2023

# Rotting Under the Bridge - How False Data is Polluting Administrative Rulemaking

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*In response to legislative gridlock, Presidents have increasingly relied on policy made by administrative action, leading to major swings occurring when the political party of the presidency changes. These policy disputes have spilled into the third branch with a concomitant increase in legal challenges seeking judicial review of such actions. At the same time, since the 1980s, both Republican and Democratic administrations have made cost-benefit analysis the currency of federal rulemaking in the executive branch.*

*The combination of cost-benefit analysis requirements and increased litigation over rulemaking has increased the importance of economic and scientific justifications in both the original promulgation and any subsequent revision of administrative actions. False or misleading data in regulatory analysis, when unchecked, pollutes the regulatory process—and administrative decisions that rely on flawed data should be struck down as arbitrary and capricious.*

*Despite their importance to the administrative process, the actual economic and scientific analyses that underlie cost-benefit studies are often not at the front and center of regulatory action or of legal challenges. To more transparently understand the legality of administrative actions and thus to push for better regulatory actions, these underlying data should be better presented in agency actions.*

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*Though attorneys may not believe themselves well versed in the minutiae of such studies, underlying economic and scientific data should be analyzed closely in any legal rulemaking challenges.*

*In this Article, we use the economic analyses accompanying the Trump administration's National Waters Protection Rule rulemaking under the Clean Water Act as a case study to demonstrate the importance of such data and administrative actions, and as a vehicle to discuss approaches to accommodate this procedural need moving forward.*

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## I. INTRODUCTION

Executive agencies are central to how law affects our society and its citizens. When those agencies make decisions, legal challenges follow "as the night the day."[1] Whether or not these challenges are successful, changing presidential administrations are likely to continue to repeal and replace rules enshrining policy not to their liking. But the typical challenge to administrative actions, particularly rulemakings, only involves an examination of the text of the rulemaking itself, with occasional reference to how the agency has responded to comments and sometimes a look at underlying data—that is, if it can be accessed at all. But this is only a superficial look at the design and promulgation of a rule. Agencies must often produce regulatory impact analyses—documents that provide transparency intended as a bridge to connect an agency's decision-making objectives and its final decision. False or misleading data underlying those analyses may pollute the regulatory process in a way that is not visible on the surface. Taking a close look at the data agencies use in regulatory impact analysis—getting "under the hood," so to speak—is an important process for understanding and supporting or challenging agency action. Therefore, we need a better process to give us that look.

Statutes and administrative policies have made cost-benefit analysis preeminent in justifying the rationality of rules, at both the initial proposal and revision stages.[2] Legal challenges to agency action under the Administrative Procedure Act (APA) frequently turn on the rationality or reasonableness of the action given the administrative record and the weight of the information before the agency; thus, the economic and scientific underpinnings of such administrative actions are ever more important.[3] As the Supreme Court moves to restrict agencies' flexibility in interpreting statutory language and implementing their congressional mandates, the rulemaking process and information supporting that process may carry even more weight in legal disputes.[4] Yet economic and scientific data—and the assumptions underlying that data—are often buried in

1. WILLIAM SHAKESPEARE, HAMLET act 1, sc. 3, l. 85.

2. *See infra* Part II(B) (recounting the history of cost-benefit analysis in presidential administrations since the 1970s).

3. *See, e.g.*, Motor Vehicle Mfrs. Ass'n v. State Farm, 463 U.S. 29 (1983) (laying out the standard formulation of the APA's "arbitrary and capricious" test from 5 U.S.C. § 706).

4. *See* W. Va. v. EPA, 142 S. Ct. 2587 (2022) (emphasizing the major questions doctrine, which limits administrative flexibility in statutory interpretation).

the agency process and are thus often ignored or glossed over in the high-profile legal challenges to major rules.

This Article shines a light on this critical deficiency by examining the role that economic and scientific analysis played in the important National Waters Protection Rule (NWPR) promulgated under the Trump administration.[5] Despite the high-intensity political jockeying over the scope of the Clean Water Act (CWA), which has been ongoing for the fifty years since its passage,[6] the economic analyses that provided the basis for the agency's policy change (and the assumptions behind those analyses) were not featured in the rulemaking text itself. Thus, the original legal challenges to the Trump EPA rulemaking did not directly focus on the flaws in the economic analyses accompanying the repeal of the prior (Obama-era) rule and its replacement with the NWPR. But, as shown by analysis conducted by the External Environmental Economics Advisory Council, these analyses had significant deficiencies which called into question the rulemaking's legality.[7] The information brought to light by the study may yet provide the policy rationale for a new "waters of the United States" (WOTUS) rule; but more importantly, it shines a critical light on just how important these analyses are across the administrative landscape.[8] This demonstrated importance then demands a new way to make this information better available.

