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The Many Sins Of NEPA

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ARTICLE

THE MANY SINS OF NEPA

by: Richard A. Epstein*

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I. INTRODUCTION

The National Environmental Policy Act of 1969 (“NEPA”) took effect on January 1, 1970.¹ In its nearly fifty years of operation, NEPA has become a fixed star of environmental law. NEPA requires the relevant government agency—often with the assistance of an interested private party—to perform an initial environmental assessment (“EA”). Thereafter, if doubts remain about the environmental status of the project, NEPA requires the agency to prepare a more comprehensive environmental impact statement (“EIS”) that may take millions of dollars and many years to perform. This issue has made its way into political debate. In the spring of 2018, the Republican party in the House of Representatives initiated an inquiry with the somewhat aggressive title “Weaponizing the National Environmental Policy

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1. National Environmental Policy Act of 1969 §§ 2 *et seq.*, 42 U.S.C.S. §§ 4321 *et seq.* (2018).

Act.”² I responded by offering the view that the success or failure of NEPA depends not on how NEPA works in the uncontroversial cases that present virtually no risk of environmental harms, but on how the law treats the large projects that are subject to extensive review and litigation, including the pipeline cases discussed in this Article. In light of its past and current performance, NEPA does not deserve its near-exalted status, neither as it was originally conceived nor as it is now applied. This Article seeks to show how the NEPA program is fraught with serious defects which lead, ironically, to an unintended situation that combines higher risks of environmental harm with slower rates of economic development.

This evaluation of NEPA does not ask whether it is appropriate to provide comprehensive protection against various forms of environmental depredation. Of course it is appropriate, and emphatically so. Instead, the real questions here go to the choice of means, not the admitted desirability of ends. In all too many ways, NEPA is highly counterproductive in its mode of implementation. On many key points, NEPA is consciously designed in opposition to the earlier approach to common law rules that integrate private remedies, via damages and injunction, with systems of public enforcement. Unlike these schemes, NEPA allows for any project to be challenged by any person on virtually any ground. Consequently, the strongest opponent exerts the most powerful control over the process, for no longer is the strongest opponent only one voice before the agency. Instead, that opponent becomes the sole voice before that reviewing court.

In addition, NEPA makes a further serious structural error insofar as it insists that in major cases *all* information be gathered and evaluated by the relevant agency before it can take *any* action. The agency could well deal with information by resisting the temptation to pack everything into the initial analysis, for there is no need to rely on imperfect information to resolve the many remote and improbable contingencies that are better fixed when they occur, if at all, down the road. But, the “merely” procedural requirements under NEPA allow courts to enjoin projects long before any sign of trouble arises, even though most projects are likely to move smoothly to their conclusion. These issues are, moreover, especially acute in dealing with the extensive network of permits, both federal and state, required to complete construction of an oil pipeline. Seriously misguided and overbroad techniques of environmental protection are at stake here. These gar-

2. *The Weaponization of the National Environmental Policy Act and the Implications of Environmental Lawfare: Hearing before the Subcomm. on Oversight & Investigations of the H. Comm. on Nat. Res.*, 115th Cong. (2018) (statement of James Coleman, Professor, SMU Dedman School of Law, Horst G. Greczmiel, Former Associate Dir., NEPA Oversight, Council on Env'tl. Quality, Melissa Hamsher, Eclipse Res. Corp., Vice President, Env'tl. Health, Safety, & Regulatory, Dr. Laura Alice Watt, Professor, Sonoma State Univ.).

gantuan early efforts are counterproductive insofar as they ignore the benefits of new projects that will eliminate the far greater environmental risk associated with existing, often dilapidated or inferior, facilities. The lofty and proper ends of NEPA do not excuse its poor mode of execution.

The plea most emphatically is not to end all regulation, but to rationalize its operation. Accordingly, the purpose of this Article is to expose the weak technical underside of NEPA's statutory scheme. This inquiry does not start with NEPA itself, but, by way of comparison, with the earlier network of common law and equitable rules—which for these purposes I shall treat as a single body of judge-made common law—that made far wiser design choices in the structure of the overall legal system. These rules, and their response to uncertainty, are the subject of Section I of this Article. In Section II, this Article evaluates the promise of NEPA as articulated in its original preamble and in the early judicial decisions—most notably *Calvert Cliffs, Inc. v. United States*³—that have aggressively interpreted its reach. Section II also explores the determined insistence of the courts to allow virtually all environmental mandates to be imposed without compensating private property owners for their losses. Nonetheless, these two large new sources of government power have done little to advance the goals of NEPA. NEPA's sweeping demands require painful ad hoc judicial adjustments in choosing remedies to curb the major risk of environmental losses resulting from new project delays that are more environmentally friendly than the grandfathered programs that they are meant to displace. This is because the basic NEPA structure makes it all too easy to ignore the gains from environmental innovation by focusing exclusively on small, often irrelevant, losses from the proposed new projects.

To illustrate this sad position, Part III of this Article recounts two cases in which I prepared extensive commentary for Grow America's Infrastructure Now (“GAIN”)—a group that has supported creating new pipelines and whose first success has been the clearance for operation of the Dakota Access Pipeline (“DAPL”), which has now been uneventfully and successfully operating for the last eleven months.⁴ This Article also discusses the Bayou Bridge Pipeline (“BBP”), which is now being completed after it was initially stopped in March 2018 in a decision by Judge Shelly Dick, which was quickly overturned on an interim appeal before the Fifth Circuit.⁵ Nonetheless, both cases have

3. See *Calvert Cliffs' Coord. Comm., Inc. v. U.S. Atomic Energy Comm'n*, 449 F.2d 1109 (D.C. Cir. 1971).

4. *North Dakota's Pipeline Payoff*, WALL ST. J. (Dec. 29, 2017, 6:55 PM), <https://www.wsj.com/articles/north-dakotas-pipeline-payoff-1514591716> [<https://perma.cc/TY5R-EEL7>] (noting substantial increases in rail traffic, drilling, environmental safety, tax revenues, and energy supplies).

5. See *Atchafalaya Basinkeeper v. U.S. Army Corps of Eng'rs*, 894 F.3d 692 (5th Cir. 2018).

yet to receive their final clearance, even though it is highly unlikely that either will be stopped. As it now stands, both cases face at least one more round of judicial challenge.

II. COPING WITH REMEDIAL UNCERTAINTY: THE COMMON LAW AND NEPA

Congress passed NEPA at the dawn of the environmental movement as part of the vast public appeal of Rachel Carson's *Silent Spring*⁶ and the extensive public outrage that stemmed from the painful inability of both private and government officials to stem the massive oil leaks into Santa Barbara waters in 1969.⁷ Ironically, these oil leaks and Carson's portrayal could not be more disparate.

With respect to Carson, the major consequence—I am reluctant to call it an achievement—of Carson's allegorical portrayal of the silent spring where “no birds sing” was, as Ronald Bailey recounts, the EPA's ban of DDT in 1972.⁸ DDT is a chemical invented by the Swiss scientist Robert Muller in the late 1930s, for which he won the Nobel Prize in 1948, and it is credited with saving millions of lives from such diseases as malaria and typhoid.⁹ The EPA made its decision to ban DDT over the objection of its own administrative judge, who had reasoned that “DDT is not a carcinogenic hazard to man. . . . DDT is not a mutagenic or teratogenic hazard to man. . . . The use of DDT under the regulations involved here [does] not have a deleterious effect on freshwater fish, estuarine organisms, wild birds or other wildlife.”¹⁰ Nonetheless, Carson insisted that DDT caused cancer, particularly in small children. Her critics attack her process of statistical inference as deeply flawed.¹¹ No one denies that chemicals like DDT can have side effects, but there is a vast difference between banning a chemical and controlling the places where it is used, the amounts that are sprayed, and the mode of its application. Using small quantities of DDT to prevent malaria and other scourges is far wiser than other practices, such as the ineffective use of netting, to achieve that same purpose. The tragedy of the environmental movement in cases of this sort is its

6. RACHEL CARSON, *SILENT SPRING* (1962).

7. See, e.g., Ari Philips, *How A Massive Oil Spill In 1969 Changed Everything*, THINK PROGRESS (June 30, 2014, 1:45 PM), <https://thinkprogress.org/how-a-massive-oil-spill-in-1969-changed-everything-c4da7ecd5038/> [<https://perma.cc/Z4VJ-FJT2>].

8. Ronald Bailey, *Silent Spring at 40: Rachel Carson's Classic Is Not Aging Well*, REASON (June 12, 2002), <http://reason.com/archives/2002/06/12/silent-spring-at-40> [<https://perma.cc/4DD5-5X54>] (criticizing her for the attack on DDT).

9. *Id.*

10. Edmund Sweeney, *EPA Hearing Examiner's Recommendations and Findings Concerning DDT Hearings*, 40 CFR § 164.32 (Apr. 25, 1972).

