

DISPELLING THE MYTHS OF PERMITTING REFORM AND IDENTIFYING EFFECTIVE PATHWAYS FORWARD

by David E. Adelman, Sommer Engels, Andrew Mergen, and Jamie Pleune

David E. Adelman is the Harry M. Reasoner Regents Chair in Law at the University of Texas at Austin. Sommer Engels is a Clinical Instructor at the Emmett Environmental Law and Policy Clinic, Harvard Law School. Andrew Mergen is a Visiting Assistant Clinical Professor of Law and Faculty Director at the Emmett Clinic. Jamie Pleune is Associate Professor of Law (Research) at the S.J. Quinney College of Law, University of Utah, and Fellow at the Wallace Stegner Center for Land, Resources, and the Environment.

SUMMARY

Four myths are distorting the national debate over permit reform. First, it is misconceived as a singular issue, with the National Environmental Policy Act (NEPA) at its center. Second, reformers assume that federal reviews and permitting cause most project delays and failures. Third, there is a widespread belief that environmental laws are routinely weaponized against new infrastructure through obstructive litigation. Fourth, critics assert that environmental procedures and standards must be sacrificed to enable timely climate action. This Article debunks these myths and asserts that permitting efficiency is not incompatible with strong environmental standards, rigorous analysis, transparency, or public engagement. An empirically grounded approach would address the true causes of delay and reject the prevailing perspective that assumes deregulation is the only option. Increasing agency capacity through adequate funding, staffing, and training improves the permitting process for everyone. Interagency coordination reduces delays caused by inconsistent or redundant standards. Early, meaningful public engagement avoids delays by proactively addressing community concerns and mitigating harms. Agencies have already adopted these types of programs, improving efficiency without compromising regulatory standards. The Article proposes several principles that should guide permitting reform, describes established programs that should serve as models, and identifies future work that would promote an informed and constructive national debate.

Today's polarized politics rarely leave room for agreement, but the promise of "permit reform" could be an exception. On the right, proposals to shrink the federal government and eliminate regulations are nothing new. In 1981, during his inaugural address, President Ronald Reagan stated, "government is not the solution to

our problem; government is the problem."¹ In 2024, shortly after his reelection, president-elect Donald Trump took up this common refrain by announcing a "Department of Government Efficiency" with a mandate to "dismantle Government Bureaucracy, slash excess regulations, cut wasteful expenditures, and restructure Federal Agencies."²

On the left, recent support for permit reform is founded on a fear that federal environmental laws are stifling efforts to address climate change.³ In short, they believe that envi-

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1. Ronald Reagan's Inaugural Address (Jan. 20, 1981), <https://www.reagan-foundation.org/ronald-reagan/reagan-quotes-speeches/inaugural-address-2/> (last visited Dec. 5, 2024).
 2. Robin Bravender, *Wanted: "Small-Government Revolutionaries" for DOGE Team*, E&E NEWS (Nov. 14, 2024), <https://www.eenews.net/articles/wanted-small-government-revolutionaries-for-doge-team/>.
 3. See, e.g., Press Release, Sen. Joe Manchin, Manchin Supports Inflation Reduction Act of 2022 (July 27, 2022), <https://www.manchin.senate.gov/newsroom/press-releases/manchin-supports-inflation-reduction-act-of->

ronmental regulations are preventing rapid deployment of renewable energy projects, electrical transmission lines, and other critical infrastructure.⁴ As legal scholar Michael Gerrard put it, “[s]ociety has run out of time to save everything we want to save, and to mull things over for years.”⁵

The narrative that regulations cause delay resonates, because everyone has experienced permit-related frustration. Whether it is waiting for a building permit that took months to issue, wandering through bureaucratic hallways to obtain a business license, or watching a local infrastructure project mired in obscure government processes, we have all been there. The mere mention of permitting evokes images of sticky red tape and unhurried, out-of-touch bureaucrats.⁶ The solution, in this light, is obvious—cut procedures and relax protections.

While this sense of urgency is understandable, the focus on deregulation is grounded on four myths that are distorting public perceptions and policymaking. The four myths embody a zero-sum mentality that pits essential environmental procedures and protections against the exigency of addressing climate change. The four myths are that: (1) federal environmental permitting is a rigid monolith with the National Environmental Policy Act (NEPA)⁷ at its center; (2) federal environmental reviews and permitting are the primary reason that infrastructure projects are delayed or cancelled; (3) environmental laws are systematically weaponized against the construction of new infrastructure via obstructive litigation in federal courts; and (4) federal environmental procedures and standards must be sacrificed for the green energy transition to proceed at the scale and speed required to address climate change.

Each of these myths is premised on misperceptions of the law, the facts, or both. The available empirical record shows that environmental reviews and permitting rarely delay or block utility-scale renewable energy projects, that environmental litigation (outside specific locations and

types of projects) is seldom a factor, and that permitting reform does not have to occur at the expense of environmental procedures and standards. While environmental laws certainly play a role in shaping the pace and scale of infrastructure development, in practice, they are one among many factors, and rarely the rate-limiting one.⁸ Indeed, the fixation on environmental laws often obscures other more important challenges, such as the growing patchwork of state and local regulations that make development difficult to navigate, unpredictable, or impossible. Local opposition is fueling this gridlock and exposing tensions in our federal-state system, which recent U.S. Supreme Court decisions limiting agency authority will exacerbate.

The problems that have been documented with environmental programs typically have little to do with how they are structured, but instead derive from prosaic administrative problems. For example, limited agency budgets lead to insufficient staff, or an inadequate number of staff with the necessary expertise. Inconsistent policies across regions, offices, and personnel reduce the predictability and speed of the permitting process. Similarly, antiquated technology and data management can exacerbate inefficiency. By skirting these issues, the public debate misses the most pressing sources of administrative delays. Effective permit reform must prioritize understanding and addressing these administrative and resource deficiencies.

This Article’s goal is to shift the debate over permitting reform away from the presumption that deregulation is desirable, and toward policies that substantively and practically improve permitting processes for project proponents, communities, and the environment. We begin by debunking the four myths that are driving the calls for deregulation and undermining effective reforms. We then examine the actual sources of delay before proposing several principles that should guide permitting reform, describing model programs already being implemented, and identifying future work that would promote informed policymaking.

Finally, a note about footnotes. We have tried to keep the tone of the Article conversational. In some places, this means that we summarize how an area of law tends to be implemented, describe a practical nuance about project development, make litigation-related observations, or distill a larger conversation into a brief summary without providing comprehensive footnotes covering each assertion. We have taken this approach deliberately. Prioritizing succinctness allowed us to more effectively communicate our shared observations and perceptions about the myths and realities surrounding the permit reform debate.

2022; Ezra Klein, *What America Needs Is a Liberalism That Builds*, N.Y. TIMES (May 29, 2022), <https://www.nytimes.com/2022/05/29/opinion/biden-liberalism-infrastructure-building.html> (urging policymakers “to reform or waive large sections of the National Environmental Policy Act to speed the construction of clean energy infrastructure”); see also Jerusalem Demsas, *Not Everyone Should Have a Say*, ATLANTIC (Oct. 19, 2022), <https://www.theatlantic.com/ideas/archive/2022/10/environmentalists-nimby-permitting-reform-nepa/671775/> (characterizing the National Environmental Policy Act (NEPA) as the “weapon of choice” for “grouchy people with time on their hands” and a desire to block “everything”).

4. J.B. Ruhl & James Salzman, *The Greens’ Dilemma*, 73 EMORY L.J. 1, 9 (2023) (warning that the “use of environmental laws now presents a core challenge to the rapid [deployment of infrastructure] needed to achieve our national climate . . . goals”).

5. Michael Gerrard, *A Time for Triage*, 39 ENV’T F. 38, 40 (2022).

6. See Eric Biber & J.B. Ruhl, *The Permit Power Revisited: The Theory and Practice of Regulatory Permits in the Administrative State*, 64 DUKE L.J. 133 (2014), describing Prof. Richard Epstein’s concern that bureaucrats: entrench and abuse the permit power by promulgating elaborate sets of administrative procedures, imposing onerous conditions for the granting of a permit, manufacturing excuses for delay, retaining the power to revise or terminate permits virtually at will, adopting amorphous substantive standards that justify any outcome the agency prefers, and piling up the need to obtain multiple permits for the most mundane of activities as a “caricature.”

7. 42 U.S.C. §§4321 et seq.

8. ROBI NILSON ET AL., SURVEY OF UTILITY-SCALE WIND AND SOLAR DEVELOPERS REPORT 12-13, 47, 54 (2024), https://live-etabiblio.pantheonsite.io/sites/default/files/w3s_developer_survey_report_-011824_version.pdf; see also Ann Ferris et al., *The Impacts of Environmental Regulation on the U.S. Economy* (U.S. Environmental Protection Agency National Center for Environmental Economics, Working Paper No. 17-01, 2017) (providing a literature review of studies analyzing the impacts of environmental regulations on the economy).

I. Four Myths Undermine Effective Permitting Reform

A. Myth 1: Environmental Permitting Is a Monolith With NEPA at the Center

Proponents of “permitting reform” tend to speak in generalities that elide the complexity of infrastructure development and obscure the principal sources of delay. The misconceptions overshadowing permitting reform are exemplified by two “permit reform” proposals in the U.S. Congress last fall.⁹ The U.S. Senate bill (The Energy Permitting Reform Act of 2024), sponsored by Sens. Joe Manchin (I-W. Va.) and John Barrasso (R.-Wyo.), focused on restricting judicial review and expediting categories of projects through reduced or altered regulatory requirements.¹⁰ The U.S. House of Representatives bill, sponsored by Rep. Bruce Westerman (R-Ark.), focuses on overhauling NEPA by raising the threshold to trigger an environmental review, reducing the scope of analysis, and restricting litigation.¹¹

These proposals mirror some of the NEPA amendments that Congress recently included in the Fiscal Responsibility Act.¹² The nominal objective of these amendments was to limit the scope and timing of environmental reviews.¹³ Above all, this effort reflected a myopic focus on one statistic: the 4.5-year average time it takes to complete an environmental impact statement (EIS).¹⁴ This figure is not representative of all NEPA processes or their utility. Indeed, among many other factors, it does not reflect the decades-long decline in EISs required annually or the predominance of streamlined procedures—EISs are prepared for roughly 1% of the federal actions subject to NEPA.¹⁵

Nor is NEPA representative of “environmental permitting” as a whole. NEPA may be a part of a broader permit-

ting process, but efforts to reform NEPA in the name of permitting reform cannot address issues with substantive permitting programs, such as those under the Endangered Species Act (ESA)¹⁶ or the Clean Water Act (CWA).¹⁷ To the contrary, those efforts could undermine other permitting processes because NEPA procedures provide a structure for coordinating permitting decisions and other approval processes across federal agencies. According to the Congressional Research Service, “[m]ost agencies use NEPA as an umbrella statute—that is, a framework to coordinate or demonstrate compliance with any studies, reviews, or consultations required by any other environmental laws.”¹⁸ Ironically, this coordinating role can lead NEPA to be blamed for project delays when the procedures necessary to comply with other laws were in fact to blame.¹⁹

Several recent studies suggest that the coordinating framework provided by NEPA facilitates decisionmaking.²⁰ Environmental reviews are designed to expose preventable environmental impacts through effective redesign or engineering that avoids, reduces, or mitigates impacts.²¹ By exposing avoidable impacts, NEPA procedures can reduce project development times and costs by identifying mitigation options before a project is implemented. A study for the Transportation Research Board emphasized this role of NEPA procedures: “[s]pending more monies during planning and design will reduce the time and cost required for construction by avoiding unforeseen conditions, reducing to a minimum design errors and omissions, and developing schemes that will support the most efficient approach to construction.”²² The focus on NEPA procedures in isolation ignores the time-saving gains that are often achieved at other stages of the development process.

Other permitting reform efforts have targeted other federal environmental statutes, such as the National Historic Preservation Act (NHPA), the ESA, and CWA wetland protections under §404, and lumped them together with

9. Kelsey Brugger, *Westerman's NEPA Bill Shakes Up Permitting Talks*, E&E NEWS (Sept. 12, 2024), <https://www.eenews.net/articles/westermans-nepa-bill-shakes-up-permitting-talks/>.

10. Press Release, Senate Committee on Energy and Natural Resources, Manchin, Barrasso Release Bipartisan Energy Permitting Reform Legislation (July 22, 2024), <https://www.energy.senate.gov/2024/7/manchin-barrasso-release-bipartisan-energy-permitting-reform-legislation>.

11. Garrett Downs, *Natural Resources Committee Gears Up for NEPA Brawl*, E&E DAILY (Sept. 9, 2024), <https://www.eenews.net/articles/natural-resources-committee-gears-up-for-nepa-brawl/>. Draft H.R. ____, To Amend the National Environmental Policy Act of 1969, and for Other Purposes (Rep. Westerman) (118th Cong.).

12. Pub. L. No. 118-5, div. C, tit. III, §321(a), 137 Stat. 10, 38-39 (2023); see generally Daniel A. Farber, *Rewriting NEPA: Statutory Continuity and Disruption in a Polarized Era*, MICH. J. ENV'T & ADMIN. L. (forthcoming) (manuscript at 7-19), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4710933.

13. CONGRESSIONAL RESEARCH SERVICE, IF12417, IN FOCUS: ENVIRONMENTAL REVIEWS IN THE 118TH CONGRESS (2023).

14. See, e.g., Ezra Klein Show, *The I.R.A. Passed a Year Ago. Here's a Progress Check.*, N.Y. TIMES (July 7, 2023), <https://www.nytimes.com/2023/07/07/opinion/ezra-klein-podcast-robison-meyer.html> (publishing Ezra Klein's interview of Robison Meyer).

