis that may have suffered because of artificially tight timelines.

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\(^{114}\) These categories are: judgments for the defendant (government), temporary restraining orders, preliminary injunctions, permanent injunctions, remands, dismissals with- and without a settlement, and other.

\(^{115}\) In a recent publication, one of the authors of this paper attempted to lump more of the decisions into wins and losses. See Ruple & Race, supra note 68. We did not adopt that approach here because of concerns that comingling temporary and final relief together would result in double counting.
We note that this pattern does not appear to hold in all instances based on our analysis of the CEQ data, which largely involves trial court opinions. When considering trial court opinions, we would anticipate a roughly two-year lag between the final agency action and a trial court opinion. The notable dip in wins that occurred in 2006, two years after an election is consistent with our hypothesis that an administration may rush to issue decisions before an election. Federal agencies, however, prevailed at higher than expected rates in NEPA litigation during 2010, which was two years after the 2008 Presidential election.

Politics clearly has the potential to play a role in the kinds of actions that are proposed by federal agencies, and the guidance issued to direct agency NEPA processes. Politics also could impact the way in which federal agencies undertake their NEPA analysis, and the way in which courts view those decisions. Further research therefore appears warranted in order to inform policy decisions and NEPA practice.

116 See Adelman & Glicksman, supra note 119 and accompanying text.

117 Id.
The CEQ’s data is also useful in understanding the grounds upon which NEPA cases are resolved. From 2005 through 2013, the CEQ distinguishes between decisions in which the defendant (government) prevailed and decisions in which the plaintiffs prevailed. The CEQ further divided those wins and losses based on whether the case was resolved on one of six grounds: jurisdictional, whether NEPA was required, CE adequacy, EA adequacy, EIS adequacy, and supplemental EIS adequacy.

As shown in Table 6, most cases (76.9%) were resolved based on a review of the adequacy of the agency’s NEPA analysis. The more demanding the review, the more likely courts were to reverse those decisions. It is unclear whether this reflects application of a less deferential standard to EISs and Supplemental EISs, or whether the more intense level of scrutiny associated with an EIS is more likely to daylight problems with the underlying analysis and agency reasoning.

Conventional wisdom suggests that EAs are less defensible than EISs because EAs must result in a “finding of no significant impact,” while an EIS can
lead to project approval even where significant environmental impacts are likely to occur. However, with the federal government prevailing at a higher rate in challenges to EAs than in challenges to EISs, the data does not support conventional wisdom.

### Table 6.

**Basis for Resolution of Federal Court NEPA Litigation 2005-2013**

<table>
<thead>
<tr>
<th>Dispositions</th>
<th>% of Total Dispositions</th>
<th>Government Win Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jurisdictional</td>
<td>151</td>
<td>17.2%</td>
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<tr>
<td>NEPA required?</td>
<td>53</td>
<td>6.0%</td>
</tr>
<tr>
<td>CE adequacy</td>
<td>66</td>
<td>7.5%</td>
</tr>
<tr>
<td>EA adequacy</td>
<td>231</td>
<td>26.3%</td>
</tr>
<tr>
<td>EIS adequacy</td>
<td>312</td>
<td>35.5%</td>
</tr>
<tr>
<td>SEIS adequacy</td>
<td>67</td>
<td>7.6%</td>
</tr>
<tr>
<td>Total Dispositions</td>
<td>880</td>
<td>--</td>
</tr>
</tbody>
</table>

3. **NEPA Compared to Civil Environmental Litigation with the Government as a Defendant**

To better understand how NEPA litigation impacts federal agencies, and how agencies fare in NEPA litigation compared to other types of litigation, we reviewed information on civil litigation handled by the Office of the U.S. Attorney from 2001 through 2017. These Annual Statistical Reports provide the number of civil cases in federal court that involve environmental or lands claims and where the federal government was the defendant. We then compared the federal government’s success rate in these cases to the government’s success rate in NEPA litigation.

The U.S. Attorneys Reports place litigation outcomes into one of five categories: federal wins (25.6%), settlements (11.4%), federal losses (11.3%), dismissals (19.2%), and other (32.5%). “Other,” unfortunately, was the largest category of decisions. “Other” outcomes aside, there was little discernable trend in the rate at which the Department of Justice prevailed or lost in environmental/lands litigation. Settlements did increase slightly over time, as did dismissals, which spiked in 2016. See Figure 8.