11. For a devastating analysis of all aspects of her science and work, see CATO INST., *SILENT SPRING AT 50: THE FALSE CRISES OF RACHEL CARSON* (Roger Meiners et al., eds., 2012). It is worth noting that of all the deadly diseases, progress against malaria is still the slowest. For the table, see Steven Pinker, *ENLIGHTENMENT NOW: THE CASE FOR REASON, SCIENCE, HUMANISM, AND PROGRESS*, 66 fig.6:1 (2018).

utter lack of any sense of proportionality, which results when regulators and advocates overstate risk, understate benefits, and reject reflexively all proposed accommodations. All the questions of proof turn on inference rather than direct observation. I agree with those who think that banning DDT was one of the great mistakes of the age,¹² but others, chiefly on the left, disagree.¹³

The evidentiary questions are quite different with the Santa Barbara oil spill where direct visual evidence resolved all factual questions. Everyone could understand that spilling huge quantities of raw oil into a picture-perfect environment counts as a classic nuisance of epic proportions, actionable under any conceivable theory of tort law. I know of no skeptic who thinks that pollution—set carbon dioxide aside for the moment—is anything but a bad outcome that both government and private parties should take all efficient measures to prevent.¹⁴ It is one thing, however, to be indignant about harm after the fact, for which heavy fines are often the only workable remedy, and another thing to design a system of anticipatory precautions that achieves the right balance between economic activity and environmental protection. The Santa Barbara oil spill represents a low probability event that strikes with great devastation, if it strikes at all. DDT, by contrast, is a substance capable of constant use that provides a suite of long-term benefits and burdens that cry out for the regulatory controls that allows for its continued use given that its benefits in preventing malaria far outweigh any negative effects. Using DDT around sleeping quarters at night is one such accommodation. More generally, patterns of usage and the distributions of benefits and harms require very different approaches for pesticides and oil drilling, but at a deeper level. However, they face the same basic challenge of dealing with future uncertainties in the affairs of humankind: how to deal with the pluses and minuses of activities that have both real upsides and dangerous downsides.

One of the great initial attractions of NEPA is that it purports to build on the private and public law of nuisance with its long history in dealing with this set of problems—even if the case law under NEPA

12. *Rachel Carson's Dangerous Legacy*, SAFE CHEMICAL POL'Y (Mar. 1, 2007), <http://www.safechemicalpolicy.org/rachel-was-wrong/> [<https://perma.cc/SJR3-CYPJ>].

13. *Rachel Carson's Critics Keep on, but She Told Truth About DDT*, YALE ENV'T 360 (Sept. 10, 2015), https://e360.yale.edu/features/rachel_carsons_critics_keep_on_but_she_told_truth_about_ddt [<https://perma.cc/XR4W-RND6>]; John Bellamy Foster & Brett Clark, *Rachel Carson's Ecological Critique*, MONTHLY REV. (Feb. 1, 2008), <https://monthlyreview.org/2008/02/01/rachel-carsons-ecological-critique/> [<https://perma.cc/AT96-DUGV>].

14. For my systematic account of this topic, see Richard A. Epstein, *Nuisance Law: Corrective Justice and Its Utilitarian Constraints*, 8 J. LEGAL STUD. 49 (1979). The problem here is to explain why nuisances count as actionable externalities. For an effort to show how this can be done rigorously by postulating a single owner with control over all relevant inputs, see Richard A. Epstein, *Positive and Negative Externalities in Real Estate Development*, 102 MINN. L. REV. 1493 (2018).

has moved, to its peril, far beyond its common law origins.¹⁵ As early as 1536, the *Anonymous* case set out the correct relationship between public and private nuisances.¹⁶ Private nuisances are, to use slightly more modern terminology, “nontrespassory invasions,” such as filth, noise, stench, and dangerous chemicals of all sorts, that emanated from one party to another causing discomfort and annoyance to an occupant.¹⁷ A public nuisance involves the same kind of conduct, only now the damage is to public land and waters, where no single individual is in a position to bring suit to protect against the parallel harm to all other individuals. The familiar collective action problem makes it unlikely that any one individual will undertake action to protect all others because he or she must bear the total cost of remedying the situation but suffers only a fraction of the overall harm. The common law response to this difficulty was to draw a distinction between special and general damages. Anyone whose losses were of a magnitude suffered by ordinary individuals in cases for property damage or personal injuries could maintain a private right of action. But for the rest of the population, all private rights of action were put to one side, given their high administrative costs relative to the size of their personal losses. In their place, the state imposed a fine against the wrongdoer and took steps to remove the obstacle or, in the case of pollution in public waters, clean up the overall mess. Full compensation for the individual was sacrificed in order to advance global efficiency from which all parties benefit.

These nuisance cases raise difficult issues in dealing with the timing and integration of damages and injunctive relief. Nuisance law always allows for actual damages after the fact, but it also allows for injunctive relief to be imposed upon the initial occurrence or the imminent risk of actionable harms.¹⁸ The law that governs these private nuisances is more complicated than the law applicable to most bodily injury or property damage cases because it must deal with uncertainty, which in all remedial contexts presents a choice between two kinds of error: moving too quickly or moving too slowly. As both *Silent Spring* and the Santa Barbara oil spill should remind us, the distinctive feature of this body of law is that it must mix and match remedies across a wide number of circumstances. In general, the most sensible approach to this challenge is successive approximations. The initial move is to allow injunctive relief *ex ante* that reduces the likelihood of viola-

15. For the initial and decisive departure, see Calvert Cliffs' Coord. Comm., Inc. v. U.S. Atomic Energy Comm'n, 449 F.2d 1109 (1971); *infra* Section II.A and note 24.

16. *Anonymous*, Y.B. Mich. 27 Hen. 8, f. 27, pl.10 (1536). The approach is embodied in RESTATEMENT (SECOND) OF TORTS, §§ 821B–821E (AM. L. INST. 1979).

17. See, e.g., *Morgan v. High Penn Oil Co.*, 77 S.E. 2d 682 (N.C. 1953).

18. See, e.g., *Michigan v. U.S. Army Corps of Eng'rs*, 758 F.3d 892 (7th Cir. 2014) (denying relief to tribal and public plaintiffs against a possible invasion of the Great Lakes by the voracious Asian carp because the plaintiffs did not plausibly allege a current or imminent public nuisance).

tion. If and when any oil leaks do occur, the initial use of an injunction reduces the stress on calculating damages by first reducing the proper level of damages. However, injunctive relief typically has diminishing marginal returns until the next unit of legal protection from nuisances causes massive dislocations to the parties whose activities are subject to some aggressive form of injunctive relief. The response to this, therefore, is to introduce two additional elements into the picture: (1) allow for damages for measurable residual harms; and (2) allow low-level reciprocal harms to be exempt from all liability under a rule of live-and-let-live, whereby the gains to each person from the increased liberty of action offset the losses from the small incursions on private spaces.¹⁹ Beyond the public law protection, parties can stipulate for additional benefits through the use of covenants, which, given their high costs, are usually imposed as part of a common plan that binds and benefits all persons equally regardless of the time at which the persons acquire their interests.

The overall balance under the earlier common law system worked well by ensuring that serious harms were curtailed in an expeditious fashion without interfering prematurely and unduly by imposing onerous *ex ante* restrictions that cause massive economic dislocation in exchange for little, if any, environmental relief. The key point in this analysis is that the switch from private actions to public enforcement is, or at least should be, driven in theory by one concern: to minimize the transactions costs needed to enforce the substantive entitlements articulated by the correct formulation of the private law.²⁰ Importantly, the standards for measuring damages and issuing injunctions largely carry over from the private law to the public law with only modest changes to account for the added administrative capabilities of public bodies in fine tuning remedies.²¹

This understanding can be usefully applied to the Santa Barbara oil spill. There, the risk of a sudden rupture creates a factual pattern far removed from the usual case of the slow leakage of pollutants into a public waterway. Accordingly, the proper response in cases that could involve catastrophic failure is to demand periodic inspections of facilities already on-line to make sure that the facilities are properly maintained and operated. It is unclear whether these inspections should be done by government, or the facility owner, or most likely both. Additionally, private insurers will routinely impose regular inspection schedules on their insureds to reduce their exposure to liability. Thus, one way for the government to reduce the need for its own independent judgment is to require that certain types of dangerous facilities

19. See *Bamford v. Turnley*, 122 Eng. Rep. 25 [1860] (Bramwell, B.).

20. Richard A. Epstein, *From Common Law to Environmental Protection: How the Modern Environmental Movement Has Lost Its Way*, 23 SUP. CT. ECON. REV. 141, 167 (2015).