15. GOVERNMENT ACCOUNTABILITY OFFICE (GAO), GAO-14-370, NATIONAL ENVIRONMENTAL POLICY ACT: LITTLE INFORMATION EXISTS ON NEPA ANALYSES 8 (2014) [hereinafter GAO, LITTLE INFORMATION EXISTS ON NEPA].

16. 16 U.S.C. §§1531 et seq.

17. 33 U.S.C. §§1251 et seq.

18. CONGRESSIONAL RESEARCH SERVICE, RL33152, THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA): BACKGROUND AND IMPLEMENTATION I (2011).

19. *Id.*; see also John C. Ruple et al., *Evidence-Based Recommendations for Improving National Environmental Policy Act Implementation*, 46 COLUM. J. ENV'T L. 273, 317-22 (2022) (exploring this dynamic with the National Forest Management Act).

20. John C. Ruple et al., *Does NEPA Help or Harm ESA Critical Habitat Designations? An Assessment of Over 600 Critical Habitat Rules*, 46 ECOLOGY L.Q. 829, 842 (2019) (finding that critical habitat designations subject to NEPA review were completed an average of 93 days faster than those that were not subject to NEPA review).

21. Mark C. Capone & John C. Ruple, *NEPA and the Energy Policy Act of 2005 Statutory Categorical Exclusions: What Are the Environmental Costs of Expedited Oil and Gas Development?*, 18 VT. J. ENV'T L. 371, 391-93 (2017) (finding that oil and gas wells that utilized a statutory categorical exclusion (CE) rather than a more rigorous environmental analysis had significantly greater environmental impacts, in part because piecemeal approvals led to inefficient well-pad and road construction).

22. LINDA LUTHER, CONGRESSIONAL RESEARCH SERVICE, R42479, THE ROLE OF THE ENVIRONMENTAL REVIEW PROCESS IN FEDERALLY FUNDED HIGHWAY PROJECTS: BACKGROUND AND ISSUES FOR CONGRESS 36 (2012) (citing H. RANDOLPH THOMAS & RALPH D. ELLIS, NATIONAL RESEARCH COUNCIL, AVOIDING DELAYS DURING THE CONSTRUCTION PHASE OF HIGHWAY PROJECTS (2001) (NCHRP 20-24)).

NEPA as major barriers to rapid deployment of renewables and other green infrastructure.²³ This finger-pointing is misguided for reasons we discuss in the next part. But it is doubly misguided because it fails to appreciate the practical differences between these statutes. NEPA and the NHPA, for example, are purely procedural; others, like the ESA, have both substantive and procedural requirements. These statutes are categorically different and present fundamentally different regulatory challenges.

The debate over permitting reform presumes that deregulation is a global solution. Yet, “permitting” covers an extraordinarily broad range of infrastructure and resource development projects that are constructed in divergent geographic and legal settings. For example, the regulatory programs (local, state, and federal) applicable to a large solar project on private land in Texas are very different than those for a copper mine on public land in Arizona. The nature and severity of environmental impacts, and the degree to which they can be mitigated, differ in magnitude and type, as does the jurisdiction of federal environmental laws.

Broadly speaking, the relative importance of federal versus state and local laws is often determined by whether a project is located on federal or private land—if the former, federal laws control; if the latter, state and local laws are often most important. Thus, federal environmental reviews and permits are nearly unavoidable for most copper mines in Arizona, but most solar projects in Texas do not require either. In other words, the nature and setting of a project are critical to whether and how federal laws will apply.

What is “permitting,” then? To address permitting constructively, we need to have a clear understanding of its scope, functions, and purposes. We will define a “permit” broadly as a legal authorization to undertake an otherwise prohibited activity if specific conditions are met, consistent with the governing statute and regulations.²⁴ Permits are, in effect, legal contracts that agencies use to implement, administer, and enforce environmental statutes.²⁵ As such, they create substantive rights and obligations, are subject to procedural and due process requirements, and must be adequately enforced.

Substantively, they either provide access to public resources (e.g., oil and gas, mining, grazing permits) or they regulate conduct with detrimental environmental impacts (e.g., air, water, wetland permits) consistent with the governing statutes. Procedurally, permitting decisions are public, transparent, reasoned, and grounded on statutory and regulatory criteria. Where appropriate and legally mandated, permitting processes will include public outreach and provide time for public comment. For purposes of due process, the terms and conditions of permits should be clear and consistent, which ensures that they are both fair and readily enforceable. Finally, the enforcement should be principled and designed to ensure that regulatory compliance is rewarded and violators do not receive an unfair advantage. In short, permitting should not stifle good projects, and it should not rubber-stamp bad projects.

B. *Myth 2: Environmental Permitting Is the Primary Source of Project Delays and Failures*

Anecdotes about federal environmental reviews and permits obstructing deployment of green infrastructure do not match reality. Data from the past 14 years show that most renewable projects and transmission lines either do not require federal environmental reviews or permits or, if they do, are able to benefit from streamlined processes, often ones compatible with the shortest timelines conceivable, roughly two to five years, for major projects.²⁶

Direct experience and understanding of the laws prove this point. Utility-scale wind and solar projects, for example, tend to affect lands including wetlands and species habitat, and endangered and other protected species. The principal environmental statutes include environmental reviews under NEPA, wetlands protections under CWA §404, and wildlife protection under several overlapping laws, including the ESA.²⁷ All of those statutes have tiered structures for calibrating the stringency of procedures and permitting, and, because one project can create obligations under other statutes, interact and complement each other.²⁸

Take reviews under NEPA, for example. At the outset, NEPA applies broadly—to all “major Federal actions significantly affecting the quality of the human environment.”²⁹ However, the rigor of the analysis and disclosures required depend on the significance of a project’s impacts.³⁰ Only projects with significant impacts require rigorous review under an EIS.³¹ Empirical studies have long found that

23. See, e.g., Nikki Chiappa, *NEPA Nightmares: Tales From the Litigation Doom Loop*, BREAKTHROUGH INST. (Aug. 28, 2024), <https://thebreakthrough.org/journal/no-20-spring-2024/nepa-nightmares> (arguing that the “National Environmental Protection [sic] Act” is a “major source of delay” but discussing a project implicating both NEPA and CWA §404); Nikki Chiappa & Elizabeth McCarthy, *NEPA Nightmares II: The North Sky River Wind Energy Project*, BREAKTHROUGH INST. (Sept. 11, 2024), https://www.breakthrough-journal.org/p/nepa-nightmares-ii-the-north-sky?utm_source=publication-search (same, but discussing a project implicating both NEPA and the ESA, as well as several state statutes).

24. See, e.g., Biber & Ruhl, *supra* note 6, at 137.

25. See, e.g., *Mid Valley Pipeline Co., L.L.C. v. Rodgers*, 103 F.4th 1114, 1119–20 (5th Cir. 2024) (summarizing the general framework for determining whether a permit should be considered a contract, which considers whether the permit creates affirmative obligations on the government’s behalf, whether it is transferable, whether the government reserved the right to cancel the permit, whether it includes “contract-like language,” and whether it contemplates expensive investments that would typically be protected through a mutually binding agreement).

26. David E. Adelman, *Permitting Reform’s False Choice*, 51 *ECOLOGY L.Q.* 134–35, 173 (2024); NILSON ET AL., *supra* note 8, at 9–12 (survey of wind and solar project developers finding that environmental regulations were the cause of project delays or cancellations in less than 15% of the projects).

27. The NHPA, and particularly the §106 consultation process, can impact project timelines as well, but there are virtually no data and no empirical studies of NHPA consultations, despite their close connection with NEPA procedures.

28. Section 404 permitting may also be integrated with the ESA’s §7 consultation process.

29. 42 U.S.C. §4332(2)(C).

30. *Id.* §4336(b); 40 C.F.R. §1501.3 (2022).

31. 40 C.F.R. §1502.1 (2022).

EISs are required in only about 1% of the federal actions subject to NEPA.³² The number of EISs issued annually has also fallen for decades, from more than 2,000 in the 1970s, to roughly 600 in the 1990s, to fewer than 200 in the 2020s.³³

All other federal actions are subject to less burdensome reviews.³⁴ If a project does not have significant impacts, an environmental assessment (EA) and accompanying “finding of no significant impact” (FONSI) will suffice.³⁵ Developers often alter projects (or adopt mitigation measures) to reduce impacts below the level of significance that would require an EIS.³⁶ Categorical exclusions (CEs), the other streamlined process, exempt general “categories of actions which do not individually or cumulatively have a significant effect on the environment.”³⁷

When a CE is applicable, the review process is limited to a cursory analysis to ensure that a project fits within the defined exclusion and that no “extraordinary circumstances” exist that could cause significant impacts.³⁸ Thousands of CEs have been promulgated under agency regulations across the federal government.³⁹ For the streamlined EA and CE processes, the average completion times are estimated to be one to 1.5 years, and one to two days to half a year, respectively.⁴⁰

Streamlined procedures dominate ESA reviews too. Under §7 of the ESA, federal agencies must ensure that their actions are not likely to jeopardize listed species. These “actions” can include infrastructure projects undertaken or funded by a federal agency, or projects undertaken by states or municipalities that require a federal approval.

Before taking an action that agency biologists determine may affect a listed species, the responsible federal agency must “consult” with either the U.S. Fish and Wildlife Service (FWS) or National Marine Fisheries Service (NMFS), depending on the species at issue.⁴¹ But the stringency of this consultation varies.

Projects that may affect, but are not likely to adversely affect, a listed species are subject to only “informal consultation,” which typically culminates in a letter confirming that jeopardy is unlikely to occur.⁴² Projects that are likely to adversely affect a listed species undergo “formal consultation,” which ends in a biological opinion articulating the consulting agency’s assessment of whether the action is likely to jeopardize the affected species.⁴³ A comprehensive study of §7 consultations for the years 2008–2015 found that 81,461 were informal, an average of 11,113 per year, and 6,829 were formal, an average of 932 per year, or 8% of the total.⁴⁴ On average, the informal consultations studied were completed in just 26 days (median 13 days), and formal consultations averaged 111 days (61 days median).⁴⁵ None of these consultations resulted in project cancellation.⁴⁶

The trends for wetland permitting under CWA §404 mirror those for NEPA and the ESA—most projects are processed under streamlined processes or avoid federal environmental reviews or permitting altogether. The overarching objective of §404 is to prevent the “net loss” of wetlands.⁴⁷ The wetland permitting program therefore limits impacts on wetlands by requiring permit applicants to create, enhance, restore, or preserve other wetlands for any impacts that are unavoidable.⁴⁸ The U.S. Army Corps of Engineers (the Corps) issues about 60,000 wetland permits each year,⁴⁹ but the vast majority of these (roughly 97%) are

32. GAO, LITTLE INFORMATION EXISTS ON NEPA, *supra* note 15, at 8–9 (estimating that 94% of federal actions were under CEs and about 5% require an environmental assessment (EA)); see also *Council on Environmental Quality (CEQ), The National Environmental Policy Act: A Study of Its Effectiveness After Twenty-Five Years* 19 (1997) (estimating that the number of EAs prepared annually was closer to 50,000).

33. Adelman, *supra* note 26, at 139. This trend may explain, in part, why the average completion time for EISs, 4.5 years (median 3.5 years), has been difficult for agencies to lower. If the threshold for triggering an EIS has risen over time, leading to fewer EISs completed annually, then the complexity and significance of project impacts addressed in the few remaining EISs may have also increased and driven up average completion times.

34. 40 C.F.R. §1501.5 (describing EAs, which are required for projects that are not likely to have significant effects or where the significance is unknown); *id.* §1501.4 (describing CEs). Recent amendments to NEPA, adopted through the Fiscal Responsibility Act, incorporated these two practices (EAs and CEs) directly into the statute. 42 U.S.C. §106(b).

35. 40 C.F.R. §1508.9 (1978).

36. Daniel R. Mandelker, *New Directions in Environmental Law: The National Environmental Policy Act: A Review of Its Experience and Problems*, 32 WASH. U. J. L. & POL’Y 293, 298 (2010).

37. 40 C.F.R. §1508.4 (1978).

38. *Id.*

39. CEQ, *Categorical Exclusions*, <https://ceq.doe.gov/nepa-practice/categorical-exclusions.html> (last visited Dec. 5, 2024) (providing a link to download a central database of CEs organized by agency and available in an excel spreadsheet). Other CEs are created by statute. The Healthy Forests Restoration Act, 16 U.S.C. §6554(d)(1), and the Energy Policy Act, 42 U.S.C. §15942, for example, both created statutory exemptions, and Congress is frequently urged to create others. One downside to this approach is that Congress may lack the expertise to say with certainty that the excluded action is without environmental significance—the appropriate standard for issuance of a CE. Regulatory CEs, by contrast, are intended to reflect the issuing agency’s real-world expertise.

40. CEQ, *supra* note 32, at 19 (these numbers include draft, revised, supplemental, and final EISs).

41. 16 U.S.C. §1536(a)(3)–(4).

42. 50 C.F.R. §402.13.

43. See 16 U.S.C. §1536(b); see also *id.* §1532(19), §1538(a)(1)(B); 50 C.F.R. §§17.21(a), 17.31(a) (2018) (further defining “take” and extending the take provisions to protect threatened species under 33 U.S.C. §1533(d) authority); see also *Babbitt v. Sweet Home Chapter of Cmty. for a Great Or.*, 515 U.S. 687 (1995) (defining the scope of “take”).