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118 Date compiled from United States Attorneys’ Annual Statistical Report [Fiscal Years], available at: https://www.justice.gov/usaos/resources/annual-statistical-reports.
119 Id. at Table 5.
The CEQ, in contrast, utilized eight non-exclusive categories: judgments for the defendant (government), temporary restraining orders, preliminary injunctions, permanent injunctions, remands, dismissals with a settlement, dismissals without a settlement, and other. To facilitate a comparison between the two datasets, we excluded “other” from both datasets. For the CEQ data, we combined dismissals with and without settlement, we excluded preliminary relief, and we excluded permanent injunctions because they are presumably associated with a remand to address an error and therefore redundant. After making these changes we found that based on both datasets, the federal government prevails at about the same rate: 45.6% to 47.6%. Federal agencies are, however, less likely to settle or obtain a dismissal in NEPA litigation, and accordingly, lose more frequently in NEPA litigation than in environmental/lands litigation generally.

An important caveat associated with this comparison is that the U.S. Attorneys Reports do not define what cases are included in the “environmental/lands” category. NEPA cases may be included in the
environmental/lands category, which regularly involves about four times as many cases as annual NEPA litigation.

Table 7.
Comparison of Litigation Outcomes: Civil Environmental/Lands Litigation with Federal Defendants and NEPA Litigation

<table>
<thead>
<tr>
<th></th>
<th>Environmental/Lands 2001-2017</th>
<th>NEPA 2001-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Win</td>
<td>45.6%</td>
<td>47.6%</td>
</tr>
<tr>
<td>Settlement</td>
<td>18.2%</td>
<td>13.4%</td>
</tr>
<tr>
<td>Federal Loss</td>
<td>10.8%</td>
<td>19.7%</td>
</tr>
<tr>
<td>Dismissal</td>
<td>25.5%</td>
<td>19.4%</td>
</tr>
</tbody>
</table>

IV. THOUGHTS ON “STREAMLINING”

The federal government should continually seek to reduce administrative burdens and costs wherever possible, provided those reductions do not undermine achievement of statutory obligations, and NEPA is no exception. The sheer number of NEPA decisions completed every year attests to the amount of time and effort expended complying with NEPA. Fixation on cost reduction should not, however, blind us to either the benefits foregone or the consequences of changing NEPA’s implementing regulations. There are several areas where data appears to indicate that NEPA “streamlining,” as currently envisioned, is likely to result in increased litigation and project delays. We focus here on two that we find most concerning.

A. The “Hard Look Requirement”

When reviewing a NEPA decision, courts consider whether the agency took the requisite “hard look” at likely impacts. The hard look standard grows not from NEPA’s implementing regulations, but from section 101 of the Act itself. Section 101 is Congress’ declaration of our national environmental policy, and it is axiomatic that an agency cannot change a policy that has been enacted into law by passing a contrary regulation.


121 42 U.S.C. § 4331. “The sweeping policy goals announced in § 101 of NEPA are thus realized through a set of ‘action-forcing’ procedures that require that agencies take a ‘hard look’ at environmental consequences.” Robertson, 490 U.S. at 350 (citing Kleppe v. Sierra Club, 427 U.S. 390, 409 (1976)).

122 “The judiciary is the final authority on issues of statutory construction and must reject administrative constructions which are contrary to clear congressional intent.” Chevron U.S.A. Inc. v. Nat. Res. Def. Council, Inc., 467 U.S. 837, 843 n.9 (1984). “Chevron allows agencies to choose among competing reasonable interpretations of a statute; it does not license interpretive gerrymanders under which an agency keeps parts of statutory context it
Streamlining efforts do not change the Supreme Court mandated standard of review. Existing guidance\(^\text{123}\) and recent revisions to NEPA’s implementing regulations\(^\text{124}\) impose strict timelines and page limits. Time limits will result in less opportunity to obtain, consider, and respond to comments from state and federal agencies, Tribal governments, and the public, as well as less time to investigate potential impacts, alternatives, and mitigation opportunities. Page limits will make it more difficult for agencies to explain their analysis and conclusions, and may complicate efforts to consider an adequate range of alternatives to the proposed action. Whether federal agencies can satisfy the same substantive hard look requirement in less time and with less space to document their analysis is a question that will almost certainly land in the courts as streamlining efforts proceed. Similarly, whether an analysis with an abridged suite of action alternatives readily satisfies hard look requirements also appears to be a question destined for the courts. While some agencies may be able to do more with less, others almost certainly will struggle, and litigation-related delays could prove costly for some projects.