21. *Id.*

purchase a high-limit insurance policy against the pollution risk. In this way, an insurer's private monitoring will supplement a firm's required monitoring when its own assets must answer for any external losses, which a sound insurance policy will insist upon, along with deductibles, coinsurance provisions, and indemnity clauses. Even, therefore, in these cases, courts and agencies can deploy a larger arsenal of administrative devices. These insurance requirements are routinely imposed for the construction and operation of all pipelines.

Thus, in those cases where the single test of imminence does not work, the appropriate response is to have continuous inspections of ongoing work to detect, and correct, key risks. These periodic inspections and insurance risks are worlds apart from the current regime, which requires that nothing be built until an exhaustive environmental statement is prepared.²² This statement documents each and every risk, however minute or improbable, and then recommends some institutional adjustments—often expensive—to deal with each and every one of the identified risks.²³ This heavy-handed approach makes it impossible to adopt a sound policy—one that minimizes the importance of deciding when private litigation, like class actions, should yield to public enforcement of the law. The line between public and private nuisances is often challenged, such as when many businesses are dislocated by street repairs, or even in cases where statutory actions caused the externalities.²⁴ It would be intolerable if fine gradations in legal understanding were to radically shift the terms of potential liability, for then parties would have every incentive to arbitrage between systems. Environmental parties may prefer to move into the public space to get more favorable forms of relief or to stay out if the terms are not attractive. Thus, where tort relief is difficult to obtain, environmental groups will challenge various projects under NEPA. However, in the case of public nuisance claims for carbon dioxide, environmental groups, sensing political resistance from the Trump administration, have made a beeline to private rights of action under state law to obtain the most favorable path available.²⁵ Unified

22. See National Environmental Policy Act of 1969 § 102, 42 U.S.C.S. § 4332 (2018).

23. *Id.*

24. *Richards v. Wash. Terminal Co.*, 233 U.S. 546 (1914) (finding special damages for gaseous emissions suffered by a noncontiguous property owner injured by railway operations).

25. For my critique of this position, see Richard A. Epstein, *Is Global Warming a Public Nuisance?*, HOOVER INSTITUTION (Jan. 15, 2018), <https://www.hoover.org/research/global-warming-public-nuisance> [<https://perma.cc/RS8C-QL5C>]. For a related form of arbitrage, where some states claim that global warming will have disastrous effects in their litigation but announce business as usual in dealing with the covenants in their bond offers, see Richard A. Epstein, *Global Warming and Bond Offerings*, FORBES (Jan. 22, 2018, 12:11 PM), <https://www.forbes.com/sites/richardepstein/2018/01/22/global-warming-and-bond-offerings/#67d1b4e423c0> [<https://perma.cc/X69V-AH6F>].

substantive rules are needed to counteract this modern version of forum-shopping.

Indeed, if the common law rules are efficient—as I believe they are—then any effort to ramp up the availability of injunctive relief through the exercise of government permit power will necessarily create many social losses. These losses do not stem solely from the additional cost and delay of implementing new projects. Instead, many of these losses come from two other sources: (1) the implicit decision to keep existing dangerous facilities in operation because of the inability to obtain permits for newer ones; and (2) the interaction of multiple permitting agencies operating in sequence—the federal government and multiple state governments, for example—which means that the denial of a single permit may stop the entire operation. In this regard, compact sites face fewer obstacles than long, skinny sites such as waterways, beachfront developments—or pipelines.

III. THE FALSE PROMISE OF NEPA

A. *The Takings Dimension*

The most notable feature of NEPA is how it shifts the emphasis away from the perceived mundane task of preventing nuisances to the far grander task of making, as is often said, man one with nature in ways that eliminate damage to the environment. The act purports “[t]o declare a national policy which will encourage productive and enjoyable harmony between man and his environment.”²⁶ More concretely, it instructs the government “to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans”²⁷—laudable objectives, all. But this high-falutin’ prose glosses over what is always the key question, namely the choice of means to achieve the stated ends. One key dimension in that inquiry is the stark choice between regulation (without compensation) and condemnation of property rights (with compensation). This issue first gained prominence in dealing with the remedial provisions of NEPA. At its passage, it was generally assumed that all enforcement work would be done by informal deliberation within the agency, where, as noted above, no one voice would be heard more than any other.²⁸ But without any textual authorization, in *Calvert Cliff*, Judge Skelly Wright held, without much argument, that

26. National Environmental Policy Act of 1969 § 2, 42 U.S.C.S. § 4321 (2018).

27. National Environmental Policy Act of 1969 § 101, 42 U.S.C.S. § 4331 (2018).

28. For discussion, see Richard Lazarus, *The National Environmental Policy Act in the U.S. Supreme Court: A Reappraisal and a Peek Behind the Curtains*, 100 GEO. L.J. 1507, 1513–14 (2012).

NEPA created a private right of action by declaring, "These cases are only the beginning of what promises to become a flood of new litigation—litigation seeking judicial assistance in protecting our natural environment."²⁹ NEPA does not itself set out any substantive standards, which are the province of the various substantive statutes. Instead, the remedies under NEPA add the teeth of an injunction, by imposing an ever-higher standard of review to examine the determinations of government officials in applying various substantive statutes, such as the Clean Water Act or the Rivers and Harbor Act.³⁰

Another topic that NEPA does not address is the choice between having the government buy a critical habitat and other resources from a private owner, or letting the government designate that habitat as protected without compensation. However, twenty-five years after its passage, the misguided decision in *Babbitt v. Sweet Home Chapter* finally settled the matter by upending the key architecture of takings law by holding, under the Endangered Species Act, that the government gets a free option to choose between regulation and condemnation to control any activity that it regards as harmful.³¹ NEPA offers no guidance on how any government official should make that choice, but leaves the entire matter up to Congress or, in the event of their silence, to the agencies.

It is always a mistake to give that level of administrative latitude to any public official, for save in rare circumstances they will always prefer to take without payment. That option gives them far greater power than private parties ever obtain over the activities of their neighbors. Private landowners may restrain traditional nuisances as of right but must purchase covenants to restrict other forms of land use. If compensation must come from the state, then government regulators will account for those dislocations and consider whether the benefits of those restrictions outweigh the costs. By treating the two courses of action—designation without compensation and condemnation with compensation—as legal equivalents, Justice Stevens in *Sweet Home* created perverse incentives on both sides.³² Now, government can designate habitat without consequence to its own budgets and, thus, will often overclaim habitat with only scant regard to the losses suffered by their owners. Similarly, private owners subject to habitat preservation ordinances could well decide to destroy endangered species by following a policy of "shoot, shovel, and shut up" to avoid costly regu-

29. *Calvert Cliffs' Coord. Comm., Inc. v. U.S. Atomic Energy Comm'n*, 449 F.2d 1109, 1111 (1971).

30. For a discussion of the evolution, see Lazarus, *supra* note 28, at 1514–18.

31. *Babbitt v. Sweet Home Chapter*, 515 U.S. 68 (1995). For my extended views, Richard A. Epstein, *Babbitt v. Sweet Home Chapters of Oregon: The Law and Economics of Habitat Preservation*, 5 SUP. CT. ECON. REV. 1 (1996).

32. *Id.*

lations.³³ The wildlife, originally thought to be a social benefit, now becomes a private liability. If the government were restricted to the condemnation option instead, the private owner would be now correctly incentivized to treat the habitat as an asset worth preserving in order to get maximum value from the state by condemnation or by private sale to conservation groups. Yet, no single word in NEPA or *Sweet Home* addresses these key incentive issues.

B. *Moving Too Fast or Too Slow—the Perils of Searching for Complete Information*

The situation gets no better in designing remedial measures to deal with the prospective forms of pollution actionable at common law. NEPA's bold declarations all concentrate only on one form of error—letting dangerous materials from new projects into the environment. This one-sided approach is captured in a bold declaration by Richard Lazarus: “NEPA’s simple admonishment that government planners should in effect ‘look before they leap’ has prompted the preparation of approximately 34,000 draft and final EISs and successfully prevented at least hundreds, and likely thousands, of actions from causing unnecessary damage to the nation’s environment.”³⁴ Unfortunately, the other type of error—the risk of moving too slow—is simply ignored.