44. Jacob M. Malcom & Ya-Wei Li, *Data Contradict Common Perceptions About a Controversial Provision of the US Endangered Species Act*, 112 PNAS 15844, 15845 (2015), <https://www.pnas.org/doi/epdf/10.1073/pnas.1516938112>. These numbers exclude 110,850 consultations recorded as technical assistance over the same time period. *Id.*

45. *Id.* It is notable that the duration of formal consultations in 90th percentile was still less than one year. *Id.*

46. *Id.* (a court overturned the jeopardy finding in one case and the other involved a California water project and the Delta smelt, and the project was ultimately allowed to proceed).

47. J.B. Ruhl & James Salzman, *Gaming the Past: The Theory and Practice of Historic Baselines in the Administrative State*, 64 VAND. L. REV. 1, 29–35 (2011).

48. U.S. Environmental Protection Agency (EPA), *Section 404 of the Clean Water Act: Permitting Discharges of Dredge or Fill Material*, <https://www.epa.gov/cwa-404> (last updated Dec. 2, 2024).

49. CONGRESSIONAL RESEARCH SERVICE, 97–223, THE ARMY CORPS OF ENGINEERS’ NATIONWIDE PERMITS PROGRAM: ISSUES AND REGULATORY DEVELOPMENTS 2–3 (2017). During the years 2012 through 2015, the Corps authorized an average of 63,000 actions impacting wetlands each year; roughly 50,000 were authorized under nationwide permits (NWP), and of these, 31,000 did not require an application or prior approval by the Corps. *Id.*

general permits covering broad categories of projects rather than standard permits for specific projects.⁵⁰

The Corps currently issues about 1,900 standard permits annually.⁵¹ In a study of wetland permitting for 2016, nationwide permits that require Corps approval were, on average, processed in 40 days, whereas standard permits averaged 217 days to process from the date of the public notice.⁵² However, if you include the period prior to the public notice, processing times for standard permits are likely closer to two to three years.⁵³

In summary, most green infrastructure has not been subject to federal environmental reviews or permits. The most important exceptions to this general rule are projects located on federal land or in federal waters. When federal environmental laws apply, streamlined processes predominate and processing times are typically less than one year. Little evidence exists that federal environmental laws are the primary source of project delays or cancellations.

C. Myth 3: Environmental Laws Are Being Weaponized Against New Infrastructure

High-profile “impact” litigation has been a staple of environmental advocacy since the 1960s, and it has recently overshadowed the debate over permitting reform. Many of the most celebrated environmental victories have involved lawsuits to delay or stop the construction or operation of major facilities, infrastructure, and resource extraction projects.⁵⁴ Notable examples include the famous “snail darter” cases against the Tellico Dam in Tennessee,⁵⁵ the landmark “spotted owl” litigation that shut down logging

in the Pacific Northwest,⁵⁶ and climate litigation against fossil fuel infrastructure.⁵⁷

It is therefore no surprise that proponents of permitting reform believe that NEPA, the ESA, and other “look before you leap” statutes must be weakened if green infrastructure projects are to proceed without delay.⁵⁸ And their warnings are not merely speculative, as the notorious Cape Wind example demonstrates.⁵⁹ Recent litigation against lithium mines in Nevada and the SunZia interstate transmission line in the Southwest provide further support for this narrative.⁶⁰

Concerns about environmental litigation rest on assumptions about the perceived environmental impacts of new infrastructure and the actual threat of litigation. Yet, the environmental footprint of most green infrastructure is different in kind and significance from the industrial projects and extractive activities that were the subject of earlier litigation campaigns.⁶¹ The capacity to avoid or mitigate the environmental impacts of green infrastructure is reflected in a recent Nature Conservancy study, which found that the scale of renewable development required to address climate change could be met without unduly impacting sensitive and critical ecosystems.⁶²

By contrast, prior environmental litigation focused on industries with outsized impacts on human health or the environment, or on protection of unique and vulnerable natural resources. The severity of the impacts was integral to the strength of the cases, the motivation for filing them, and the injunctive relief the plaintiffs obtained. The

50. *Id.*; see Dave Owen, *Regional Federal Administration*, 63 UCLA L. REV. 58, 82 (2016); Ryan W. Taylor, *Wetlands Protection: The Forgotten Agenda*, in *WIDENING THE SCOPE OF ENVIRONMENTAL POLICIES IN NORTH AMERICA: TOWARDS BLUE APPROACHES 94* (Gustavo Sosa-Nunez ed., Springer 2018); see also CONGRESSIONAL RESEARCH SERVICE, *supra* note 49, at 6-7, 18-19. The most important NWP for renewables and transmission lines are NWP 57, which covers utility lines and associated facilities; NWP 14, which covers linear transportation projects; and NWP 51, which covers land-based renewable energy projects. U.S. Army Corps of Engineers Headquarters, *2021 Nationwide Permit Information*, <https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Nationwide-Permits/> (last visited Dec. 5, 2024). Each of these NWPs is self-certifying, but General Condition 18 requires nonfederal actors to provide notice to the Corps if a listed species is found in the vicinity of a project, and this triggers the ESA §7 consultation process. *Id.*

51. Adelman, *supra* note 26, at 171.

52. CONGRESSIONAL RESEARCH SERVICE, *supra* note 49, at 2.

53. This estimate is based on discussion with practicing attorneys.

54. Ezra Klein, *Government Is Flailing, in Part Because Liberals Hobbled It*, N.Y. TIMES (Mar. 13, 2022), <https://www.nytimes.com/2022/03/13/opinion/berkeley-enrollment-climate-crisis.html>; Klein, *supra* note 3 (using the history of environmental activism to argue that there is “an entire branch of liberalism . . . dedicated to criticizing and then suing and restraining government”).

55. Zygmunt J.B. Plater, *Endangered Species Act Lessons Over 30 Years, and the Legacy of the Snail Darter, a Small Fish in a Pork Barrel*, 34 ENV'T L. 289, 293-94 (2004) (describing the snail darter case as an “extraordinary legal marker . . . in the development of . . . environmental law”).

56. William H. Rodgers Jr., *The Most Creative Moments in the History of Environmental Law: “The Whats,”* 2000 U. ILL. L. REV. 1, 21-22 (2000) (quoting the lead attorney’s characterization of the case as “unprecedented in its geographic scope, diversity of legal theories, political controversy, and effective ecological impact”).

57. James W. Coleman, *Pipelines & Power-Lines: Building the Energy Transport*, 80 OHIO ST. L.J. 263, 279-80 (2019) (describing the litigation against gas and oil pipelines under several environmental laws); Michael Grunwald, *Inside the War on Coal*, POLITICO (May 26, 2015), <https://www.politico.com/agenda/story/2015/05/inside-war-on-coal-000002/> (describing the Sierra Club’s litigation campaign, which was largely funded by Michael Bloomberg).

58. See, e.g., NIKKI CHIAPPA ET AL., BREAKTHROUGH INSTITUTE, UNDERSTANDING NEPA LITIGATION: A SYSTEMATIC REVIEW OF RECENT NEPA-RELATED APPELLATE COURT CASES 2 (2024) (asserting that “NEPA litigation overwhelmingly functions as a form of delay, as most cases take years before courts ultimately rule in favor of the defending federal agency”).

59. *Public Emps. for Env’t Resp. v. Hopper*, 827 F.3d 1077, 1090 (D.C. Cir. 2016) (vacating Cape Wind Project’s EIS and incidental take statement).

60. Alana Semuels, *Is Your Electric Car Worth the Extinction of a Species?*, TIME (Apr. 27, 2023), <https://time.com/6274915/lithium-mining-us-tiehms-buckwheat/>; Scott Sonner, *9th Circuit Denies Bid by Environmentalists and Tribes to Block Nevada Lithium Mine*, AP NEWS (July 17, 2023), <https://apnews.com/article/nevada-thacker-pass-lithium-mine-4ad772a6940eb8edd507b50a179202f2>.

61. Admittedly, there are elements of green infrastructure, such as critical mineral mines or battery processing plants, that have large environmental footprints akin to those of traditional extractive industries. These projects deserve rigorous analysis and should be required to meet environmental standards. As discussed in more detail below, rigor need not be the enemy of efficiency. Our point here is that most renewable energy projects have dramatically smaller environmental footprints—a reality the permit reform debate has not grappled with substantively.

62. Grace C. Wu et al., *Minimizing Habitat Conflicts in Meeting Net-Zero Energy Targets in the Western United States*, 120 PNAS 1 (2023); Grace C. Wu et al., *Low-Impact Land Use Pathways to Deep Decarbonization of Electricity*, 15 ENV’T RSCH. LETTERS 1 (2020).

litigation also required large sources of funding, and this was particularly true for campaigns involving suits against numerous defendants.⁶³

The categorical differences in the nature and significance of environmental impacts are reflected in the relatively low number of green infrastructure projects that have required an EIS or project-specific permits. These attributes also make it much harder to identify viable claims under federal environmental laws. For example, if neither a federal environmental review nor a permit is required for a project, there is no final agency action to challenge. While a project opponent could file a case asserting that an environmental review or permit was required, prevailing in such cases is exceedingly difficult.

Further, if an environmental review or permit is issued, a project opponent could challenge this procedurally or substantively, but, again, the modest environmental impacts will make this an uphill battle and obtaining injunctive relief will be even less likely. For these reasons, as described in more detail below, the fear of federal litigation as a systemic source of delay is overblown.

1. Most Green Infrastructure Projects Are Not Challenged in Federal Court

The legal and factual barriers to litigation are consistent with the strikingly low numbers of cases filed against wind and solar projects between 2010 and 2021.⁶⁴ Over this period, the generating capacity of utility-scale solar projects grew by 270 times and wind capacity rose by a factor of three.⁶⁵ Yet, only 28 cases were filed against 21 wind projects and 14 cases against eight solar projects; overall, about 3% of wind projects and less than 1% of solar projects were subject to litigation under a federal environmental statute.⁶⁶

Although the small number of cases makes generalizing difficult, the cases appear to track unique ecosystems and endangered species, particularly desert species for solar and bats for wind. The litigation over wind projects in the Midwest and Northeast, largely around offshore wind, include clear examples of environmental laws being leveraged against green infrastructure, but the total number of projects challenged (12) is small.⁶⁷ The litigation over solar projects was even more localized—all 14 cases were filed in California and involved projects sited in sensitive desert habitats, tribal issues, thermal solar projects with greater environmental impacts, or combinations of all three.⁶⁸ In the past two years, new federal cases filed

against wind projects have exclusively targeted offshore projects in the Atlantic and no new cases have been filed against solar projects.⁶⁹

A recent study of public opposition to wind and solar projects found that litigation under federal environmental laws occurred in just 12% of the projects subject to public opposition.⁷⁰ The data highlight two classes of projects that are mirror images of each other: those on federal land, where public opposition is limited to challenges under federal laws; and those on private land, where public opposition centers on state or local permitting authorities or state courts. This dichotomy is driven by three reinforcing factors: (1) state land use regulations do not apply to federal lands; (2) projects on private land rarely require federal environmental reviews or project-specific permits; and (3) state and local forums are faster, easier to navigate, and more sensitive to local political pressure than federal courts in which cases are decided by judges with lifetime appointments.

Most of the public opposition to infrastructure centers on preserving the aesthetics of landscapes for humans or protecting property values, whereas protection of natural resources is often incidental to these concerns. In other words, the conflicts at the center of local opposition to most green infrastructure are not foremost about conventional environmental issues. The aesthetic nature and property rights orientation of their concerns are an important reason that project opponents favor state and particularly local forums founded on traditional principles of local land use law. The types of concerns that underpin their objections fall squarely within the jurisdiction of these laws and are salient to the local commissions and boards that oversee them.

This dynamic demonstrates two points. First, eliminating pathways to the federal courthouse will not stop public opposition or legal challenges to green projects in state and local fora. Second, identifying strategies to reduce community opposition—like early engagement with stakeholders—is critical to achieving the goals of the energy transition.

2. Trends for Other Infrastructure Projects Demonstrate That Even When Litigation Occurs, Projects Are Rarely Delayed

The practical and legal limits of litigation are illustrated by experience in other similarly situated sectors of infrastructure development. For example, transportation projects involving roadways or airports have large footprints and often trigger community opposition. Like green infrastructure, their environmental impacts often can be mitigated

63. Lisa Friedman, *Michael Bloomberg Promises \$500 Million to Help End Coal*, N.Y. TIMES, June 6, 2019, at A14 (describing the multi-stage Beyond Coal campaign led by the Sierra Club that by 2019 had already received \$150 million in funding from Michael Bloomberg and would now receive another \$500 million).

64. Adelman, *supra* note 26, at 159.

65. *Id.* at 134.

66. *Id.* at 134, 159.

67. *Id.* at 160-61.

68. *Id.*

69. In an update of the data from *Permitting Reform's False Choice* for the period January 2022 through June 2024, David Adelman identified 13 new federal cases filed against eight offshore wind projects located along the Atlantic Coast; three new cases involved transmission lines, and no new solar litigation.

70. Adelman, *supra* note 26, at 164.

through design modifications or relocation. However, unlike most renewable projects, a federal nexus often exists for project opponents to challenge them.

Essentially all airport infrastructure must be authorized by the Federal Aviation Administration (FAA), and NEPA or other federal environmental laws are almost always triggered due to impacts associated with noise, air pollution, wetlands, and environmental justice concerns. Similarly, although typically state-led, roadway construction or expansion projects are subject to federal environmental laws, such as NEPA and the ESA, based on federal funding. Thus, understanding litigation trends for these types of projects provides unique insight into the likelihood that federal litigation will delay renewable energy projects.