In four years, the Trump administration made rolling back environmental and health regulations its priority,[9] focusing heavily on

5. USACE & EPA Navigable Waters Protection Rule, 85 Fed. Reg. 22250 (Apr. 21, 2020) (to be codified at 33 C.F.R. pt. 328 and 40 C.F.R. pts. 110, 112, 116, 117, 120, 122, 230, 232, 300, 302, 401). The rule was vacated by an Arizona district court in August 2021 after the Biden administration requested voluntary remand to reconsider the agencies' position. *See* Pascua Yaqui Tribe v. EPA, 557 F. Supp. 3d 949 (D. Ariz. 2021).

6. The dispute in the NWPR dates to the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. § 1251, which is commonly referred to as the "Clean Water Act." The 1972 statute defined the term "navigable waters," relevant to the scope of the federal government's jurisdiction under the Act, as "the waters of the United States, including the territorial seas," 33 U.S.C. § 1362(7), and subsequent administrative action and litigation in the past half century has addressed the meaning of that phrase. *See infra* Part III(A).

7. See *infra* Part II.

8. In January 2022, the Supreme Court granted review of a case which examines the Congressional intent for Clean Water Act jurisdiction. Sackett v. EPA, cert granted, No. 21-454 (Jan. 24, 2022), https://www.supremecourt.gov/orders/courtorders/012422zor_m6io.pdf [https://perma.cc/6FR4-NSAB]. What the court rules in the *Sackett* case might counter some regulatory flexibility in this particular situation, but the lessons from the rulemaking are still relevant.

9. For a list of regulatory actions in this field, *see* Harvard Env't & Energy L. Program, *Regulatory Rollback Tracker*, https://eelp.law.harvard.edu/regulatory-rollback-tracker/ [https://perma.cc/7LQQ-3YHW] (last visited Mar. 25, 2021).

the costs of these regulations while minimizing their benefits. Within the Environmental Protection Agency (EPA), three major rollback actions stand out as particularly consequential. First, providing the linchpin example for this Article, EPA redefined the scope of the "waters of the United States" that are protected under the CWA, placing the majority of the nation's wetlands outside the jurisdiction of the U.S. Army Corps of Engineers (Army Corps) and EPA's permitting process and leaving them vulnerable to degradation and pollution.[10] Second, EPA replaced the Obama-era Clean Power Plan—regulation of the greenhouse gas (GHG) emissions from coal- and natural gas-fired power plants—with a far less ambitious rule, referred to as the Affordable Clean Energy (ACE) rule.[11] Third, EPA and the National Highway Traffic Safety Administration (NHTSA) revised and weakened the standards for GHG emissions and fuel efficiency in new motor vehicles through the so-called "SAFE" Rule.[12] In the case of the motor vehicles rule, new cost-benefit analyses provided the primary rationale for the change in policy; for the others, the agencies used cost-benefit analysis as a significant supplementary justification for the administration's change in statutory interpretation.

Each new administration has the power to put its policy stamp on the nation. However, the actions agencies take to lay out and implement these policies must be sufficiently within the law to survive a challenge in court. Each of the Trump environmental regulatory rollbacks spawned series of lawsuits from coalitions of states and environmental and health advocacy groups, many of which were ultimately successful due to the rules' procedural deficiencies.[13] These lawsuits have tended to focus on two main categories of legality: First, the proper scope and interpretation of administrative agencies' statutory authority to regulate specific environmental matters; and second, the inadequacy or irrationality of the agencies' stated justifications for rolling back the environmental protections.

10. USACE & EPA Navigable Waters Protection Rule, 85 Fed. Reg. 22250 (Apr. 21, 2020) (to be codified at 33 C.F.R. pt. 328 and 40 C.F.R. pts. 110, 112, 116, 117, 120, 122, 230, 232, 300, 302, 401).

11. EPA Affordable Clean Energy Rule, 84 Fed. Reg. 32520 (2019), *vacated by* Am. Lung Ass'n v. EPA, 985 F.3d 914 (D.C. Cir. 2021), *reversed sub nom* W. Va. v. EPA, 142 S. Ct. 2587 (2022).