Thus, NEPA regards injunctions and permits solely as means to preventing new harms from occurring. The problem of allowing new advances to remove or reduce older harms is not mentioned. Instead, there is a very powerful set of judicial sentiments, which were summarized accurately by Judge Boasberg in the Standing Rock Sioux Tribe (“SRST” or the “Tribe”) litigation:

The National Environmental Policy Act, the statute under which the majority of the Tribes’ claims are brought, has two aims: it places upon an agency the obligation to consider every significant aspect of the environmental impact of a proposed action, and it ensures that the agency will inform the public that it has indeed considered environmental concerns in its decisionmaking process. NEPA’s requirements are “procedural,” requiring agencies to imbue their decisionmaking, through the use of certain procedures, with our country’s commitment to environmental salubrity. Importantly, NEPA does not mandate particular consequences, and courts are discouraged from substituting their own policy judgments for that of the agency. NEPA merely prohibits uninformed — rather than unwise — agency action. Agency actions with adverse environmental effects can thus be NEPA compliant where “the agency has consid-

33. Dean Lueck & Jeffrey A. Michael, *Preemptive Habitat Destruction Under the Endangered Species Act*, 46 J.L. & ECON. 27, 29–30 (2003); Ralph R. Reiland, *Shoot, Shovel & Shut Up*, AM. SPECTATOR (Apr. 7, 2004, 4:06 AM), https://spectator.org/50307_shoot-shovel-shut/ [<https://perma.cc/KWK9-YGHA>].

34. Lazarus, *supra* note 28 at 1510.

ered those effects and determined that competing policy values outweigh those costs.³⁵

It is absolutely critical to understand the profound errors in this canonical approach. In the conventional view, the EPA “merely” uses its procedure devices to make sure that the decisions about any project subject to agency review, whether private or public, is made on an “informed basis.” But it is a huge non-sequitur to hold that an informed judgment depends on obtaining full information about a given problem before taking any steps. People must make complex decisions in their private lives, and in doing so they respect the marginalist principle that each additional unit of information should provide greater benefits than the costs of its acquisition. It follows that most people seek—and usually find—an intermediate level of investigation that works best in their particular context.

There are three basic options. One option involves an effort to develop a formal and complete model incorporating every relevant variable that could, in principle, impact a decision. But, the cost in time and energy makes this approach impracticable for any ordinary business or personal decision. At the other end of the intellectual lies a reliance on hunch and intuition not backed by any theoretical insight or experiential data, which could resemble a random guess. Between those two extremes lies what has come to be called “fast and frugal” techniques, in which a few key variables drive the decision to the exclusion of all other relevant factors.³⁶ Roughly speaking, this approach asks the decisionmaker to line up, on the right-hand side of the regression, all the relevant terms in order by the size of their expected coefficients. This approach then concentrates exclusively on the first two or three of these independent variables and ignores the rest to reach a usable decision in any particular case.³⁷ Logically, the weaker terms will tend to cancel each other out, so that using only the major terms gives more reliable information at lower cost than an exhaustive examination of all purportedly relevant features.

This method will occasionally fail, for the same reason that longshots sometimes win horseraces. But, *ex ante*, it is always critical to play the odds. Finding what the relevant parameters are is often a difficult challenge, which is why agencies must complete many trial runs to empirically validate any short-term protocol they use to decide, for example, whether to admit people into the hospital after they present with chest pains at the emergency room.³⁸ The need for speed

35. *Standing Rock Sioux Tribe v. U.S. Army Corps of Eng'rs*, 255 F. Supp. 3d 101, 112–13 (D.D.C. 2017).

36. Gerd Gigerenzer & Daniel G. Goldstein, *Reasoning the Fast and Frugal Way: Models of Bounded Rationality*, 103 PSYCHOL. REV. 650, 669 (1996).

37. *Id.*

38. See Richard A. Epstein, *Intuition, Custom, and Protocol: How to Make Sound Decisions With Limited Knowledge*, 2 N.Y.U.J.L. & LIBERTY 1 (2006), <https://chicago>

is greater in the emergency room than in most environmental settings. But, it hardly follows that a leisurely journey through endless stacks of information comes without cost, given that existing facilities may depreciate rapidly in value. Indeed, the best protocols, when both forms of error are high, usually ask three or four key questions and then produce, for example, a decision to admit a patient—which could needlessly tie up costly equipment—or send him home—which could lead to death. Nonetheless, the standard protocol developed painfully at the Cook County Hospital had fewer errors in both directions than the judgment of experienced medical practitioners—saving both cost and time.³⁹

There is often, then, a *negative* correlation between making an exhaustive inquiry and achieving sound results. This danger is compounded when the words “merely” and “procedural” are given their full weight. Once the EIS is filed in approved form, the agency can decide to approve a project even though there are doubts as to its wisdom. That has to be the case, for otherwise nothing could get done; every complex project necessarily involves some kind of trade-off between expected advantages and detriments. But, never overlook the key issue of timing. Given NEPA, nothing can be done until all the endless layers of review are satisfactorily completed. In effect, the inability to clear the EIS hurdle operates as a *de facto* form of injunctive relief against the completion of a project, even if the fast and frugal case in favor of going forward turns out to be overwhelming. The test of imminent danger is flipped over allowing massive premature intervention based on speculation about low probability events. The system of periodic inspections is nowhere to be found under the NEPA protocols. This creates powerfully destructive incentives. All that an opponent of a project needs to do to initiate the process of derailing the project is to seek judicial review. Then, as there are multiple points of attack for any given project, it could take only one or a very small number of objections to sink a project that passes any sensible cost-benefit case.

C. Remedial Obstacles and Escape Valves

Exhibit one of this folly is a nearly-forgotten 1960s case that anticipated, and perhaps shaped, the form of judicial intervention under NEPA. In *Scenic Hudson Preservation Conference v. Federal Power Commission*, the Second Circuit held that the various townships that composed the Preservation Council counted as an “aggrieved party” entitled to challenge a Federal Power Commission decision to authorize the construction of the huge Storm King electrification project, lo-

unbound.uchicago.edu/cgi/viewcontent.cgi?article=2220&context=journal_articles [https://perma.cc/S8RC-YXXD].

39. *Id.* at 20–21. The use of protocols does not depend on intuition but on the exhaustive study of voluminous data.

cated on the west bank of the Hudson River, to supply power to New York City.⁴⁰ The transformative upshot of that decision was that parties who did not like the decision of an administrative agency could now challenge it in court. Once that challenge is raised, the decision erroneously took the view that the Commission could only discharge its function if “the record on which it bases its determination is complete.”⁴¹

The result in *Scenic Hudson I* was predictable, even inevitable: the court set aside the initial order, with a demand for further proceedings.⁴² At this point, the situation was fraught with peril because the new hearing would face a double challenge. First, the lower court would have to consider all of the factual and legal issues addressed in the original hearing, with the added burden of updating the analysis to incorporate relevant changes in the record, the science, and the law, since that initial application had been filed. In addition, Judge Hays’s original opinion expanded the set of relevant factors by reading “recreational” broadly so that it “encompasses the conservation of natural resources, the maintenance of natural beauty, and the preservation of historic sites,” each of which had to be “properly weighed.”⁴³ Not surprisingly, the rehearing procedure took six years to complete before, in another thorough opinion, the same court concluded that the new studies by the FPC had indeed covered omitted issues including plant siting, transmission lines, effects on fish, choice of alternative sites, and other subordinate matters.⁴⁴

It was yet another case of too little, too late. The costs of delay turned out to be decisive, especially since Commonwealth Edison had no guarantee that the divided vote in *Scenic Hudson II* was the last word on the matter. Indeed, the case reached its final resting point in 1980, fifteen years after the first decision. Consolidated Edison settled the case with Scenic Hudson. Under the deal, Consolidated Edison abandoned its construction plans and made further payments to the groups that began the protest. As to the ultimate merits of the initial siting decision or the collapse of the project, it is hard to judge from a distance. The entire sequence of events counts as a classic example of justice delayed equaling justice denied. The “mere” procedural barriers made it impossible to follow the sensible approach: to allow the construction to start after an initial hearing, subject to oversight and inspection, knowing that further upgrades could both be required and made in the ordinary course of business. These upgrades are routinely done on existing facilities, so there is no institutional imperative to

40. *Scenic Hudson Pres. Conf. v. Fed. Power Comm’n*, 354 F.2d 608 (2d Cir. 1965).

41. *Id.* at 612.

42. *Id.*

43. *Id.* at 614.

44. *Scenic Hudson Pres. Conf. v. Fed. Power Comm’n*, 453 F.2d 463 (2d Cir. 1971).

make that all-or-nothing judgment before any construction work is undertaken at all.

Clearly, there is too much imbalance in any system that makes these epic all-or-nothing decisions on what is *always* incomplete information. Any system that has this absolutist quality requires some modification to let off steam lest the pressure cooker explode. Often times when the initial set of rules imposes unrealistic expectations on the regulated parties, the regulatory response is often to develop a second-tier system of waiver in order to introduce a more reasonable standard.⁴⁵ There are unavoidable difficulties with these processes that infect all such decisions because it is difficult to determine which parties are entitled to receive these waivers, how long they last, what conditions are attached to them, and how any renewal process is to be evaluated. The waivers may also open the possibility of favoritism whereby the political friends of the government administration get better treatment than their rivals.