Most major airport and roadway projects can be challenged under federal environmental laws. But experience finds that such litigation is rarely a significant source of project delay. Representative cases involving projects at Dallas Fort Worth International Airport, Seattle-Tacoma's Sea-Tac Airport, Albuquerque International Airport, and Los Angeles International Airport all ultimately proceeded without court-ordered delay.⁷¹ Similar patterns are observed for roadway projects, over which the U.S. Department of Transportation (DOT) and its subagency, the Federal Highway Administration, have a consistent record of success in the courts.⁷²

Permit reform advocates tend to overlook this experience when they claim that federal permitting offers powerful legal hooks for would-be litigants to delay or halt projects. In practice, most large infrastructure projects do not become mired or delayed in litigation.⁷³ What accounts for these seemingly incongruous outcomes? In part, this success reflects the efficacy of agencies' permitting processes, which result in material changes to projects that both mitigate their harmful effects and make them difficult targets for lawsuits.

Another factor is that agencies are effectively addressing public concerns and objections. Concerns about airport projects, for example, are driven by noise impacts. Building on decades of experience and expertise, FAA has a standardized procedure for assessing noise levels and mitigating them.⁷⁴ The agency also has developed effective mea-

asures for supporting local participation.⁷⁵ The legitimacy of these processes carries dividends in federal court. Judges reviewing agency permits and environmental reviews for major infrastructure projects are often reticent to flyspeck agency decisions and reasoning.⁷⁶ They are also aware that transportation infrastructure serves the public and should not be subject to a heckler's veto.⁷⁷

To be sure, some projects are subject to multipronged litigation campaigns. As noted above, that is especially true in the case of extractive development and adjacent infrastructure. Yet, even in high-profile cases supported by ample resources, litigation has its limits. Consider the legal battle over the Dakota Access Pipeline, which was among the highest profile environmental cases of the 2010s. During the litigation, the district court held that the Corps had violated NEPA in granting an easement over Corps-managed lands within an Indian reservation.⁷⁸ This led the court to vacate the easement and to enjoin operation of the pipeline pending the Corps' completion of an EIS on remand.⁷⁹

The U.S. Court of Appeals for the District of Columbia (D.C.) Circuit affirmed on the merits but reversed on the injunction.⁸⁰ It agreed that the district court did not abuse its discretion in vacating the easement, but concluded that it erred in requiring the pipeline to be shut down pending completion of the remand.⁸¹ The district court later denied a subsequent request by plaintiffs to enjoin use of the pipeline pending remand, concluding that the remote threat of a spill was not enough to demonstrate irreparable injury.⁸² In the end, notwithstanding a violation of the law, injunctive relief was denied despite the high profile of the case and large scale of the opposition to the project.

Courts have reached similar results in other energy and infrastructure cases. For example, judges tend to resist vacating permits for oil and gas drilling solely because a violation of NEPA or another environmental statute has occurred.⁸³ In this regard, ongoing litigation can cloud the permitting process but may not serve to meaningfully obstruct or delay it.⁸⁴ Where infrastructure has been fully

71. See *City of Grapevine, Tex. v. Department of Transp.*, 17 F.3d 1502 (D.C. Cir. 1994) (Dallas-Fort Worth); *City of Normandy Park v. Port of Seattle*, 165 F.3d 35 (9th Cir. 1998) (Sea-Tac); *Airport Neighbors of All. v. U.S. Dept't of Transp.*, 90 F.3d 426 (10th Cir. 1996) (Albuquerque); *Morongo Band of Mission Indians v. Federal Aviation Admin.*, 161 F.3d 569 (9th Cir. 1998) (LAX).

72. See, e.g., *Maryland Chapter of the Sierra Club v. Federal Highway Admin.*, No. DKC 22-2597, 2024 WL 1194382, at *1, 24 (D. Md. Mar. 20, 2024) (upholding federal review of highway project intended to address "extreme congestion" that reflected both a thorough examination of issues and mitigation).

73. See, e.g., LUTHER, *supra* note 22, at 27 (noting that despite the concern about environmental litigation delaying transportation projects, the actual rate of lawsuits filed annually against the Federal Highway Administration was low); John C. Ruple & Kayla Race, *Measuring the NEPA Litigation Burden: A Review of 1,499 Federal Court Cases*, 50 ENV'T L. 479 (2020) (finding that only a small percentage—roughly 1 out of 450—NEPA decisions are challenged through litigation).

74. Andrew Mergen, *The Changing Nature of Airport Environmental Litigation*, 18 AIR & SPACE LAW. 1 (2004).

75. *Communities Against Runway Expansion, Inc. v. Federal Aviation Admin.*, 355 F.3d 678, 690 (D.C. Cir. 2004) (noting fair consideration given to local interests).

76. See, e.g., *City of Olmstead Falls, Ohio v. Federal Aviation Admin.*, 292 F.3d 261, 273 (D.C. Cir. 2002); see also *Protect Our Communities Found. v. Jewell*, 825 F.3d 571, 582 (9th Cir. 2016) (distinguishing between "fly specking" and the identification of consequential flaws).

77. See *North Carolina v. Federal Aviation Admin.*, 957 F.2d 1125, 1134 (4th Cir. 1992) (explaining that the heckler's veto plays no role in the review of NEPA analyses).

78. *Standing Rock Sioux Tribe v. U.S. Army Corps of Eng'rs*, 471 F. Supp. 3d 71 (D.D.C. 2020).

79. *Id.*

80. *Standing Rock Sioux Tribe v. U.S. Army Corps of Eng'rs*, 985 F.3d 1032, 1050 (D.C. Cir. 2021).

81. *Id.*

82. *Standing Rock Sioux Tribe v. U.S. Army Corps of Eng'rs*, 540 F. Supp. 3d 45 (D.D.C. 2021).

83. See, e.g., *Diné Citizens Against Ruining the Env't v. Haaland*, 59 F.4th 1016 (10th Cir. 2023).

84. Even when vacatur is granted, this may be because project proponents have failed to argue for remand without vacatur. See, e.g., *Eagle Cnty. v. Surface Transp. Bd.*, 82 F.4th 1152 (D.C. Cir. 2023) (no party argued that vacatur of underlying approvals would be disruptive).

constructed, as illustrated by the Dakota Access Pipeline, the courts are even more reluctant to order vacatur.⁸⁵ The key point is that even where a violation of the law is established, injunctive relief is often the exception rather than the rule, and progress on construction or operations need not—and routinely does not—come to a standstill.⁸⁶

The frequency and outcomes of litigation also evolve over time. Wind energy projects, for example, initially struggled in court, but have largely sailed through since—including offshore wind projects along the East Coast that are subject to much higher rates of litigation.⁸⁷ This is to be expected, in part because agency responses to concerns raised in public comments improve with time and experience. Judges' understanding of the issues surrounding new infrastructure also progresses.

Underlying all of this is a dose of legal realism. Just as judges who are familiar with airport delays or traffic congestion are more likely to adhere to deferential standards of review, judges mindful of the stakes surrounding clean energy are less likely to second-guess agency judgments. As retired Justice Stephen Breyer is fond of noting, courts should never respond to the weather of the day but will inevitably “be influenced by the climate of the era.”⁸⁸

The debate over permitting reform often appears to assume that challenges to infrastructure projects are inherently illegitimate and destructive. Yet, legal challenges are often driven by high-stakes disputes over conflicting values where the law is ambiguous. The recent lawsuit over a lithium mine at Rhyolite Ridge in Nevada is illustrative. *Time* magazine aptly summarized the conflict in a recent piece as “Is Your Electric Car Worth the Extinction of a Species?”⁸⁹ In litigation over another Nevada lithium mine, Thacker Pass, the judge noted that the case “encapsulates the tensions among competing interests and policy goals.”⁹⁰

Parties turn to litigation because they want to ensure the law is upheld. Access to courts benefits all of society by clarifying legal standards, protecting the rights of interested parties, and fostering trust in government through independent judicial oversight. Litigants who believe that

they have “had their day in court” can often accept a fair decision, even if they dislike the outcome. Permit reform proposals that seek to close the door to the courthouse risk losing these benefits, without clear evidence that litigation was a systemic cause of delay.

D. *Myth 4: Environmental Procedures and Protections Must Be Sacrificed to Enable Timely Action on Climate Change*

The long timelines and high costs commonly associated with environmental reviews and permitting are presumed to be inherent to these processes. Proponents of permitting reform infer from this understanding that the only option is to restrict or foreshorten environmental protections and procedures. As discussed above, most permitting is conducted through streamlined processes, but even when it is not, and projects are subject to rigorous review and oversight, substantial evidence exists that lengthy delays are not inherent to environmental permitting itself.

Multiple studies have found that environmental reviews under NEPA are rarely the primary cause of delay, even though delays may be reflected in the NEPA process.⁹¹ Instead, a project review may stop and restart for external reasons such as funding, engineering requirements, changes in agency priorities, delays in obtaining nonfederal approvals, or political opposition to the project.⁹² These delays create the appearance of a long NEPA process, even though the NEPA analysis did not cause the delay.⁹³

If environmental procedures and protections were the sole cause of delay, all similarly situated projects would encounter similar lengthy delays. For example, all projects attempting to connect to the grid must wait in the interconnect queue for roughly 2.5 years.⁹⁴ While there is significant variation in waiting periods across electricity markets, there is relatively little variation by type of project within each market. The same is not true for environmental permitting. A close look at the available data regarding environmental permitting reveal that permitting timelines often vary widely, even for similarly situated projects.

85. *National Parks & Conservation Ass'n v. Semonite*, 422 F. Supp. 3d 92 (D.D.C. 2019) (declining to order vacatur where transmission lines were providing electric power).

86. *Contra CHIAPPA ET AL.*, *supra* note 58, at 12 (contending that NEPA litigation delays projects by 3.9 years on average, but reviewing only appellate cases and failing to consider the issuance of injunctive relief or lack thereof). To be sure, the issuance of injunctive relief to preserve the status quo—that is, injunctions prior to ground-breaking activity and intended to give a court the opportunity to rule—are not uncommon, but these injunctions can be of short duration and are frequently coupled with expedited briefing processes.

87. In 2016, federal agencies lost two significant wind power cases in the D.C. Circuit. *Public Emps. for Env't Resp. v. Hopper*, 827 F.3d 1077 (D.C. Cir. 2016); *Union Neighbors United, Inc. v. Jewell*, 831 F.3d 564 (D.C. Cir. 2016). More recently, federal agency authorizations have been consistently approved by the courts. *Fisheries Survival Fund v. Haaland*, 858 F. App'x 371 (D.C. Cir. 2021); *Melone v. Coit*, 100 F.4th 21 (1st Cir. 2024); *Nantucket Residents Against Turbines v. U.S. Bureau of Ocean Mgmt.*, 100 F.4th 1 (1st Cir. 2024).

88. STEPHEN BREYER, *READING THE CONSTITUTION: WHY I CHOSE PRAGMATISM, NOT TEXTUALISM* 245 (2024) (quoting the legal scholar Paul Freund).

89. Semuels, *supra* note 60.

90. *Bartell Ranch LLC v. McCullough*, No. 3:21-cv-00080-MMD-CLB, 2023 WL 1782343, at *1 (D. Nev. Feb. 6, 2023).

91. RYAN SUD ET AL., THE BROOKINGS INSTITUTE, *HOW TO REFORM FEDERAL PERMITTING TO ACCELERATE CLEAN ENERGY INFRASTRUCTURE: A NONPARTISAN WAY FORWARD* 14 (2023).

92. GAO, *LITTLE INFORMATION EXISTS ON NEPA*, *supra* note 15, at 15; LUTHER, *supra* note 22, at 9 (“The environmental review process may start, stop, and restart for reasons unrelated to environmental issues. Local and state issues have shown to have the most significant influence on whether a project moves forward relatively quickly or takes longer than anticipated.”).

93. EXECUTIVE OFFICE OF THE PRESIDENT, CEQ, *ENVIRONMENTAL IMPACT STATEMENT TIMELINES (2010-2018)*, at 2 (2020) (“For some EISs, the timeline does not represent continuous activity. Delays may be attributable to the agency, the applicant, Congress, the needs of cooperating agencies, States, Tribes, and local interests, or public controversy.”); Ruple et al., *supra* note 19, at 304 (conducting a detailed analysis of NEPA decisionmaking times and observing that complex projects can be completed quickly and simple projects subject to a truncated NEPA analysis may encounter delays).

94. JOSEPH RAND ET AL., LAWRENCE BERKELEY NATIONAL LABORATORY, *QUEUED UP: 2024 EDITION—CHARACTERISTICS OF POWER PLANTS SEEKING TRANSMISSION INTERCONNECTION AS OF THE END OF 2023*, at 34-36 (2024), https://emp.lbl.gov/sites/default/files/2024-04/Queued%20Up%202024%20Edition_1.pdf.

This dynamic is most clearly demonstrated in a study conducted by the Office of Inspector General into Bureau of Land Management (BLM) permit processing times for oil and gas wells.⁹⁵ BLM receives approximately 5,000 new applications for permits to drill each year, which are processed at 33 different field offices. According to BLM, the average processing time in 2012 was 228 days, but this number only tells part of the story. Even though each field office is governed by the same legal standard, the permit processing times varied widely. Buffalo, Wyoming, and Miles City, Montana, took more than 300 days to process permits. In contrast, five field offices took less than 100 days. Anchorage, Alaska, averaged 37 days.