12. *See* EPA & NHTSA 2021–2026 Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Passenger Cars and Light Trucks, 85 Fed. Reg. 24174 (Apr. 30, 2020) (to be codified at 40 C.F.R. pts. 86, 600 and 49 C.F.R. pts. 523, 531, 533, 536, 537).

13. *See, e.g.*, Am. Lung Ass'n v. EPA, 985 F.3d 914 (D.C. Cir. 2021) (ACE Rule), *rev'd* W. Va. v. EPA, 142 S. Ct. 2587 (2022).

Both of these types of issues are squarely within the scope of judicial review of administrative agency actions under the APA.[14] For almost the last forty years, courts have relied on the *Chevron* two-part deference test, but more recently the Supreme Court has also imposed limits on agencies' statutory interpretation by applying the "major questions doctrine," which presumes that Congress does not grant broad authority to an executive branch agency in an area "of vast economic and political significance" without explicit, clear instructions.[15]

In addition, over the past several decades, the rise in agency *procedural* requirements requiring data—with legislative, executive, and judicial support—has enabled advocates to challenge the *substance* of agency regulatory by challenging the documentation of relevant scientific and economic information behind each decision.[16] Legal advocates challenging the increasing administrative rollbacks, which have mushroomed in the last decade, would benefit from digging deeper into the details of agencies' economic analysis—but that digging is difficult because that data is usually not presented in the rulemaking itself.

This Article focuses on the Trump WOTUS rule changes as a particularly representative case study of how a review of the economic assumptions behind a rule can unearth real legal vulnerabilities, and thus why it is important to make that data more readily accessible in the rulemaking process. How agencies conduct regulatory impact analysis and display that information has broad implications. Based on the lessons of the WOTUS rule and other recent changes to environmental regulations, this Article will proffer recommendations for improving the rulemaking process to address the oversight of both agency practice and of White House-led centralized review of the regulatory process.

This Article proceeds as follows. In Part II, we introduce the basics of federal agency rulemaking under the Administrative Procedure Act

14. 5 U.S.C. § 706(2)(A)–(D).

15. Chevron v. NRDC, 467 U.S. 837 (1984); W. Va. v. EPA, 142 S. Ct. 2587 (2022). *See also* Nat'l Fed'n of Indep. Bus. v. Dep't of Labor, 142 S. Ct. 661 (2022) (Gorsuch, J., concurring); *see also* Ala. Ass'n of Realtors v. Dep't of Health & Hum. Servs., 141 S. Ct. 2485 (2021). These latter two cases were both decided on the Court's "shadow docket," effectively halting COVID-related agency regulations. The Supreme Court has thus far not overruled *Chevron* but has declined to apply it in situations where previous iterations of the Court might have been expected to do so. *See* Am. Hosp. Ass'n v. Becerra, 142 S. Ct. 1896 (2022) (striking down an agency interpretation of statutory language regarding Medicare reimbursements without any mention of *Chevron*).

16. *See infra* Part II.

(APA), judicial review of agency actions under the arbitrary and capricious standard, and the development of regulatory impact analysis—including the role of economic modeling and scientific data in that process. The political history of regulatory impact analysis since the Reagan administration is relevant in understanding how and why it is conducted and how it fits into litigation under the APA. In Part III, we present the WOTUS case study, detailing the regulatory history and the economic analysis that undermines the Trump administration's justification for its rulemaking effort. Lastly, Part IV considers the lessons of the WOTUS rule in context, which provides insights into how policymakers might improve oversight of the regulatory process and the use of cost-benefit analysis in decision-making, and make it more transparent in the rulemaking process. Current administrative practice fosters a failure to examine underlying scientific and economic analyses, which can lead to woefully inadequate understanding of a particular rulemaking. To effectively understand what economic or scientific data supports a rulemaking, that information must be made more accessible, such that attorneys can better understand potential deficiencies when reviewing complex rules.

## II. AGENCY RULEMAKING BASICS

In 1946, Congress established a code of procedures and standards for administrative agency decision-making: the Administrative Procedure Act (APA).[17] The APA followed a period of rapid expansion of federal agency authority over economic regulation during the New Deal era. Decades of agency practice and judicial decisions have since added additional layers, at times creating clearer standards for agencies to follow and at other times muddying the waters.