Just this dilemma arises under the EPA, where the standard rule requires a court to vacate the decision of an administrative body when there is any error involved. Thus, for example, the standard rule is, as Judge Boasberg writes in *Standing Rock Sioux Tribe*, that the reviewing court shall “hold unlawful and set aside agency action, findings, and conclusions that are arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.”⁴⁶

In the D.C. Circuit, vacatur is the “standard remedy” for a NEPA violation.⁴⁷ But, true to form, it is only a “presumption” that vacatur is required until the applicable agency brings itself into compliance.⁴⁸ At this point, the key question is what test governs the exceptions that should be created to the rule. In the D.C. Circuit, the answer is encapsulated in *Allied-Signal v. U.S. Nuclear Regulatory Commission*, which articulates this test: “The decision whether to vacate depends on ‘the seriousness of the order’s deficiencies (and thus the extent of doubt whether the agency chose correctly) and the disruptive consequences of an interim change that may itself be changed.’”⁴⁹ The statutory gloss in many cases consumes the basic vacatur rule by making the relevant test look as though it requires a balance of equities in the case.

45. See Richard A. Epstein, *Government by Waiver*, 7 NAT’L AFF. 39 (2011), <http://www.nationalaffairs.com/publications/detail/government-by-waiver> [<https://perma.cc/EX2Z-B9UZ>].

46. *Standing Rock Sioux Tribe v. U.S. Army Corps of Eng’rs*, 301 F. Supp. 3d 50, 58 (D.D.C. 2018).

47. *Standing Rock Sioux Tribe v. U.S. Army Corps of Eng’rs*, 282 F. Supp. 3d 91, 96 (D.D.C. 2017).

48. *Id.*

49. *Allied-Signal, Inc. v. U.S. Nuclear Reg. Comm’n*, 988 F.2d. 146, 150–51 (D.C. Cir. 1993).

At this point, it is useful to review some of the decisions taken under the *Allied-Signal* approach because they afford a useful contrast to the very different state of affairs that arise in *Standing Rock Sioux Tribe*.⁵⁰ The change in geometric shapes powerfully affects every aspect of the case. Pipelines—like waterways—are long and thin, and are subject to physical and legal vulnerabilities because of that elongated structure. Cut the pipeline in any place, and the oil cannot go from end to end, so supplies stack up at one end with shortages at the other. The legal consequences are the same: if different segments of the pipeline are subject to controls by different jurisdictions, an adverse decision in any single jurisdiction will necessarily block the use of all other segments of the pipeline. Put otherwise, pipelines are subject to multiple vetoes, and thus are only as strong as their weakest link. None of these points are lost on either the pipeline owners, their many federal and state oversight boards and regulators, or of course the many objectors to their construction. In these circumstances, the vacatur remedy could be disastrous because one no-vote could negate the effect of a dozen other approvals. It is key, therefore, to examine the precedents in order to determine whether they offer apt analogies to the case at hand.

Turning first to *Allied-Signal*, its sole question was whether certain costs for “regulatory services” in overseeing nuclear facilities were correctly allocated among the various recipients.⁵¹ The plaintiff’s only requested relief was a recalculation of various monetary shares that would allow some parties to recover a refund, while others would incur additional costs.⁵² There were no operational issues, and no third-party effects from these decisions. Yet, the D.C. Circuit still refused to issue a cessation order under the test set out above.⁵³ The contrast between those modest financial recalculations—which take a few hours of computer time—and the national restructuring of rail, truck, and pipeline operations—which can take months or years—should be apparent. If the injunctive relief was denied in that case, the pipeline case should *a fortiori* receive the same treatment.

Other cases also show a sensible selection of applicable remedies. In *National Parks & Conservation Association v. Babbitt*, the Ninth Circuit held an injunction to be appropriate when the Park Service proposed a substantial increase in the number of large boats taking tourists to Glacier Bay National Park and Preserve.⁵⁴ The harms in that case were not remote or speculative. Indeed, the harms were

50. For the last of these decisions, see *Standing Rock Sioux Tribe v. U.S. Army Corps of Eng’rs*, 255 F. Supp. 3d 101 (D.D.C. 2017); *Standing Rock Sioux Tribe v. U.S. Army Corps of Eng’rs*, 205 F. Supp. 3d 4 (D.D.C. 2016).

51. *Allied-Signal*, 988 F.2d. at 150–51.

52. *Id.* at 151.

53. *Id.*

54. *Nat’l Parks & Conservation Ass’n v. Babbitt*, 241 F.3d 722, 725–26 (9th Cir. 2001).

likely to occur immediately and continuously, for as the government acknowledged, the new plan “would expose the park’s wildlife to increased multiple vessel encounters, noise pollution, air pollution, and an increased risk of vessel collisions and oil spills.”⁵⁵ There was no clear evidence as to how much additional pollution was likely to occur, so the Ninth Circuit concluded simply, and correctly, that “[t]he data were insufficient.”⁵⁶ No sunk costs complicated the judgment, so vacatur was eminently defensible under the circumstances.

Similarly, in *Fund for Animals v. Norton*, the government program called for the immediate killing of some 525 mute swans pursuant to a depredation permit.⁵⁷ The Court rightly ordered a suspension of the program, which had not yet begun, because no one had completed the preliminary study to determine whether killing the swans would have the desired operational effect.⁵⁸ Once again, the harm was perfectly certain, so that a fuller hearing on the justifications for such an irreversible step can be sensibly required. Additionally, there was an obvious urgency in the case, given that these swans had been around for some time. Accordingly, the case is easily distinguishable from any pipeline dispute, where the potential danger lies only in the occurrence of low probability events for which it is possible to take corrective steps even after pipeline construction is completed.

Finally, in *Sierra Club v. Van Antwerp*, the parties disputed the extent of an admitted discharge into a wetland from an extensive new development project.⁵⁹ In the case, it was uncertain whether the leak was attributable to some isolated human error or to some structural defect.⁶⁰ The court stressed that the declarations by many experts that the development would have a significant adverse impact “alone fail to rise to the level of controversy under the EPA” needed to trigger a vacatur.⁶¹ These cases, and others like them, do not suggest that it is only in exceptional cases that the vacatur is ordered. The balance of equities moves in the opposite direction. The question now arises how these various tests should apply to the ongoing Dakota Access Pipeline case.

In dealing with pipelines, context matters. At the outset, it should be apparent that pipeline cases present special challenges to any permitting system. Their long and skinny nature means that multiple agencies must give their approvals for the entire project to take place. These two cases indicate just how arduous the process can become.

55. *Id.* at 725.

56. *Id.* at 737.

57. *Fund for Animals v. Norton*, 281 F. Supp. 2d 209, 213 (D.D.C. 2003).

58. *Id.*

59. *Sierra Club v. Van Antwerp*, 719 F. Supp. 2d 58, 60 (D.D.C. 2010).

60. *Id.*

61. *Id.* at 67–68.

DAPL extends for nearly 1,172 miles and runs through five different states: North Dakota, South Dakota, Nebraska, Iowa, and Illinois—and each of these states has its own elaborate review before their respective state public utility commission to examine both issues of location and leakage.⁶² Indeed, NEPA contains no provisions that address this complex set of interactions is something NEPA did not foresee. Well-advised objectors are thus able to play one set of regulators against the other, by insisting that anyone who undertakes one part of the project necessarily assumes the risk of all delays should the project be blocked elsewhere for any reason. But if that were required, then no project could ever get off the ground in light of the huge losses that follow should one permit be denied. The alternative approach is to reduce systematic uncertainty by cutting back on the rigid standards of the modern EIS to allow projects to begin in a timely fashion, where all regulators are duty-bound to issue their decisions in a reasonable time under clear rules. This coordination was in fact achieved by all the state public utility commissions.⁶³ The federal government however, remained the outlier, mainly because of the hardline positions that it took on both the siting and construction of DAPL on federal land.

On the former issue, it is quite clear that no route will be able to avoid all criticism. The physical constraints are such that once the basic route is determined, there are only limited degrees of freedom to alter its direction. Here, the route chosen by DAPL, and approved by the U.S. Army Corps of Engineers (“Army Corps” or the “Corps”) was intended to achieve several goals, none of which were disputed in the case. The first goal included picking the shortest route, which reduces the total disruption of terrain, the chance of leakage, and the cost of completion.⁶⁴ With DAPL, the alternative longer route went through Bismarck, and Judge Boasberg already concluded that this route was inferior on all relevant grounds.⁶⁵ Second, the route in ques-

62. *Route*, Dakota Access Pipeline Facts, <https://dapipelinefacts.com/route/> [<https://perma.cc/MN94-VSLT>].