This dramatic variation in permit processing times cannot be blamed on NEPA or environmental standards, because each field office was applying the same legal standard to the same activity. The variation in timing was attributed to a lack of staff, poor data management, and weaknesses in oversight and accountability.⁹⁶ This insight—which is important for improving permitting efficiency—was only achieved by identifying the wide variation in performance and asking what made the difference.

The permitting reform debate has focused almost exclusively on simple statistics, like the average time to complete an EIS. This singular focus ignores the rich opportunity for insight provided by a deeper consideration of available data. For example, while it is true that the average time to complete an EIS was 4.5 years between 2010 and 2018, it is also true that one-half of the EISs during this period were completed in 3.5 years or fewer, and one-quarter in fewer than 2.2 years.⁹⁷ These statistics indicate what is possible within the existing legal framework.

The data also reveal that extremely lengthy EISs—which often dominate headlines—are outliers. In a 2020 Council on Environmental Quality (CEQ) study of all EISs across the federal government from 2010-2018, only 25% took longer than six years.⁹⁸ Further, while this variation could be driven solely by NEPA procedures (i.e., more complex analyses taking longer to complete), a recent study of U.S. Forest Service NEPA documents challenged this assumption.⁹⁹ Looking at 16 years of NEPA decisions at all levels of analysis, the study found that completion times for environmental reviews are not consistently determined by the level of review—a surprising percentage of EISs took less time than EAs, and the same dynamic was seen between EAs and CEs.¹⁰⁰

This variation in NEPA completion time suggests that analytical rigor is not the primary driver of NEPA completion times. If it were, there would be distinct differences in time frames between EISs, EAs, and CEs, which each impose different procedures and levels of analysis. Like the study of BLM oil well permit processing times,¹⁰¹ the Forest Service study found that external factors, including a lack of agency capacity, delays attributable to the operator, and compliance with other laws, often caused delay.¹⁰² If environmental standards and analytical rigor do not drive delay, they should not be sacrificed to achieve efficiency. The permit reform debate should grapple with these findings, which suggest that efficiency can be improved without sacrificing environmental standards, analysis, or transparency.

Focusing on isolated statistics also ignores important social factors that may affect project timelines. Public opposition to a project can extend project timelines, drive up costs, and even trigger cancellation.¹⁰³ While commonly dismissed as NIMBYism (“not in my backyard”), public opposition to infrastructure projects is often driven by deeply rooted values, including fear of health risks, concern about lost property values, personal connections to local landscapes, procedural fairness, and mistrust of government authority (especially for tribal communities).¹⁰⁴ Although it rarely originates from a single source, if concerns are left unaddressed, groups with different underlying motives will unite to strengthen their opposition.¹⁰⁵

Researchers have found that the most effective antidote is early engagement with all stakeholders, and that this ultimately saves both time and money.¹⁰⁶ A recent study found that project developers are embracing the view that enhanced community engagement decreases opposition.¹⁰⁷ They highlighted “early local government engagement, maintaining a local office, and making project

95. OFFICE OF INSPECTOR GENERAL, DEPARTMENT OF THE INTERIOR (DOI), *ONSHORE OIL AND GAS PERMITTING* (2014) (Report No. CR-EV-MOA-0003-2013).

96. *Id.* at 6.

97. CEQ, *ENVIRONMENTAL IMPACT STATEMENT TIMELINES (2010-2018)*, at 4 (2020), https://ceq.doe.gov/docs/nepa-practice/CEQ_EIS_TimeLine_Report_2020-6-12.pdf (showing the median time to completion was 3.5 years).

98. *Id.*

99. Ruple et al., *supra* note 19, at 289.

100. *Id.* at 300-06 (describing the variation in data); *id.* at 303-04 (“[T]he fastest 25% of EAs are completed more quickly than the longest 25% of CEs. Likewise, the shortest 25% of EISs are completed more quickly than the longest 25% of EAs.”).

101. OFFICE OF INSPECTOR GENERAL, *supra* note 95.

102. Ruple et al., *supra* note 19, at 306-22.

103. See, e.g., Jed J. Cohen et al., *Re-Focusing Research Efforts on the Public Acceptance of Energy Infrastructure*, 76 ENERGY 4 (2014).

104. Lawrence Susskind et al., *Sources of Opposition to Renewable Energy Projects in the United States*, 165 ENERGY POL’Y 112922, at 2 (2022) (studying 53 renewable energy projects that were delayed or blocked between 2008 and 2021 in 28 states, and identifying the multiple drivers of community opposition); see also Joseph Rand & Ben Hoen, *Thirty Years of North American Wind Energy Acceptance Research: What Have We Learned?*, 29 ENERGY RSCH. & Soc. Sci. 135, 142 (2017) (observing that the “process around wind project planning and development can significantly affect public acceptance”); Christoph Emanuel Mueller, *Examining the Inter-Relationships Between Procedural Fairness, Trust in Actors, Expectations, Perceived Benefits, and Attitudes Towards Power Grid Expansion Projects*, 141 ENERGY POL’Y 111465 (2020) (listing “procedural fairness and process characteristics” as one of several features that affect public acceptance of new high-voltage transmission lines); Cohen et al., *supra* note 103, at 5 (describing welfare-decreasing aspects of new infrastructure that trigger opposition as “diminished viewshed, safety concerns, noise, pollution, landscape destruction, ecological change, decreased property values, and procedural injustice”).

105. Susskind et al., *supra* note 104, at 2.

106. *Id.* at 13 (“Better to deal with perceptions of possible risks and potential benefits before opponents have made up their minds, and banded together, to block the project.”).

107. NILSON ET AL., *supra* note 8, at 3; see also Susskind et al., *supra* note 104, at 10 (acknowledging that NEPA guarantees public participation, but noting that its requirements “are often poorly or inconsistently” used by federal and state agencies, as well as developers).

design changes directly based on community feedback.¹⁰⁸ Rather than being a source of delay, the analysis and public transparency afforded by the NEPA process could be leveraged to facilitate community engagement and reduce the degree and likelihood of public opposition.¹⁰⁹ Meaningful permit reform would encourage earlier public participation, when projects are still in the design phase and alterations are less expensive.

The NEXUS gas transmission pipeline provides an example. This 250-mile natural gas pipeline traverses four eastern states.¹¹⁰ Leveraging early community outreach supported by an alternative permitting process offered by the Federal Energy Regulatory Commission (FERC), the project sponsors incorporated 239 route alternatives and variations in the pipeline design to address landowner requests, avoid sensitive resources, or respond to engineering restraints.¹¹¹ Engaging with communities at the design phase—when it was still feasible to make such significant changes—improved the project design and effects on communities. This is not to say that it eliminated opposition, but it certainly reduced the size of the crowd. If we are thinking about permit reform, strategies like these present a win-win: a better project for the community, and less opposition for the project proponent.

We also know what happens when public processes and environmental protections are absent. The Manhattan Project and the federal Interstate Highway System are often cited as models for rapidly deploying infrastructure. Yet, their legacies are cautionary. The Manhattan Project left an archipelago of highly polluted sites where the components of nuclear weapons were produced, as well as a multibillion-dollar liability taxpayers continue to pay.¹¹² The Interstate Highway System destroyed many communities of color and low-income neighborhoods, and is a testament to the importance of public processes.¹¹³

II. Realities

We just explained why the myths currently surrounding the public debate over permitting reform are wrong. But we can all agree that permitting processes are subject to needless delays. What causes those delays, then? Federal agencies, congressional research offices, and independent technical analyses have identified two principal culprits.

A. Limited Agency Capacity Causes Delay

A familiar refrain from the incoming Trump Administration is the need to achieve efficiency by reducing agency staff and slashing agency budgets.¹¹⁴ In reality, limited agency capacity causes delay. This can take many forms, including meager or unstable budgets, understaffing, and insufficient staff with relevant expertise. This simple explanation to a complex problem has been repeatedly identified as a cause of delay in implementing NEPA and processing other permits.¹¹⁵

For example, in 2003, CEQ convened an Environmental Policy Task Force to investigate the implementation of NEPA.¹¹⁶ The task force, composed of representatives from nine different agencies, conducted extensive research into the “nuts and bolts” of NEPA implementation that included interviews, literature review, and more than 650 comments from federal, state, and local governments, tribes, organizations, and individuals.¹¹⁷ One persistent issue that arose in several different contexts was the delay caused by insufficient agency resources.¹¹⁸

Limited agency capacity tends to go unnoticed because it is hidden. The internal workings of agencies are less visible and less accessible than statutes or regulations, which are contested and publicized. Staff capacity only becomes visible when it is studied and the results are made public. Studies conducted by the nonpartisan U.S. Government Accountability Office (GAO) and other entities provide unique insights into agency operations; however, those

108. NILSON ET AL., *supra* note 8, at 66.

109. *See, e.g.*, Cohen et al., *supra* note 103, at 6:

Procedural aspects of the project have been shown to drive social acceptance in many contexts. These involve the way developers interface with the locals and are summarized as the following: trust in governments or energy providers, procedural justice, public awareness, rhetoric, and inclusion of the public in the decision-making process.

110. OFFICE OF THE EXECUTIVE DIRECTOR, FEDERAL PERMITTING IMPROVEMENT STEERING COUNCIL, RECOMMENDED BEST PRACTICES FOR PROJECT REVIEW AND PERMITTING FOR INFRASTRUCTURE PROJECTS FOR FISCAL YEAR 2018, at 17 (2017).

111. Jamie Pleune & Edward Boling, *This Permit Reform Already Works. Why Aren't More Mine Permit Applicants Using It?*, 53 ELR 10463, 10479 (June 2023), <https://www.eli.info/articles/eli-articles/permit-reform-already-works-why-arent-more-mining-projects-using-it>.

112. Susan Montoya Bryan, *In a Nod to Oppenheimer's Legacy, US Officials Vow to Prioritize Cleanup at Nuclear Lab*, AP NEWS (July 20, 2023), <https://apnews.com/article/manhattan-project-los-alamos-contamination-cleanup-72f927ac643c9ac7c023d882ba57eba4> (reporting that an official from the U.S. Department of Energy (DOE) characterized the multibillion-dollar cleanup program as “the third largest liability on the books for the federal government”); GAO, GAO-23-105665, NUCLEAR WASTE CLEANUP: DOE NEEDS TO ADDRESS WEAKNESSES IN PROGRAM AND CONTRACTOR MANAGEMENT AT LOS ALAMOS 1 (2023) (estimating that the remaining cost of cleaning up Manhattan Project-era waste at Los Alamos is \$7 billion).

113. LUTHER, *supra* note 22, at 5-7.

114. *See, e.g.*, Michael Doyle et al., *Trump Team Could Bring Both Ax and Scalpel to Interior*, E&E NEWS (Nov. 20, 2024), <https://www.eenews.net/articles/trump-team-could-bring-both-ax-and-scalpel-to-interior/>.

115. *See, e.g.*, CONGRESSIONAL RESEARCH SERVICE, *supra* note 18, at 26-27 (summarizing studies investigating causes of delay and noting that many identified “challenges faced by agencies with regard to budget, training, and staffing constraints”).

116. NEPA TASK FORCE, EXECUTIVE OFFICE OF THE PRESIDENT, MODERNIZING NEPA IMPLEMENTATION (2003).

117. *Id.* at 2.

118. *Id.* at 7 (noting that insufficient staff, including experts, led to delays and poor coordination); *id.* at 9-10 (noting that agencies often lack the resources, staff, or knowledge to leverage information technologies that could improve efficiency in the NEPA process); *id.* at 11 (“Insufficient availability of resource experts inhibits the ability of agencies to stay abreast of current research, which in turn causes agencies to ‘reinvent the wheel’ rather than leverage existing information resources.”); *id.* (“Federal agencies noted that they are often hindered by financial and staffing limitations”); *id.* at 62 (noting that limited resources often dictate the timing and quality of an agency’s NEPA actions); *id.* at 77 (noting widespread concerns about the “availability of dollars and skills to prepare quality environmental analyses and documents”); *id.* at 84 (recommending an increase of staff to implement the recommendations in the report).

studies must be requested by Congress.¹¹⁹ For that reason, the visibility of this problem can ebb and flow with politics, even if the condition is chronic. Despite this challenge, careful research reveals ample evidence across time and context demonstrating the influence of agency capacity on permit processing times.