**B. Relationship Between the Time to Complete NEPA Documents & Litigation Rates**

Our colleagues David Adelman and Robert Glicksman recently calculated the number of EISs produced by an agency as a percent of all EISs prepared government-wide.\(^\text{125}\) They then calculated each agency’s share of all EIS litigation.\(^\text{126}\) Combining these two figures results in a production to litigation ratio, where a ratio greater than one indicates a higher than average rate of NEPA litigation.\(^\text{127}\) Comparing the litigation ratio to the amount of time spent on the NEPA analysis shows that going fast increases the risk of litigation.\(^\text{128}\)

Looking at the four federal agencies that prepared the largest number of EISs from 2010 through 2017, Adelman and Glicksman found that the Forest Service prepared 276 EISs and had a litigation ratio of 1.4, indicating that Forest Service EISs were challenged at a rate roughly 40% higher than that for all agencies

\(^\text{123}\) Secretary of the Interior, Order No. 3355 (Aug. 31, 2017).
\(^\text{125}\) Adelman & Glicksman, supra note 119.
\(^\text{126}\) Id. at 30.
\(^\text{127}\) Id.
\(^\text{128}\) Ruple & Race, supra note 68.
government-wide.\textsuperscript{129} The Bureau of Land Management came in a distant second in terms of the number of EISs produced, accounting for 128 and a litigation ratio of 1.0.\textsuperscript{130} The Federal Highway Administration was almost as active, preparing 114 EISs over the study period, but doing so while generating a litigation ratio of just 0.3.\textsuperscript{131} The Army Corps of Engineers prepared 89 EISs with a litigation ratio of 0.5.\textsuperscript{132}

These ratios, when combined with the time spent on EIS preparation, provide a strong caution against rigid and unrealistic timelines for NEPA completion. The less time an agency spent on EIS preparation, the more likely that agency was to be sued.\textsuperscript{133} As noted above, median completion time for an EIS was 3.6 years. The BLM, with a litigation ratio of 1.0 was almost average, requiring 3.8 years to complete an EIS. The Forest Service cut approximately 7 months from EIS preparation time, but they did so at the expense of increased litigation. The Federal Highway Administration and Army Corps of Engineers both spent considerably more time on EIS preparation and had significantly lower litigation ratios.

Rapid EIS preparation, in short, was associated with a higher rate of litigation.\textsuperscript{134} With NEPA litigation taking years to complete, gains in preparation time may be more than offset by time lost to litigation. These delays will only increase if a reviewing court remands the NEPA decision because an agency, in an effort to meet a strict deadline, overlooked an issue. While we will not know the true effect of streamlining efforts for several years, it appears likely that the benefits gained by expediting NEPA could be subsumed by even greater costs for NEPA litigation and document revision.

V.  \textbf{CONCLUSION & RECOMMENDATIONS}

NEPA appears to be working better than many believe, with roughly 99% of all NEPA decisions avoiding the most rigorous analysis contained in an EIS. Yes, EISs are subject to litigation at fairly high rates, but that is not surprising considering that they are conducted for the 1% of projects that require the highest level of analysis and that involve the most significant environmental impacts. Overall, just 0.22% of NEPA decisions result in litigation and that, we believe, says more about NEPA than anomalous EISs mired in litigation.

\textsuperscript{129} Adelman & Glicksman, \textit{supra} note 119, at 30.
\textsuperscript{130} \textit{Id.}
\textsuperscript{131} \textit{Id.}
\textsuperscript{132} \textit{Id.}
\textsuperscript{133} Ruple & Race, \textit{supra} note 68.
\textsuperscript{134} \textit{Id.}
As we stated throughout and reiterate here, we support efforts to improve NEPA efficacy, and we believe that such efforts should be grounded in a solid understanding of how NEPA works in action. Streamlining efforts that increase the rate of legal challenges will be counterproductive.

NEPA reform should start with careful compilation of data that improves our understanding of how NEPA works, where it is working efficiently and where NEPA is bogging down, and the benefits that NEPA provides. Reform unmoored from an understanding of NEPA practice increases the risk of unintended consequences. Reform without a mechanism to measure the effect of regulatory changes also leaves federal agencies and others with no good way to tell whether changes produce the intended effect.

We find the decline in resources available to federal agencies particularly striking, and perhaps no agency is suffering as much as the Forest Service, which appears to be rushing to complete its NEPA analysis. While we applaud the Forest Service for trying to do more with less, it appears that quality may be suffering because of the intense pressure being placed on that agency. The result is more litigation and more remands, which obviously place a heavy burden on already stretched agency resources. The Service may benefit from slowing down to go faster.