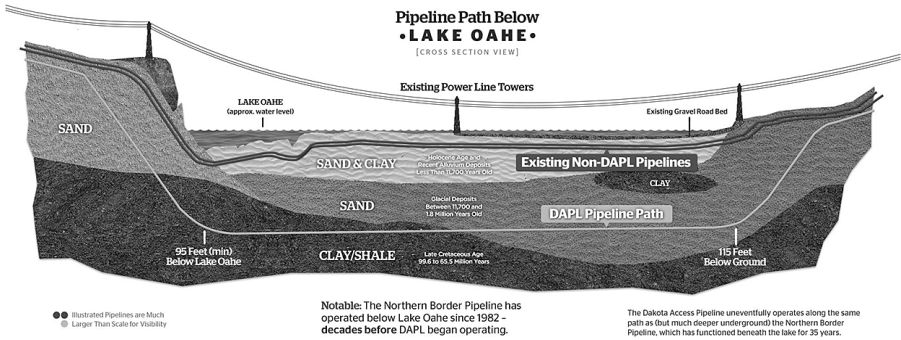
63. *What Approvals Were Needed of the Route for the Dakota Access Pipeline?*, DAKOTA ACCESS PIPELINE FACTS, https://dapipelinefacts.com/dt_articles/what-approvals-were-needed-of-the-route-for-the-dakota-access-pipeline/ [<https://perma.cc/C64S-AMAZ>].

64. Amy Dalrymple, *Pipeline Route Plan First Called for Crossing North of Bismarck*, BISMARCK TRIB. (Aug. 18, 2016), https://bismarcktribune.com/news/state-and-regional/pipeline-route-plan-first-called-for-crossing-north-of-bismarck/article_64d053e4-8a1a-5198-a1dd-498d386c933c.html [<https://perma.cc/2JQ3-PLZT>].

65. *See* Standing Rock Sioux Tribe v. U.S. Army Corps of Eng’rs, 255 F. Supp. 3d 101, 135 (D.D.C. 2017):

That data reveals that the Bismarck alternative would have required an additional 11 miles of pipeline, “consisting of roughly 165 additional acres of impact,” 11 more floodplain crossings, 1 more powerline crossing, and 27 more transportation crossings. In addition, it would have “crossed through or in close proximity to several wellhead source water protection areas” and “crossed other populated PHMSA high consequence areas”—*i.e.*, “locales

tion was picked to track existing facilities to further reduce any dislocations to still virgin terrain.⁶⁶ In this instance, the plan in question sent the pipeline through government lands at a location about one-half mile away from the SRST tribal lands, through which multiple earlier pipelines had run.⁶⁷ In addition, the DAPL pipeline was of more modern design and was located between 95–115 feet below grade—far deeper than the earlier pipelines.⁶⁸ At that distance, it was close to 100 feet below Lake Oahe—a shallow man-made lake that had been created by the Army Corps in 1958 to which the SRST now attaches deep religious significance.⁶⁹ But, it would take a spill of genuinely catastrophic proportions to cause any damage anywhere in the system. This topic was addressed in the documents that DAPL presented for the Environmental Assessment.⁷⁰ This diagram shows the differences.⁷¹



The story is the same on the construction side. Pipeline safety, both in construction and in operation, has improved greatly in the past generation, so the new pipeline is safer than the older pipeline that is

where a release from a pipeline could have the most significant adverse consequences”—“not present on the [selected] route.” The North Dakota Public Service Commission, moreover, requires a 500-foot residential buffer, which would have “severely constrained” the Bismarck route. (Internal citations omitted.)

66. Catherine Thorbecke, *Why a Previously Proposed Route for the Dakota Access Pipeline Was Rejected*, ABC NEWS (Nov. 3, 2016, 4:19 PM), <https://abcnews.go.com/US/previously-proposed-route-dakota-access-pipeline-rejected/story?id=432744356> [<https://perma.cc/L8MG-3MD2>].

67. *Standing Rock Sioux Tribe*, 255 F. Supp. 3d at 114.

68. *Are There Any Other Pipelines Under Lake Oahe?*, DAKOTA ACCESS PIPELINE FACTS, https://dap1pipelinefacts.com/dt_articles/pipelines-lake-oahe/ [<https://perma.cc/N4K3-3P36>].

69. *Standing Rock Sioux Tribe*, 255 F. Supp. 3d at 114.

70. *Environmental Assessment: Dakota Access Pipeline Project*, U.S. ARMY CORPS OF ENGINEERS, <https://usace.contentdm.oclc.org/digital/collection/p16021coll7/id/2427/> [<https://perma.cc/T44A-W5EZ>] (last visited Sept. 5, 2018).

71. *The Dakota Access Pipeline Is the Best Way to Move Bakken Crude Oil to Market*, DAKOTA ACCESS PIPELINE FACTS, <https://dap1pipelinefacts.com/> [<https://perma.cc/4WT8-ZTW3>] (last visited Aug. 13, 2018).

already in location. The American Petroleum Institute summarized its position as follows: “A comparison of three-year spill averages for the periods 1999–2001 and 2009–2011 shows a 60% decrease in the number of spills per 1,000 miles of pipeline and a 43% decrease in the volume spilled per 1,000 miles of pipeline.”⁷² The newer pipelines should show lower levels of risk than pipelines completed at least seven years before. In this case, moreover, the construction of a pipeline presents far greater risk than its operation because it involves exposed materials and heavy equipment. Once the pipeline is constructed, the safest course is to put it into ordinary operation. Indeed, letting any facility sit unused is itself the source of additional risk, for pipelines can deteriorate in much the same fashion as unoccupied homes. Newer pipelines have far superior multiple monitoring and safety checks than earlier ones, which reduces the need to use trains and trucks in shipping crude oil. DAPL thus allows greater quantities of crude oil to be shipped in greater safety.⁷³

However, the situation is quite different under NEPA, which layers on additional requirements that work at cross purposes with any sensible form of risk assessment. Thus, in his last decision on the issue to date, Judge Boasberg took the position that it was a close call on whether he should grant the SRST their requested order to stop operation of the pipeline, which had been completed before his decision of June 14, 2017. He stated his concerns as follows:

[T]he Corps’ decision on July 25, 2016, and February 3, 2017, not to issue an EIS largely complied with NEPA. Yet there are substantial exceptions: the agency failed to adequately consider the impacts of an oil spill on Standing Rock’s fishing and hunting rights and on environmental justice, and in February 2017, it did not sufficiently weigh the degree to which the project’s effects are likely to be highly controversial in light of critiques of its scientific methods and data.⁷⁴

He then conducted a remedial valuation and concluded by letting the pipeline continue in operation until further studies could be completed by the Army Corps. It is useful to look at each of these supposed sticking points.

1. Fishing and Hunting Rights

On the question of fishing and hunting rights, Judge Boasberg invokes the trope of complete disclosure to insist that the Corps must “disclose and assess the suite of risks from the Lake Oahe crossing

72. *Improving Pipeline Safety*, ENERGY API, <http://www.api.org/oil-and-natural-gas/wells-to-consumer/transporting-oil-natural-gas/pipeline/improving-liquid-pipeline-safety> [<https://perma.cc/Z8HC-K9YQ>] (last visited Aug. 13, 2018).

73. *Safety*, DAKOTA ACCESS PIPELINE FACTS, <https://daplpipelinefacts.com/safety/> [<https://perma.cc/TF9B-7YZD>].

74. *Standing Rock Sioux Tribe*, 255 F. Supp. 3d at 147.

and the effect on the full range of the Tribe's Treaty rights, in the context of the Corps' heightened trust responsibilities."⁷⁵ However, this comes with the caveat that the Tribe cannot veto this pipeline on the grounds that its mere existence "could affect its members in the broad and existential ways it details."⁷⁶ The first question is why this issue has any salience whatsoever. The eight existing pipelines in the region pose greater threats to the fishing and hunting rights. But, "greater" in this instance means virtually no dangers at all; a result that is confirmed by the simple observation that the operation of these existing pipelines over many years has not yet resulted in any such harm. It should follow that any safer pipeline, located deeper underground, should have the same result. It is therefore a complete mystery as to why an independent evaluation of this matter is required: the finding of general overall safety necessarily includes safety on this matter.

This is yet another instance where the failure to put new facilities into context skews the required cost-benefit analysis under NEPA. Nonetheless, Judge Boasberg missed that obvious inference when he wrote that the Corps had "adequately discussed the impacts of such a low risk/high consequence event on water—but not on hunting or aquatic—resources."⁷⁷ However, that statement ignores the high correlation between the two, for it is not easy to imagine any scenario that could hurt animals and fish without polluting the water on which their lives depend. It is not credible to assume, as SRST postulates, that a slow leak from that pipeline would go unnoticed until massive amounts of crude oil bubbled to the surface of the water some ninety or more feet above the pipeline. The SRST did not point to a single instance of a leak or spill from preexisting pipelines, all of which are less well-constructed and less well-situated than DAPL. A cost-benefit analysis should be able to draw inferences from undisputed data based on years of accumulated practice. The application process should not have to start afresh each and every time some new project is contemplated. Both the probability and severity of *any* environmental harm are so well established that it is pointless to demand a separate exercise for the subset of fishing and hunting rights.