One high-profile context is highway planning. In 2003, GAO investigated causes of delay in the environmental review of highway projects.¹²⁰ They interviewed stakeholders from both the transportation and environmental sectors to identify common causes of delay.¹²¹ Both groups agreed that undue delay was frequently added to environmental reviews because agencies “lack sufficient staff to handle their responsibilities in a timely manner.”¹²²

Five years later, after Congress had passed a bill designed to improve the efficiency of the environmental review process for highway planning,¹²³ GAO conducted another study to evaluate the efficacy of the bill’s streamlining measures.¹²⁴ Even though there was broad agreement that coordination would improve transportation planning, participants at all levels of government stated that the primary barrier to success was a lack of resources.¹²⁵ Without sufficient staff, agencies lacked the capacity to engage in proactive efficiency measures, like early planning and improved coordination.¹²⁶ To achieve efficiency, the participants recommended that funding for the agencies responsible for protecting environmental resources be expanded.¹²⁷

Ten years later, in 2018, GAO conducted another study of environmental review timelines for federal highway projects.¹²⁸ At this point, Congress had passed two additional acts designed to streamline the environmental review process.¹²⁹ There was mixed evidence on whether the streamlining measures targeting the NEPA process improved timelines.¹³⁰ However, one measure stood out. In 2000, Congress passed the Water Resources Development Act.¹³¹ An obscure provision authorized the Corps to accept funds contributed by nonfederal public entities to expedite

the evaluation of permits.¹³² A similar provision expanded this authority for federal-aid highways.¹³³

GAO’s investigation revealed that 21 of the 23 selected state DOT and federal agency field offices used this provision to expand staff capacity through liaison positions that facilitated coordination with state DOTs on highway permitting and environmental reviews.¹³⁴ GAO found that the liaisons increased administrative efficiency and avoided delays.¹³⁵ As one state DOT explained, having a dedicated liaison created “a responsive point of contact, helped address workload concerns . . . , and enabled [federal agency] office staff to attend interagency coordination meetings.”¹³⁶ In 2018, 32 out of 52 state DOTs had used this provision to create liaison positions, and the majority (23 out of 32) stated that it sped up project delivery within their states.¹³⁷

Mine permitting is another comprehensively studied context in which agency capacity has long been identified as a significant cause of delay. In 1999, Congress directed the National Research Council (NRC) to investigate hard-rock mining on federal lands, including causes of delay in the permitting process.¹³⁸ One of their findings was that “[s]taff shortages are likely to be at least partially responsible for the excessive delays experienced in NEPA reviews and issuance of permits.”¹³⁹ The NRC went on to note:

Some land management offices report that they have too few people to conduct inspections, review proposed operating plans, process appeals, and conduct other required activities. This concern extends beyond the numbers of people. . . . Offices responsible for regulating mining projects may not always have access to the trained and experienced personnel required.¹⁴⁰

In other words, there are two distinct elements to agency capacity: (1) staff availability and (2) expertise or institutional knowledge. As the NRC recognized, both elements affect permitting times.

In 2016, GAO did a separate investigation of hard-rock mine permitting on federal lands.¹⁴¹ One of the primary causes of delay GAO identified was “limited resources.”¹⁴² Both BLM and Forest Service officials explained that a

119. GAO, *What the GAO Does: Reports & Testimonies: The Report Process*, <https://www.gao.gov/about/what-gao-does/reports-testimonies> (last visited Dec. 5, 2024).

120. GAO, GAO-03-534, *HIGHWAY INFRASTRUCTURE: STAKEHOLDERS’ VIEWS ON TIME TO CONDUCT ENVIRONMENTAL REVIEWS OF HIGHWAY PROJECTS* (2003).

121. *Id.* at 20.

122. *Id.* at 22 (noting that this was cited as a cause of delay by 69% of the transportation stakeholders and 50% of the environmental stakeholders).

123. Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Pub. L. No. 109-59, 119 Stat. 1144 (2005).

124. GAO, GAO-08-512R, *HIGHWAYS AND ENVIRONMENT: TRANSPORTATION AGENCIES ARE ACTING TO INVOLVE OTHERS IN PLANNING AND ENVIRONMENTAL DECISIONS* (2008).

125. *Id.* at 17 (“The primary challenge is limited resource agency resources, including funding, staff, and time.”); *see also id.* at 14, 21, 23.

126. *Id.* at 23.

127. *Id.* at 21.

128. GAO, GAO-18-536, *HIGHWAY AND TRANSIT PROJECTS, BETTER DATA NEEDED TO ASSESS CHANGES IN THE DURATION OF ENVIRONMENTAL REVIEWS* (2018).

129. *Id.* at 2; Moving Ahead for Progress in the 21st Century Act (MAP-21), Pub. L. No. 112-141, 126 Stat. 405 (2012); Fixing America’s Surface Transportation (FAST) Act, Pub. L. No. 114-94, 129 Stat. 1312 (2015).

130. GAO, *supra* note 128, at 3, 8-9.

131. Pub. L. No. 106-541, 114 Stat. 2572.

132. *Id.* tit. II, §214, 114 Stat. at 2594 (codified as amended at 33 U.S.C. §2352).

133. 23 U.S.C. §139(j) (authorizing the Secretary of Transportation to allow a public entity receiving financial assistance from DOT to provide funds to federal agencies, state agencies, and Indian tribes participating in the process for the project or program in order to expedite or improve the permitting and review process).

134. GAO, *supra* note 128, at 10.

135. *Id.*

136. *Id.* at 11.

137. *Id.*

138. NRC, *HARDROCK MINING ON FEDERAL LANDS 1* (1999).

139. *Id.* at 74.

140. *Id.* at 115.

141. GAO, *HARDROCK MINING: BLM AND FOREST SERVICE HAVE TAKEN SOME ACTIONS TO EXPEDITE THE MINE PLAN REVIEW PROCESS BUT COULD DO MORE* 6-7 (2016).

142. *Id.* at 22 (listing those resources as “number of staff, staff expertise, funding, infrastructure training and/or computer technology”).

lack of staff in certain critical positions, like archeologists and biologists, delayed NEPA analyses by causing “bottle-necks” in the review process.¹⁴³

This problem has persisted over time. In 2022, the Interagency Working Group on Mining Laws, Regulations, and Permitting (IWG) was charged with studying the permitting process for hard-rock mining.¹⁴⁴ One of the report’s overarching “hard truths” focused on the delays caused by a lack of agency resources.¹⁴⁵ The report found that “[s]taffing shortages undermine efforts to coordinate across agencies, inviting inconsistency, redundancy, inefficiency, and delay.”¹⁴⁶ The report concluded that “inadequately staffed and under-resourced agencies are ill-equipped to swiftly process permit applications and associated environmental reviews.”¹⁴⁷

The consistency of these observations—across agencies, practices, and time—demonstrates that advocates of permitting reform must address the limits of agency capacity to achieve meaningful improvements in the timing and predictability of permitting processes. Permit reform proposals should address this reality.

B. Inconsistent and Overlapping Standards Across Jurisdictions Cause Delay

Inconsistent and overlapping permitting and approval processes that have nothing to do with environmental restrictions are a major source of delay.¹⁴⁸ In the context of renewable development, for example, there is widespread agreement that obtaining approval to interconnect projects to transmission grids is the greatest obstacle to deployment.¹⁴⁹ This process involves complex modeling to determine whether a project is compatible with existing grid capacity and, if it is not, the upgrades that will be required to accommodate it.¹⁵⁰ While these studies are essential to maintaining grid reliability, they are difficult and time-consuming to conduct.¹⁵¹

Nationally, the average time it takes to obtain an interconnection agreement is 2.5 years, and it has been rising as

interconnection queues have been flooded with new projects.¹⁵² In a recent survey of wind and solar developers conducted by researchers at the Lawrence Berkeley National Laboratory, more than 70% of solar developers and 65% of wind developers surveyed identified “grid interconnection” as the leading cause of delays exceeding six months.¹⁵³ By contrast, only 12%-16% of them named “environmental restrictions” as a source of significant delays.¹⁵⁴

Local approval processes and zoning ordinances are also increasingly a major barrier to renewable energy development.¹⁵⁵ In a 2022 study published in *Nature*, the authors identified more than 1,800 ordinances for wind projects and 800 ordinances for solar projects that either precluded development or strictly limited it, often through large set-back requirements or height limits.¹⁵⁶ The authors concluded that the growing number of restrictive zoning ordinances could reduce wind and solar resources by up to 87% and 38%, respectively.¹⁵⁷ Local laws also increased the potential for delays associated with conflicting state and local regulations.¹⁵⁸

In most states, renewable projects must obtain a permit at either the state or local level. While several states have elevated permitting of renewable projects to a state agency,¹⁵⁹ project developers typically must obtain “special use permits” through a county or municipal commission. Further, where permitting at the state level is guided by technical legislative criteria and the decision-makers have relevant expertise and experience, local commissions are usually staffed by elected laypeople, the decisions are discretionary, and the process is open to political pressure. Accordingly, even where restrictive zoning ordinances have not been enacted, permit requests are increasingly being rejected by local commissions responding to public pressure.¹⁶⁰

Opposition at the state and local levels raises difficult questions about the appropriate balance of local, state, and

143. *Id.* at 25-26.

144. IWG, RECOMMENDATIONS TO IMPROVE MINING ON PUBLIC LANDS, FINAL REPORT 3 (2023).

145. *Id.* at 4.

146. *Id.*

147. *Id.* at 4-5.

148. NILSON ET AL., *supra* note 8, at 12-13 (a survey of developers that found most delays and cancellations of wind and solar projects were attributable to local ordinances and zoning, grid interconnection approvals, and community opposition; environmental restrictions were cited by only 12%-16% of the project developers).

149. Ryan Block, *Lost in Transmission: How to Bring More Clean Energy Onto the Grid*, 53 ELR 10726, 10732 (Sept. 2023), <https://www.elr.info/articles/elr-articles/lost-transmission-how-bring-more-clean-energy-grid> (providing a succinct and readable description of the interconnection process); see also RAND ET AL., *supra* note 94, at 3 (finding that the “typical project built in 2023 took nearly 5 years from the interconnection request to commercial operations, compared to 3 years in 2015 and <2 years in 2008”).

150. Block, *supra* note 149, at 10733 (“The feasibility study, impact study, and facilities study must be completed in the order listed, successively, without overlap.”).

151. *Id.*

152. RAND ET AL., *supra* note 94, at 34-36.

153. NILSON ET AL., *supra* note 8, at 12.

154. *Id.* at 11-12.

155. MATTHEW EISENSON, SABIN CENTER FOR CLIMATE CHANGE LAW, OPPOSITION TO RENEWABLE ENERGY FACILITIES IN THE UNITED STATES: MAY 2023 EDITION 6 (2023) (concluding that “not in my backyard” and other objections to renewable energy continue to occur throughout the country and can delay or impede project development”).

156. Anthony Lopez et al., *Impact of Siting Ordinances on Land Availability for Wind and Solar Development*, 8 NATURE ENERGY 1034, 1034-35 (2023).

157. *Id.*

158. Steve Ferrey, *Flipped Constitutional Supremacy: Inferior Local Law Blocking Federal Policy*, 23 UTAH L. REV. 65, 66, 94-108 (2023) (noting that federal renewable energy tax incentives are being “eclipsed by municipal governments legally ‘zoning out’ such sustainable infrastructure”); Danielle Stokes, *Renewable Energy Federalism*, 106 MINN. L. REV. 1757, 1761 (2022) (describing how siting renewable energy projects can be “costly and time consuming given the fragmented regulatory regime”).

159. See Uma Outka, *Renewable Energy Siting for the Critical Decade*, 69 U. KAN. L. REV. 857, 864-68 (2021) (describing the primary features of a New York law centralizing siting decisions in a new state agency).

160. NILSON ET AL., *supra* note 8, at 11-12 (citing local opposition as among the top three causes of project cancellations and delays); EISENSON, *supra* note 155, at 1 (observing that local opposition “is widespread and growing, and represents a potentially significant impediment to achievement of climate goals”).

federal control.¹⁶¹ Similar conflicts between different levels of government are playing out across a host of issues, including federal protections for wetlands and local regulations for promoting greater density in cities. Public opposition to renewable energy projects and transmission lines, and the resulting conflicts with state and federal authorities, are examples of this broader phenomenon around federalism that shows few signs of resolution. By comparison, the potential delays and barriers associated with federal environmental permitting appear to be less acute and more tractable, as demonstrated by the regulatory streamlining already in place.

The regulatory barriers to infrastructure projects should also not be viewed in isolation. Project development has many nonregulatory steps that must be completed, including technical assessments (e.g., resource, grid interconnection, electricity market), land acquisition, financial modeling, project design, financing, equipment procurement, and construction. Developers must balance multiple factors (availability of land, quality of resource, access to the grid, regulatory mandates) to select a project, and it is rare that a single factor will be determinative.

The number and complexity of these steps require significant time to work through (typically four to six years), and this is true of even relatively straightforward projects in favorable settings. For example, in Texas, there is almost no federal land, grid interconnection is relatively quick, virtually no projects are subject to NEPA or require a federal permit, local permitting is rarely required, and land is relatively inexpensive to lease and plentiful. Yet, solar projects in Texas currently take three to five years to develop. Thus, while navigating federal environmental laws is an important factor, it is one among a multitude and for many projects it is not the rate-limiting one.

III. Promising Pathways and Models for Permit Reform

While the external public debate and recent legislative action have focused largely on NEPA, the permitting action plans within the federal executive branch are both broader and focused on concrete opportunities for enhancing the efficiency and speed of permitting processes. The two tracks overlap in important respects, such as their focus on improving coordination within and across federal agencies, but they diverge in their underlying premises and strategies. Another difference is that the permitting action plans have received minimal media coverage or academic attention—a reality that has stifled meaningful discussion about permit reform possibilities.

The permitting action plans within the federal government are much more holistic in their approach and priorities. The premise of the action plans developed during the Barack Obama and Joseph Biden Administrations is that the principal problems are with interagency and intra-agency coordination, public outreach, agency resources,

and information management.¹⁶² Importantly, the strategies they propose are not grounded in specific statutes but are instead trans-substantive. The most prominent ones include the following:

1. Creating administrative frameworks for interagency and intra-agency coordination;
2. Establishing meaningful performance indicators;
3. Identifying and implementing “best practices” and “lessons learned”;
4. Employing proactive planning to limit or avoid federal environmental reviews and permitting, such as use of programmatic EISs and biological opinions;
5. Making scientific, environmental, and other key information readily available to agency decisionmakers, developers, and stakeholders;
6. Ensuring agencies have adequate personnel and resources, including personnel with sufficient training and experience; and
7. Embracing proactive public outreach and engagement, particularly with state and local governments, tribes, and environmental justice communities.