Under the APA, major regulations fall in the category of "rules," defined in the statute as "agency statement[s] of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy[.]"[18] The APA provides two pathways for rulemaking to create regulations that carry the force and effect of law: "formal" rulemaking that follows agency hearings with trial-like procedures,[19] and "informal" or "notice-and-comment" rulemaking,

17. 5 U.S.C. §§ 551 *et seq.*
18. *Id.* § 551(4).
19. *Id.* §§ 556-557.

which, despite the name, does involve specific statutory steps.[20] Courts, statutes, and agencies have sharply limited the circumstances in which "formal" rulemaking is used, finding the format inappropriate for the types of prospective, generally applicable regulations that predominate in agency practice.[21]

Section 553 of the APA lays out the standardized steps for informal rulemaking: (1) notice provided to the public of a rulemaking proposal via publication in the Federal Register; (2) opportunity given to the public to comment on the proposal; and (3) publication of the agency's final rule.[22] However, Congress has also added to these requirements for certain general categories of decisions based on their impacts, and agency-incorporation statutes may similarly require additional procedural steps.[23]

Two aspects of administrative rulemaking are of particular importance when discussing legal challenges to regulatory rollbacks. First, under the APA, persons or organizations that are adversely affected may seek judicial review of "final agency actions," which include the final products of notice-and-comment rulemaking.[24] Courts, in part, review agencies' substantive decisions under the "arbitrary and capricious" standard, which affords deference to agency expertise but provides a pathway for reviewing the reasonableness and rationality of those decisions.[25] Second, beginning in the 1980s, a series of executive orders (EOs) required agencies to prepare a regulatory impact analysis for major rules, which has led to the rise of agency cost-benefit analysis and the centralization of government-wide review of regulatory policy by White House staff.[26] The development of these requirements has led

20. *See id.* § 553.

21. *See, e.g.*, United States v. Fla. E. Coast Ry., 410 U.S. 224 (1973).

22. 5 U.S.C. § 553.

23. Examples of general requirements that apply across the federal government include the National Environmental Policy Act, 42 U.S.C. § 4332(2)(C) (requiring the preparation of a "detailed statement" on the environmental impact of proposed agency actions); the Regulatory Flexibility Act, 5 U.S.C. §§ 601 *et seq.*; and the Paperwork Reduction Act, 44 U.S.C. §§ 3501 *et seq*.

24. 5 U.S.C. §§ 702, 704.

25. *Id.* § 706(2)(A). Under the APA and Supreme Court jurisprudence, decisions agencies make must be justified based only on the record before the agency. Because courts do not accept *post hoc* rationalizations, agencies must carefully document the information they rely on in developing regulations and analyzing their potential impact.

26. The era of centralized presidential direction of agency cost-benefit analysis began in earnest under President Reagan in 1981. Exec. Order 12,291, 46 Fed. Reg. 13193 (1981). Predecessors of this order include President Carter's call for review of "significant regulations" and President Ford's "inflation impact statements." *See* Exec. Order 12,044, 43 Fed. Reg. 12661 (1978) (Carter); Exec. Order 11,821, 39 Fed. Reg. 41501 (1974) (Ford).

to the production of additional scientific and economic data in support of rulemaking that may provide the crux of evidence supporting the administrative action and thus are relevant in judicial review under the arbitrary and capricious standard.

### A. Judicial Review Under the "Arbitrary & Capricious" Standard

Section 706 of the APA instructs courts to "hold unlawful and set aside agency action, findings, and conclusions found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."[27] Case law has reduced this to the common shorthand of "arbitrary and capricious" review.[28]

#### 1. The Basics: Review Under *Overton Park*

In its seminal *Overton Park* decision,[29] the Supreme Court explained that the arbitrary and capricious test goes beyond a simple inquiry as to whether agencies have acted within the scope of their statutory authority (although that is an important element of APA judicial review).[30] Although arbitrary and capricious review is deferential to agency expertise—"[t]he court is not empowered to substitute its judgment for that of the agency"—the *Overton Park* Court emphasized that it "must consider whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment."[31]

Section 706 requires that courts "review the whole record" that agencies develop in their decision-making process.[32] Following *Overton Park*, courts have applied greater scrutiny to informal agency decisions, which inspired agencies to take greater steps to develop a written record showing the reasoning for its decisions.[33] This has

27. 5 U.S.C. § 706(2)(A).

28. *See, e.g.*, Motor Vehicles Mfrs. Ass'n v. State Farm, 463 U.S. 29, 41–56 (1983) (referring repeatedly to the "arbitrary and capricious test" and "standard").

29. Citizens to Preserve Overton Park v. Volpe, 401 U.S. 402 (1971). The case dealt with review of the Department of Transportation's approval of an interstate highway expansion in Memphis, Tennessee.