2. Environmental Justice

The next concern involved the principles of environmental justice that Executive Order 12898, signed by then-President Bill Clinton in February 1994, brought into the approval process.⁷⁸ The gist of that order was to ensure that the EPA was committed to "mak[ing] achieving environmental justice part of its mission by identifying and ad-

75. *Id.* at 130.

76. *Id.* at 131.

77. *Id.* at 133.

78. Exec. Order No. 12,898, 59 Fed. Reg. 32 (Feb. 11, 1994).

dressings, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States.”⁷⁹ That order applies with full force to all indigenous people, including SRST. Under the order, “[t]he EPA defines ‘environmental justice,’ as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.”⁸⁰

This provision ensures that dangerous facilities such as garbage dumps and waste disposal sites are not located near minority or poor communities, who are no less entitled than others to protection against offensive pollution from landfills, industrial plants, or truck depots. But, the basic structure of DAPL obviates the concern. All affected groups are protected by the engineering imperatives for sound pipeline design. The pipeline must be of uniform quality for its entire 1,172 mile length so that the precautions taken for its design and construction near minority or religious communities are the same as those everywhere else along its entire length. Indeed, the construction challenges in this instance were far greater under the Missouri River than under Lake Oahe. Pipelines wind their way through many different terrains, and pipeline operators suffer huge losses no matter where a leak or spill takes place. The uniform safety and soundness standards at all locations give poor and minority neighbors the same protection as private property owned by rich or white persons. Accordingly, there is no need for any special study on these environmental studies here.

In this context, any protests on grounds of environmental justice should be a nonstarter. Nonetheless, Judge Boasberg took the argument in a wholly indefensible direction when he criticized the Corps for using the wrong reference base by underestimating the percentage of poor people and minorities in the region around Lake Oahe.⁸¹ He quarreled with the Army Corps’ decision to use its standard area measure of 0.5 miles, when the boundary of the reservation is only eighty yards further away.⁸² But, his approach wholly ignores the correct form of marginal analysis. If we know that the probability of any pollution reaching the 0.5-mile limit is miniscule, the probability is necessarily smaller of the pollution reaching further. In essence, his call for

79. 59 Fed. Reg. 32.

80. ENVTL. PROT. AGENCY, POLICY ON ENVIRONMENTAL JUSTICE FOR WORKING WITH FEDERALLY RECOGNIZED TRIBES AND INDIGENOUS PEOPLE 1–2 (2014), <https://www.epa.gov/sites/production/files/2015-02/documents/ej-indigenous-policy.pdf> [<https://perma.cc/YG33-T2L6>].

81. *Standing Rock Sioux Tribe*, 255 F. Supp. 3d at 138.

82. *Id.* at 137.

a further examination is an exercise in misplaced caution—there is no need to consider an infinitesimal risk of an infinitesimal loss.

Indeed, the situation is worse because of what was *omitted* from this NEPA analysis. The analysis does not contain a single word that speaks to the serious risks of damage from wayward trucks and derailed trains, which dwarf the picayune issues that attracted Judge Boasberg’s scrutiny. Thus, environmental groups have been rightly insistent that there are strong reasons to ban oil trains immediately—in light of such catastrophes as the Megantic oil wreck of July 6, 2013, which released tens of thousands of gallons of Bakken crude oil close to a school and city center.⁸³ Consequently, this tragedy should encourage new pipeline construction that would allow the other modes of surface transportation to be put out of business.

3. Controversial Findings

Judge Boasberg’s last query asked whether the project was likely “to be highly controversial in light of critiques of its scientific methods and data.”⁸⁴ He made this announcement in February 2017, after the occurrence of two highly dubious actions of the Obama administration. The first was the joint decision of the Departments of Justice, the Army, and the Interior *not* to enforce the victory obtained under Judge Boasberg’s September 9, 2016 decision. The decision rejected multiple challenges that the SRST had raised against the application, most notably under the National Historic Preservation Act of 1966, which set out an elaborative consultative process that federal officials had to comply with before issuing a permit.⁸⁵ As Judge Boasberg detailed in his opinion, the SRST was wholly uncooperative in that process and rebuffed repeated efforts by the Corp and DAPL representatives to discuss those issues. In light of Judge Boasberg’s exhaustive findings, the actions of the Obama administration were inexplicable. Yet, the swift nature of the response—about an hour after the decision came down—makes it clear that the three branches of Obama administration—Department of Justice, The Department of the Interior, and the Army Corps of Engineers—made their collective decision to ask for a “voluntary” cessation of construction activities in anticipation that Judge Boasberg would rule in favor of the government.

The second notable action was the decision of the Department of the Army to override the recommendation of the Army Corps, by or-

83. Todd Paglia, *Top Five Reasons to Ban Oil Trains Immediately*, HUFFINGTON POST (June 30, 2017), https://www.huffingtonpost.com/todd-paglia/top-5-reasons-to-ban-oil_b_10738926.html [<https://perma.cc/C6KR-VW2Y>].

84. *Standing Rock Sioux Tribe*, 255 F. Supp. 3d at 147.

85. National Historic Preservation Act, 80 Stat. 915, 16 U.S.C. §§ 470 *et seq.* (repealed 2014).

dering a full EIS on December 4, 2016.⁸⁶ That decision was a conscious repudiation of the work of the Army Corps, which had prepared papers recommending to Congress—whose final approval was needed—that the last segment of the pipeline should be built over public lands and that the pipeline be allowed to build its last segment over public lands. The Army Corps' short memorandum only rehashed early objections to the pipeline by dealing with such matters as an alternative route, which had already been thoroughly vetted. It defies common sense that these documents, coupled with the expert testimony submitted on the part of the SRST, could force a full EIS at that late date by allowing the intense objection of government officials and private parties to count as an independent reason to block a project, wholly apart from articulation of sufficient reasons to override all earlier decisions.

Moreover, those aggressive actions have not been fully purged by the Trump Presidential Memorandum of January 24, 2017, which overrode the Department of the Army decision of December 2, 2016.⁸⁷ The Department of Army has been asked to supply further documentation of its position by April 4, 2018—a deadline that it missed with no new filing as of September 2018.⁸⁸ Delay or not, with each passing day it becomes ever clearer that there is no reason to shut down the pipeline even if some unforeseen contingency might conceivably require alteration in some of the rules governing its operation. The pipeline has been in operation for close to one year, yet none of the hypothetical harms have come to pass. In addition, at this point, the level of dislocations have surely increased. The operation of the pipeline has encouraged the development of long term contracts at every stage of the production and transmission cycles. These secure means of transportation increase the willingness to drill by lowering the cost of shipping crude oil to market. Similarly, at the other end of the distribution system, the secure sources of supply allow for expansion of economic development. In the middle, the steady flow of crude oil

86. The government link to that decision has been removed. See Richard A. Epstein, *Lawless Bureaucratic Obstruction Is No Substitute for the Rule of Law in the Dakota Access Decision*, FORBES (Dec. 9, 2017, 4:47 PM), <https://www.forbes.com/sites/richardepstein/2016/12/09/lawless-bureaucratic-obstruction-is-no-substitute-for-the-rule-of-law-in-the-dakota-access-decision/#1dc0ee7f1b9d> [<https://perma.cc/YU8N-G4F9>].

87. See Richard A. Epstein, *Trump's Big Move on Dakota Access Pipeline*, FORBES (Jan. 26, 2017, 2:24 PM), <https://www.forbes.com/sites/richardepstein/2017/01/26/trumps-big-move-on-dakota-access-pipeline/#683cb7854c7b> [<https://perma.cc/CJ78-DQEH>].

88. See Albert Bender, *Oil Keeps Flowing as Corps Misses Deadline for DAPL Environmental Study*, PEOPLE'S WORLD (Apr. 4, 2018), <https://www.peoplesworld.org/article/oil-keeps-flowing-as-corps-misses-deadline-for-dapl-environmental-study/> [<https://perma.cc/FBN2-Y7G8>], concluding that “oil continues to flow, money continues to be made hand over fist by the corporate magnates of big oil, and the genocide continues to rake in casualties.”

provides revenues to operate and inspect the facilities. The disruptions from stopping these activities are profound because it is no longer possible to rewind the clock, for the many small firms in operation at an earlier date can no longer resume their previous functions now that they have either closed up shop or switched their business operations. These new pipelines are of course insured, and the risk of danger decreases with operation. It would take a heroic set of assumptions to think that shut-down at this stage could be warranted, which is why the market has largely disregarded that assumption. And yet, what is to be said for a reading of NEPA that adds immense cost and uncertainty to a project when a back-of-the-envelope cost-benefit analysis supplies all the needed information for a decision to proceed with construction at the earliest possible time?