Individual agencies have also adopted innovative practices to improve the functionality of their permitting processes. These efforts demonstrate that improvements to efficiency and quality can go hand-in-hand. With deliberation and creativity, permit reform could achieve better timeliness and transparency while also strengthening the regulatory tools intended to protect public safety and natural resources. Below, we discuss three examples of actions that agencies have already taken to improve transparency, predictability, timeliness, and coordination.

A. FAST-41 and the Permitting Council

The success of the structures created under Title 41 of the Fixing America’s Surface Transportation Act (FAST-41) demonstrates that permitting speed need not come at the expense of careful analysis and meaningful public engagement.¹⁶³ FAST-41, passed in 2015, includes structures, procedures, and tools intended to facilitate timely,

162. See THE WHITE HOUSE, BIDEN-HARRIS PERMITTING ACTION PLAN TO REBUILD AMERICA’S INFRASTRUCTURE, ACCELERATE THE CLEAN ENERGY TRANSITION, REVITALIZE COMMUNITIES, AND CREATE JOBS (2022), <https://www.whitehouse.gov/wp-content/uploads/2022/05/Biden-Harris-Permitting-Action-Plan.pdf>; STEERING COMMITTEE ON FEDERAL INFRASTRUCTURE PERMITTING AND REVIEW PROCESS IMPROVEMENT, IMPLEMENTATION PLAN FOR THE PRESIDENTIAL MEMORANDUM ON MODERNIZING INFRASTRUCTURE PERMITTING (2014), <https://www.permits.performance.gov/sites/permits.dot.gov/files/2021-03/pm-implementation-plan-2014.pdf>.

163. Pub. L. No. 114-94, div. D, tit. XLI, §41003, 129 Stat. 1312, 1747-55 (2015) (42 U.S.C. §§4370m-4370m-11).

161. Outka, *supra* note 159, at 862-64.

transparent, and predictable federal authorizations and environmental reviews.¹⁶⁴ It also created a process to facilitate timely permitting processes for individual projects in defined sectors.¹⁶⁵

FAST-41 vested responsibility for the oversight and management of these initiatives in the Federal Permitting Improvement Steering Council (Permitting Council).¹⁶⁶ The Permitting Council is led by an executive director appointed by the president,¹⁶⁷ and members of the Permitting Council include the chair of the White House CEQ and the director of the White House Office of Management and Budget, as well as designees of major regulatory agencies.¹⁶⁸

The Permitting Council is responsible for recommending policies and administrative structures that can be employed by all Permitting Council agencies to foster accountability, coordination, efficient conflict resolution, and information-sharing.¹⁶⁹ For example, FAST-41 requires that the Permitting Council “aim to develop recommended performance schedules . . . of not more than 2 years,” or explain why that timeline cannot be met.¹⁷⁰ The Permitting Council must publish an annual “Recommended Best Practices Report” for Permitting Council agencies and prepare quarterly and annual reports to Congress summarizing their compliance with the Permitting Council’s recommendations.¹⁷¹ The Permitting Council’s website aggregates useful information for permitting entities, project proponents, and stakeholders, such as an inventory of permitting requirements across the federal government.¹⁷²

FAST-41 establishes a program to facilitate timely, transparent, and streamlined environmental reviews and authorizations for covered projects.¹⁷³ Entry into the pro-

gram is voluntary, and initiated by a project sponsor submitting a notice to the Permitting Council and Permitting Council-identified “facilitating agency” of its intent to develop a covered project and to seek FAST-41 coverage.¹⁷⁴ A series of timed obligations promptly follows. Within 14 days, the Permitting Council must verify that the project is eligible for coverage.¹⁷⁵ If it is eligible, then information about the project must be posted to the Permitting Dashboard, a searchable online database that tracks the status of all FAST-41 covered projects.¹⁷⁶ The Permitting Council then has an additional 21 days to identify cooperating and participating agencies to join in the permitting process.¹⁷⁷

Within 60 days after the project’s eligibility is confirmed, the facilitating or lead permitting agency must work with other participating agencies to establish a “coordinated project plan” (CPP).¹⁷⁸ The CPP is a “concise plan for coordinating public and agency participation in, and completion of, any required Federal environmental review and authorization for the project.”¹⁷⁹ The CPP must also include a permitting timetable.¹⁸⁰ Once a CPP is in place, the responsible agencies must adhere to the plan, and timetable dates can be modified only if particular procedures are followed, including the submission of a written extension request and justification for any delay.¹⁸¹ Throughout the process, the project’s progress is tracked on the Permitting Dashboard.¹⁸²

To date, the FAST-41 process has been effective but underutilized.¹⁸³ In fiscal year 2023, 33 FAST-41 projects were in the program.¹⁸⁴ Permitting Council agencies prepared CPPs for 11 projects, and all CPPs were submitted by the 60-day deadline.¹⁸⁵ Most completion dates identified in the permitting timetables were either met on time or modified in accord with established procedures.¹⁸⁶ During the first quarter of fiscal year 2024, of the 27 federal deadlines, 15 were met, 7 were modified, and only 5 were

164. 42 U.S.C. §4370m.

165. *Id.* §4370m-2.

166. *Id.* §4370m-1. The Permitting Council was initially subject to a seven-year sunset; the Bipartisan Infrastructure Law (formally called the Infrastructure Investment and Jobs Act) repealed the sunset provision. Pub. L. No. 117-58, div. G, tit. VII, §70801(h), 135 Stat. 429, 1294 (2021).

167. 42 U.S.C. §4370m-1(b)(1).

168. The agency members include the Secretaries of Agriculture, Army, Commerce, Interior, Energy, Transportation, Homeland Security, and Housing and Urban Development; the Administrator of EPA; the Chairman of the Nuclear Regulatory Commission; the Chairman of the Advisory Council on Historic Preservation; and the head of any other federal agency the Permitting Council’s executive director invites to participate. *Id.* §4370m-1(b)(2)(B).

169. See Pleune & Boling, *supra* note 111, at 10468 (describing the Permitting Council’s four primary benefits); see also FEDERAL PERMITTING IMPROVEMENT STEERING COUNCIL, ANNUAL REPORT TO CONGRESS: FISCAL YEAR 2023, at 3 (2023), <https://www.permits.performance.gov/sites/permits.dot.gov/files/2024-04/Permitting%20Council%20FY23%20Annual%20Report%20to%20Congress.pdf> (explaining that the Permitting Council has embraced its role “as a Federal center for permitting excellence” by “provid[ing] resources and tools to [its] Federal partners that will help them conduct the necessary environmental reviews and authorizations effectively and efficiently”).

170. 42 U.S.C. §4370m-1(c)(1)(C)(ii)(II).

171. *Id.* §4370m-1(c)(2)(B); see also Permitting Dashboard, *Reports and Publications*, <https://www.permits.performance.gov/fpisc-content/reports-and-publications> (last updated Nov. 21, 2024).

172. Permitting Dashboard, *Federal Environmental Review and Authorization Inventory*, <https://www.permits.performance.gov/tools/federal-environmental-review-and-authorization-inventory> (last updated Sept. 10, 2021).

173. 42 U.S.C. §4370m-2. Covered projects are those that meet defined criteria and fall within at least one of several sectors defined in FAST-41: “renewable

or conventional energy production, electricity transmission, surface transportation, aviation, ports and waterways, water resource projects, broadband, pipelines, manufacturing, semiconductors, artificial intelligence and machine learning, high-performance computing and advanced computer hardware and software, quantum information science and technology, data storage and data management, cybersecurity, carbon capture, [or] energy storage.” *Id.* §4370m. The Permitting Council added mining as a covered sector in 2021. Adding Mining as a Sector of Projects Eligible for Coverage Under Title 41 of the Fixing America’s Surface Transportation Act, 86 Fed. Reg. 1281 (Jan. 8, 2021).

174. 42 U.S.C. §4370m-2(a)(1) (describing project initiation process); see Permitting Dashboard, *Project Type and Facilitating Agency*, <https://www.permits.performance.gov/tools/project-type-and-facilitating-agency> (last updated Dec. 11, 2024) (identifying facilitating agencies by project type).

175. 42 U.S.C. §4370m-2(b)(2)(C).

176. *Id.* §4370m-2(b)(1)(A).

177. *Id.* §4370m-2(a)(2), (3).

178. *Id.* §4370m-2(c)(1).

179. *Id.*

180. *Id.* §4370m-2(c)(2) (the timetable must include “intermediate and final completion dates for action by each participating agency on any Federal environmental review or authorization required for the project”).

181. *Id.* §4370m-2(c)(2)(F).

182. *Id.* §4370m-1(b)(4).

183. Pleune & Boling, *supra* note 111, at 10469.

184. FEDERAL PERMITTING IMPROVEMENT STEERING COUNCIL, *supra* note 169, at 9-10.

185. *Id.* at 28-29.

186. *Id.* at 30-31.

missed.¹⁸⁷ The initial trends suggest that FAST-41 projects are permitted more quickly than projects subject to traditional procedures.¹⁸⁸

Notably, these efficiencies were achieved not by removing statutory or regulatory requirements, but by transparently tracking permitting processes and facilitating coordination both within and outside the federal government.¹⁸⁹ Indeed, FAST-41 states expressly that nothing within it “supercedes, amends, or modifies any Federal statute or affects the responsibility of any Federal officer to comply with or enforce any statute.”¹⁹⁰ Nor does it “create[] a presumption that a covered project will be approved or favorably reviewed by any agency.”¹⁹¹ The efficacy of FAST-41 demonstrates that it is not necessary to sacrifice regulatory rigor in order to improve timeliness and predictability, even for complex infrastructure projects.

B. FERC’s Integrated Licensing Process: Fostering Early Public Participation

The Federal Power Act requires hydropower projects occurring on lands or waters under federal control to operate under licenses granted by FERC.¹⁹² The licensing and relicensing processes are comprehensive and time-consuming. Licenses must comply with a host of federal and state environmental statutes, including NEPA, the CWA, the ESA, and others. In addition to the licensee and FERC, many other agencies and parties may be involved, including federal wildlife and land management agencies, tribes, state agencies, and affected stakeholders.¹⁹³

For decades, FERC processed requests for licenses and license renewals under what is now called the “traditional licensing process.” That process proceeded sequentially, with associated deadlines for each step.¹⁹⁴ The licensee would generate a plan to study the project’s effects based on stakeholder recommendations but without involvement from FERC, which typically became involved only

after the licensee filed its application.¹⁹⁵ Formal stakeholder engagement and environmental reviews occurred at specified stages during the relicensing process.¹⁹⁶

In 2003, FERC adopted a new “integrated licensing process” intended to address the principal causes of delay associated with the traditional process—namely, “the need for additional information or studies after the application is filed,” the untimely receipt of environmental studies from federal and state agencies, failures to resolve disagreements over requests to gather information or conduct additional studies, and requests for extensions of time.¹⁹⁷

Unlike the sequence-driven traditional process, the integrated process includes several concurrent steps and substantial coordination before the application is filed. Under the integrated process, all prospective license applicants begin by preparing two documents—a notification of intent and a pre-application document. These are distributed to FERC, state and federal agencies, tribes, local governments, and public stakeholders.¹⁹⁸ The pre-application document includes information about the hydropower facilities, potential effects on the environment, preliminary issues and studies, and an appendix describing contacts with stakeholders to date.¹⁹⁹

The submission of the notice and pre-application document triggers several deadlines. Within 30 days, FERC staff must meet with any tribe likely to be affected by the proposed project.²⁰⁰ And after the pre-application document is filed, FERC must file a notice that triggers a 60-day period in which stakeholders can comment and make study requests.²⁰¹ While these processes proceed, the applicant and FERC engage in project scoping.²⁰² There is also a formal mechanism for resolving study disputes prior to the application filing date.²⁰³ Only after the applicant, FERC, and interested third parties have engaged in this iterative planning process will the application be filed.²⁰⁴

The integrated licensing process was designed to incorporate FERC staff input earlier in the planning process, to increase public participation at each stage, and to coordinate environmental review processes and avoid delays.²⁰⁵ In many respects, it has succeeded. Feedback FERC collected from licensees, other agencies, and stakeholders indicates that the process reduces uncertainty and results

187. OFFICE OF THE EXECUTIVE DIRECTOR, FEDERAL PERMITTING IMPROVEMENT STEERING COUNCIL, QUARTERLY AGENCY PERFORMANCE REPORT: FISCAL Q1 2024 (OCTOBER-DECEMBER) 15 (2024), <https://www.permits.performance.gov/sites/permits.dot.gov/files/2024-03/Permitting%20Council%20FY24Q1%20Quarterly%20Performance%20Report.pdf>; see also Pleune & Boling, *supra* note 111, at 10469-70 (identifying similar consistency in prior years).

188. Pleune & Boling, *supra* note 111, at 10470 (recognizing that, on average, EISs subject to the FAST-41 process are completed years earlier than EISs completed across all agencies under traditional processes).

189. *Id.* at 10469 (“Notably, the procedures in FAST-41 and the duties of the Permitting Council do not elevate speed over excellent deliberation.”).

190. 42 U.S.C. §4370m-6(d); see *id.* §4370m-11 (“Nothing in this subchapter amends the National Environmental Policy Act of 1969”) (internal citation omitted).

191. *Id.* §4370m-6(d).

192. 16 U.S.C. §797(e); see 18 C.F.R. pt. 5.

193. 18 C.F.R. §§4.34, 4.38, pt. 16; see also KELSI BRACMORT ET AL., CONGRESSIONAL RESEARCH SERVICE, R42579, HYDROPOWER: FEDERAL AND NONFEDERAL INVESTMENT 25-26 (2015), <https://crsreports.congress.gov/product/pdf/R/R42579>.