Similarly, the dispute over the BBP illustrates the same tendencies. At an estimated cost of \$750 million, this 24-inch pipeline runs 163 miles from Nederland, Texas, to Lake Charles and St. James, Louisiana.⁸⁹ Both are major oil transport hubs.⁹⁰ The pipeline is built to carry some 480,000 barrels per day through wetlands, agricultural lands, and other sensitive areas. It is buried at least three feet underground across its entire route. Major efforts were taken to reduce the footprint of the project, which had to be wide enough to permit its inspection, repair, and maintenance. The most intrusive stage of the process was its construction, given the need on site for open trenches and heavy equipment. The design plan called for a rehabilitation of affected lands, especially in the Atchafalaya Basin (“Basin”), a sensitive site which is home to many fish, plants and other forms of life. The basic plan also included the acquisition of additional needed wetlands to replace the several hundred acres—amounting to less than 0.02% of the total 900,000 acres in the Basin—affected. The company assumed full responsibility for leaks, acquired insurance for the project, and tested the pipeline to show that it was possible to contain damage even in the event of a catastrophic event—most likely from sabotage.⁹¹

After an exhaustive trial, District Court Judge Shelly Dick halted construction work on the BBP because the key plaintiffs in the case, including the Atchafalaya Basinkeeper and the Sierra Club, showed that the EA for the pipeline prepared by the Army Corps had not, under NEPA regulations, met all permitting requirements in connec-

89. *Fact Sheet*, BAYOU BRIDGE PIPELINE (Mar. 2018), <https://bayoubridge.com/wp-content/uploads/2018/03/Bayou-Bridge-fact-sheet-3-12-18.pdf> [<https://perma.cc/QJG3-SHZ4>].

90. For a succinct description of these facts, see *Louisiana Supports the Bayou Bridge Project: Media Statements*, BAYOU BRIDGE FACTS, [https://bayoubridge.com/\[https://perma.cc/XC3A-SE9X\]](https://bayoubridge.com/[https://perma.cc/XC3A-SE9X]).

91. The site offered an award of \$10,000 for information leading to an arrest for vandalism on the site on March 24 and March 25, 2018, shortly after the approval process was completed.

tion with the Clean Water Act and the River and Harbors Act.⁹² The gaps in that record meant that the Corps had acted “arbitrarily and capriciously” by making its Finding of No Significant Impact. Her decision overriding the Army Corps meant that an EIS was necessary to address steps for mitigating environmental losses and determining the cumulative impact of the BBP project in relation to other infrastructure projects in the Basin. Echoing a familiar refrain, Judge Dick concluded that “NEPA ‘is a procedural statute that demands that the decision to go forward with a federal project which significantly affects the environment be an environmentally conscious one.’”⁹³ Tellingly, this formulation does not impose any similar procedural requirement for the maintenance of the status quo ante, which allowed the court to ignore any analysis regarding the continuing dangers of the current state of affairs.

At this point, her opinion first feints in favor of deference and then moves sharply in favor of heavy oversight. At the outset, she states that an injunction should be issued only in “extraordinary” circumstances that present a “substantial threat of irreparable injury.”⁹⁴ Nonetheless, Judge Dick found that there was indeed a certainty of irreparable harm given that the construction of the pipeline necessarily took about 142 acres—of a total of close to 900,000 acres—from permanent circulation and another 300 acres temporarily out of place.⁹⁵ In addition, the Corps performed worst case studies that assumed a “guillotine cut”—or complete severance of the pipe—and noted that its control mechanisms were still effective.⁹⁶ If the package is looked at as a whole, the care and attention the Corps gave to its overall assessment satisfies any good faith standard of judgment so that it could never be rejected as “arbitrary and capricious,” under Section 706 of the Administrative Procedure Act (“APA”).⁹⁷

In the next breath, however, Judge Dick switched to a “hard look” standard of arbitrary and capricious that imposes a strict standard of scrutiny under which each factor is looked at in isolation so that any defect in the Corps’ analysis is fatal regardless of where or when it arises.⁹⁸ So even if the chances of any major leak are tiny, as Judge

92. *Atchafalaya Basinkeeper v. U.S. Army Corps of Eng’rs*, 310 F. Supp. 3d 707, 740–41 (M.D. La. 2018), *overruled by* 894 F.3d 692 (5th Cir. 2018).

93. *Id.* at 715.

94. The full test reads:

A plaintiff seeking a preliminary injunction must establish (1) a substantial likelihood of success on the merits; (2) a substantial threat of irreparable injury if the injunction is not granted; (3) that their substantial injury outweighs the threatened harm to the party whom they seek to enjoin; and (4) that granting the preliminary injunction will not disserve the public interest.

Id. at 717–18.

95. *Id.* at 734.

96. *Id.* at 725.

97. *Id.* at 725–27.

98. *See id.* at 715.

Dick concluded, why vacate the entire proceedings because it did not identify the proper mitigation strategy from the permanent loss of 140-plus acres? The Corps had settled on acquiring additional wetlands to offset these losses, and while that number could be varied up or down at any time, the failure to consider other mitigation devices was a fatal omission to Judge Dick and justified a preliminary injunction.⁹⁹ Any interaction between this and other pipelines is minimal at best. So why stop the entire process to deal with a myriad of remote possibilities before better information is acquired down the road?¹⁰⁰

If *any* wetland loss counts as irreparable harm, the whole analysis could be concluded in one sentence: no pipeline may be built in a wetland, ever. This point was not lost on the Court of Appeals for the Fifth Circuit, which quickly issued an order that lifted the preliminary injunction imposed by Judge Dick.¹⁰¹ At no point in her lengthy decision did Judge Dick consider whether the vacatur remedy was inappropriate under *Allied Signal*. But clearly any sensible sequencing of the relevant risks suggests that it is far more dangerous to leave a pipeline exposed to the elements than to finish the job.

IV. CONCLUSION

Reading decisions like those involving the DAPL and BBP gives rise to this question: what was the motivation behind these two environmental challenges? The simple answer is that it is not a narrow focus on the operational safety of the pipelines. The larger mission in both cases was to prevent constructing and operating any new pipeline in order to achieve some collateral end. It is worth noting that both cases have one theme in common: the highly skilled lawyers of Earthjustice.org led the charge. The organization's agenda is to stop or at least sharply reduce the use of fossil fuels as a source of energy. It is also likely that the SRST wanted to block the construction of the pipeline in order to renegotiate its larger treaty and business relationships with the United States and the several states. These may or may not be laudable ends, but as a matter of first principle, the technical issues arising under NEPA, the APA, and other environmental statutes should not be turned toward these collateral ends that belong in the political process.

Nonetheless, that is exactly what the judicial and administrative transformation has sought to accomplish. NEPA was passed with the intention of avoiding the catastrophic consequences that could come from either Rachel Carson's *Silent Spring* or Santa Barbara's botched drilling operations. In both cases, the risks are real, but so are the

99. *Id.* at 739.

100. *Id.* at 735.

101. *Atchafalaya Basinkeeper v. U.S. Army Corps of Eng'rs*, 715 Fed. Appx. 399, 400 (5th Cir. 2018).

perils of selecting the wrong institutional arrangement to deal with them. This is evidenced by how NEPA's mission then quickly miscarried. The mistake with NEPA was assuming that the earlier common law rules that concentrated on preventing pollution too often moved too late, but the reality is that early legal barricades put into place as a part of NEPA caused innovation to move too slowly. The implicit assumption was that the "status quo" is safer than a brave new world that has yet to be put into place. However, the status quo ante often spawns far greater environmental risk than the new improvements that could replace them. It is frequently easier to build modern facilities than it is to update old and creaky ones. NEPA's fetish for complete information often leads to searching every nook and cranny for potential risks and perils, while ignoring risks from the status quo that were far greater.

These problems only become greater when distributing power over any given project falls into the hands of multiple jurisdictions, and each one could block the entire enterprise. Pipelines are the chief casualty of this approach. Today, pipelines are cheaper to build and safer to operate than ever before. They can displace trucks and trains, which are far more dangerous. The effort to stop pipeline development is often less concerned with the safety of these commercial operations and more concerned with blocking the use of fossil fuels for reasons that are wholly unrelated to the safety and efficiency of fossil fuel transportation. These issues are well worth addressing, but covert tools remain bad tools. The problems with fossil fuels should be faced explicitly, and in an environment where the shortfalls of other forms of energy are subjected to a fair and dispassionate analysis. Even NEPA does not allow these issues to creep in through the back door. The statute should be revised to eliminate its objectionable bias in favor of the status quo. The payoff would be more rapid economic development and safer transmissions with DAPL and other pipelines.