194. See 18 C.F.R. §§4.38 (original licenses), 16.8 (relicense); see also BRACMORT ET AL., *supra* note 193, at 25-26.

195. BRACMORT ET AL., *supra* note 193, at 25; see also AARON LEVINE & AUSTIN FLANAGAN, NATIONAL RENEWABLE ENERGY LABORATORY, FERC HYDROPOWER LICENSING: A REVIEW OF UTILIZATION OF THE ILP, TLP, AND ALP xc (2019), <https://www.nrel.gov/docs/fy19osti/71982.pdf>.

196. LEVINE & FLANAGAN, *supra* note 195, at 3.

197. Hydroelectric Licensing Under the Federal Power Act, 68 Fed. Reg. 13988, 13990-91 (Mar. 21, 2003); see 18 C.F.R. pt. 5.

198. 18 C.F.R. §§5.5 (describing notification of intent), 5.6 (describing pre-application document).

199. *Id.* §5.6(d).

200. *Id.* §5.7.

201. *Id.* §5.9.

202. *Id.* §§5.8-.9.

203. *Id.* §5.14.

204. *Id.* §5.17.

205. Hydroelectric Licensing Under the Federal Power Act, 104 FERC ¶ 61109 (2003). The integrated licensing process became the default for all licenses and relicenses sought after July 2005. *Id.*

in better outcomes overall.²⁰⁶ Recent studies also show that the integrated licensing process generally takes less time,²⁰⁷ and that its collaborative foundation produces licenses that respond to a broader variety of stakeholder concerns and include protective measures that are more likely to be implemented.²⁰⁸

Despite these important benefits, a 2021 study conducted by the National Renewable Energy Laboratory highlights several continuing challenges, including staff turnover, inadequate agency resources, and inadequate stakeholder resources to stay engaged during a lengthy process.²⁰⁹ The success of the integrated licensing process demonstrates that the permitting processes can be improved and made more efficient without sacrificing regulatory standards. In particular, encouraging and facilitating early public engagement at the design phase of a project has yielded benefits enjoyed by both project proponents and communities. Conversely, the challenges faced by the integrated licensing process further underscores the importance of ensuring adequate agency staff and the importance of making public engagement as easy and accessible as possible.

C. FWS' "Information for Planning and Consultation" System: Incorporating Environmental Considerations Into Project Design

As explained in Part I, permitting processes can be undermined by inadequate agency expertise and experience, delays associated with time-intensive data collection, and the friction associated with interagency coordination. FWS' Information for Planning and Consultation (IPaC) decision support system was developed to mitigate these types of barriers to efficient implementation of §7 consultations under the ESA. As discussed in Section I.B, federal agencies must consult with FWS if an action it is taking, funding, or approving may affect a listed species under the ESA.

The consultation process can be delayed by a variety of resource and staffing constraints. Staff at the consulting

agency and FWS may lack the time and resources necessary to initiate and complete consultation in a timely manner.²¹⁰ Inconsistent training and standards across FWS offices and among field-office personnel may yield inconsistent results or interagency disagreement.²¹¹ And uncertainty about whether certain impacts meet a given statutory or regulatory threshold can create additional delays, inconsistent results, and litigation risk.²¹²

The IPaC system was designed to address these issues.²¹³ The system, which was created in 2010 and subsequently evolved significantly, is a free web-based geospatial tool that provides scientific information to inform compliance with §7.²¹⁴ Once the action agency submits information about the site of the proposed project and affected area, the IPaC system provides a list of threatened and endangered species in the area and identifies critical habitat. It also recommends measures to minimize impacts on listed species and, if appropriate, provides an automated concurrence letter confirming that no consultation is necessary. In some instances, the system can determine whether a project will affect a listed species (or critical habitat) and provide a biological assessment that initiates the formal consultation process.²¹⁵

By aggregating existing scientific information for automated access, the system ensures that agencies do not waste time re-collecting data. By making the information available online and on-demand, the system eliminates lags associated with coordinating interagency communications. By generating biological assessments for submission to the consulting agency, the system allows busy agency staff to devote their time to other tasks.

The system also yields a simpler, more effective application process. Use of the system decreases uncertainty associated with data collection and ensures compliance with

206. FERC, INTEGRATED LICENSING PROCESS EFFECTIVENESS EVALUATION FEEDBACK 2010, at 7, 10 (2011), <https://www.ferc.gov/sites/default/files/2020-04/Summaryofcomments.pdf>.

207. Brenda M. Pracheil et al., *Influence of Project Characteristics, Regulatory Pathways, and Environmental Complexity on Hydropower Licensing Timelines in the US*, 162 ENERGY POL'Y 1, 8-10 (2022) (describing observation that the average licensing timeline is on average two years shorter under the integrated licensing process than under the traditional process and that timelines were less variable overall); but see Nicola Ulibarri, *Does Collaboration Affect the Duration of Environmental Permitting Processes?*, 61 J. ENV'T PLAN. & MGMT. 617, 628 (2017) (concluding that the integrated licensing process "incentivized better coordination between the various authorizing agencies" but "did not lead to faster application development").

208. Nicola Ulibarri, *Tracing Process to Performance of Collaborative Governance: A Comparative Case Study of Federal Hydropower Licensing*, 43 POL'Y STUD. J. 283, 299 (2015).

209. AARON LEVINE ET AL., NATIONAL RENEWABLE ENERGY LABORATORY, AN EXAMINATION OF THE HYDROPOWER LICENSING AND FEDERAL AUTHORIZATION PROCESS 81-82 (2021), <https://www.nrel.gov/docs/fy22osti/79242.pdf>.

210. Malcom & Li, *supra* note 44, at 15848 (confirming that in 2015, a "substantial portion" of formal consultations conducted by FWS took longer than the statutory maximum, and that, in 2014, less than 30% of the NMFS' consultations were completed on time).

211. See Donald C. Baur & Michael J. Bean, *A Recovery Plan for the Endangered Species Act*, SR021 ALI-ABA 77, 82 (2009).

212. ERIN H. WARD & PERVAZE A. SHEIKH, CONGRESSIONAL RESEARCH SERVICE, R46867, ENDANGERED SPECIES ACT (ESA) SECTION 7 CONSULTATION AND INFRASTRUCTURE PROJECTS 1-2 (2021), <https://crsreports.congress.gov/product/pdf/R/R46867>.

213. FWS, *IPaC Information for Planning and Consultation*, <https://ipac.ecosphere.fws.gov/> (last visited Dec. 5, 2024).

214. The IPaC tool is specific to projects that would require consultation with FWS, but NMFS also offers several online mapping tools for specific regions. See, e.g., NMFS National Oceanic and Atmospheric Administration (NOAA) Fisheries, *The Greater Atlantic Region ESA Section 7 Mapper*, <https://www.fisheries.noaa.gov/resource/map/greater-atlantic-region-esa-section-7-mapper> (last updated June 22, 2023); NMFS NOAA Fisheries Alaska Region Protected Resources Division, *Species Distribution Mapper*, <https://alaskafisheries.noaa.gov/portal/apps/webappviewer/index.html?id=446543503a2e4660b0f5ee55e6407d27> (last visited Dec. 5, 2024); NMFS NOAA Fisheries West Coast Region, *Protected Resources App*, <https://www.webapps.nwfsc.noaa.gov/portal/apps/webappviewer/index.html?id=7514c715b8594944a6e468dd25aaacc9> (last visited Dec. 5, 2024); NMFS NOAA Fisheries, *Resources: Science & Data*, <https://www.fisheries.noaa.gov/resources/maps> (last visited Dec. 5, 2024).

215. FWS, NOW AVAILABLE IN IPaC: DEVELOP A BIOLOGICAL ASSESSMENT USING "CONSULTATION PACKAGE BUILDER," https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd923405.pdf (describing IPaC's "consultation package builder" function).

various legal and regulatory requirements. It also produces better environmental outcomes by ensuring that regulated entities are aware of the potential effects of their actions upfront and allowing agency staff to focus their attention on the consultations that merit additional attention.

The IPaC system has been well received and has saved users and agency staff significant time.²¹⁶ FWS estimates that use of the system saved FWS staff 123,714 hours—more than 14 years—of time between October 2018 and July 2022.²¹⁷ In fiscal year 2022, the IPaC program produced 103,500 official species lists and 23,425 streamlined consultation documents,²¹⁸ “sav[ing] the equivalent of 22 employees” and providing substantial “assist[ance] with about 25% of the consultation workload.”²¹⁹ The IPaC example demonstrates that leveraging technology is another way to simplify and streamline the permitting process without compromising regulatory standards. Permit reform proposals should include funding and support for similar solutions in other fields.

IV. Conclusion: A Call for More Research

We agree that permit reform should continue to be a high priority. However, deregulatory approaches, such as arbitrary limits on NEPA processes, exemptions from environmental review, and eliminating agency staff, are fundamentally misconceived and misdirected. They compromise community input, enforcement of health and safety standards, and environmental safeguards, without providing meaningful progress in the race to mitigate climate change.

Deregulation does not address the institutional, technical, and administrative causes of delay. Managing a team of experts, interfacing with affected community members, coordinating the requirements of different permitting authorities, reconciling conflicting legal authorities, and recognizing competing state and local laws are hurdles that cannot be solved by eliminating environmental standards. Practical problems like insufficient budgets, a lack of staff

to process permits, antiquated data management systems, and onerous procurement policies for external contractors also contribute to delay. Permit reform should target these functional problems.

On the policy side, permit reform should focus on strengthening administrative tools to mitigate conflicting regulatory standards, consolidate duplicative requirements, and align overlapping jurisdictions. Future research should investigate recent reforms targeting these problems and develop metrics for assessing efficacy. Programs like FAST-41 and the Permitting Council, FERC’s integrated licensing process, and FWS’ IPaC system are examples of promising developments that target the root causes of delay, and should be used as models for programs in other agencies.

Finally, permitting reform should not lose sight of the values served by permitting and the risks associated with compromising those values. First, hasty permitting reforms, especially those aimed at NEPA, risk eliminating public involvement. Without public involvement, it is inevitable that environmental justice and tribal communities will be disadvantaged.

Second, permitting ensures the safety of everything from buildings to airplanes to mines, and sloppy permitting processes lead to accidents. Recently, this was seen during the earthquake in Turkey, when 3,000 buildings, including new construction, collapsed due to a failure to enforce building regulations.²²⁰ It was seen in the Boeing 737 Max scandal, where the permitting process was rushed, and federal regulators lacked capacity to provide meaningful oversight.²²¹ And it was seen in the Mount Polley mine disaster, where a poorly designed tailings dam at a copper and gold mine in Canada broke, sending 24 million cubic meters of mine waste into nearby lakes and rivers.²²² The root cause of this calamity was lax enforcement by the regulating ministry, which did not enforce permitting standards at the design, building, or operational phase.²²³

In summary, permitting is not just red tape, and permit reform should be careful to improve rather than dismantle the valuable government service it provides.

216. DOI, BUDGET JUSTIFICATIONS AND PERFORMANCE INFORMATION: FISCAL YEAR 2024: FISH AND WILDLIFE SERVICE ES-11 to ES-12 (2023), <https://www.fws.gov/sites/default/files/documents/fy2024-fws-greenbook.pdf>-508.pdf; but see Alejandro E. Camacho et al., *Six Priority Recommendations for Improving Conservation Under the ESA*, 51 ELR 10785, 10787 (Sept. 2021), <https://www.elr.info/articles/elr-articles/six-priority-recommendations-improving-conservation-under-esa> (explaining that inconsistent funding has hindered full deployment of the IPaC system in the decade post-rollout); Center for Environmental Excellence by the American Association of State Highway and Transportation Officials, *Research Idea Details*, <https://environment.transportation.org/teri-idea/inefficiencies-of-the-us-fish-and-wildlife-services-ipac-system/> (last visited Dec. 5, 2024) (2012 proposal from state DOT employee urging study of IPaC’s inefficiencies).

217. FWS, *IPaC 101 Presentation (Slides Only)*, YouTube (July 21, 2022), <https://www.youtube.com/watch?v=sm4o8J88n14> (minutes 9:16, 9:37-9:42).

218. DOI, *supra* note 216, at ES-11 to ES-12.

219. *Id.*

220. Jake Horton & William Armstrong, *Turkey Earthquake: Why Did So Many Buildings Collapse?*, BBC (Feb. 9, 2023), <https://www.bbc.com/news/64568826> (describing political practice of granting “construction amnesties,” which were exemptions from building permits that could be obtained for a fee); Ceylan Yeginsu et al., *Earthquake-Proof, Not Corruption Proof: Turkey’s Needless Deaths*, N.Y. TIMES (May 4, 2023), <https://www.nytimes.com/2023/05/04/world/europe/turkey-earthquake-corruption.html> (providing in-depth reporting on the failure to enforce building codes and its contribution to building collapses during the earthquake).

221. MAJORITY STAFF OF THE COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE, FINAL COMMITTEE REPORT: THE DESIGN, DEVELOPMENT & CERTIFICATION OF THE BOEING 737 MAX 57 (2020) (detailing how FAA’s delegation of its permitting authority to Boeing eroded oversight effectiveness and compromised safety); John Cassidy, *How Boeing and the FAA Created the 737 Max Catastrophe*, NEW YORKER (Sept. 17, 2020), <https://www.newyorker.com/news/our-columnists/how-boeing-and-the-faa-created-the-737-max-catastrophe>.

222. CAROL BELLINGER, OFFICE OF THE AUDITOR GENERAL OF BRITISH COLUMBIA, AN AUDIT OF COMPLIANCE AND ENFORCEMENT OF THE MINING SECTOR (2016).

223. *Id.* at 8.