30. 5. U.S.C. § 706(2)(C) directs courts to invalidate agency actions "in excess of statutory jurisdiction, authority, or limitations, or short of statutory right." Thus, the question of whether action is "arbitrary" and "capricious" under Section 706(2)(A) of the APA is distinct from the question of whether the agency has acted consistently with its statutory authority.

31. *Overton Park, supra* note 29, at 416.

32. 5 U.S.C. § 706.

33. For example, in 2021, when the Supreme Court upheld an FCC decision to repeal and/or amend three rules on media ownership, the bulk of the Court's opinion explaining its deference

been the case whether the decision in question is an "adjudication" (a decision made by determining facts and applying the law and regulations to a particular set of circumstances), like the approval of the highway in *Overton Park*, or a "rule" of general applicability.[34]

2. Changed Positions: Review of Rescinded and Amended Rules

The APA's definitions of "rule" and "rulemaking" include not only the formulation of a rule but also an amendment to or rescission of an existing rule.[35] Therefore, when an agency seeks to change a regulation, the APA requires the agency to follow the same notice-and-comment process, subject to the same arbitrary and capricious review.[36] Many of the Trump administration's rollback efforts ran into this procedural roadblock: During 2017 and 2018 courts struck down move after move made by EPA and other agencies to forestall, delay, or walk back Obama-era regulations without properly following the APA's informal rulemaking requirements.[37]

In the *State Farm* case, the Supreme Court laid out four points that represent the heart of the Court's arbitrary and capricious inquiry for rulemaking:

> Normally, an agency rule would be arbitrary and capricious if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.[38]

In that case, NHTSA rescinded an earlier regulation that had required automobile manufacturers to include "passive restraint"

to the FCC focused on the "significant record evidence" that the agency had put together (even though there were disputes about the validity of some of the data sets the FCC had relied on in reaching its conclusions). FCC v. Prometheus Radio Project, No. 19–1231, slip op. at 8 (U.S. April 1, 2021).

34. The APA provides the distinction between these categories of agency actions in 5 U.S.C. § 551(4)-(7).

35. *Id.* § 551(4).

36. *See, e.g.*, Motor Vehicle Mfrs. Ass'n v. State Farm, 463 U.S. 29, 42 (1983) (applying the arbitrary and capricious standard and holding that "the direction in which an agency chooses to move does not alter the standard of judicial review established by law").

37. *See* BETHANY DAVIS NOLL & ALEC DAWSON, DEREGULATION RUN AMOK: TRUMP-ERA REGULATORY SUSPENSIONS AND THE RULE OF LAW (2018); For a conservative perspective noting the same issue, see Jonathan Adler, Trump's EPA is Having a Hard Time in Federal Court, National Review, October 15, 2018, at https://www.nationalreview.com/magazine/2018/10/15/hostile-environment/ [https://perma.cc/ADP7-N2Y8].

38. *State Farm*, 463 U.S. at 43.

safety features of either automatic seatbelts or airbags.[39] The agency, revisiting its rule under the Reagan administration, concluded that automatic seatbelts would actually not result in the anticipated safety benefits, even though the overwhelming majority of automakers had already opted for this change.[40] In its review, the Court noted an obvious solution that the agency had apparently not considered: simply mandating the installation of airbags, which would respond to the purported problem and would seemingly better protect drivers and passengers.[41]

According to the APA text[42] and to foundational Supreme Court decisions,[43] there is no formal difference between the level of scrutiny that courts apply to the *rescission or amendment* of a rule compared to the scrutiny applied to a new rule created from scratch. But as a practical matter, there will almost always be differences in how courts evaluate these two types of situations because the presence of an existing regulatory policy adds contextual information that is available to both the agency officials in making rule changes and to the judges in reviewing them.

In *FCC v. Fox*, Justice Scalia, writing for the majority, rejected the idea that an agency has the burden to demonstrate that its new, changed rule is *more reasonable* than an earlier one or that its prior position was *unreasonable*.[44] The Court's test since that time has been the same: The agency must simply show that the new decision was the result of an adequate, reasoned decision-making process.[45] However, it is not difficult to see that in certain cases,[46] statutory

39. *Id.* at 38.

40. *Id.* at 47.

41. *Id.* at 46–48 ("Given the effectiveness ascribed to airbag technology by the agency, the mandate of the Safety Act to achieve traffic safety would suggest that the logical response to the faults of detachable seatbelts would be to require the installation of airbags. At the very least this alternative way of achieving the objectives of the Act should have been addressed and adequate reasons given for its abandonment.").

42. *See* 5 U.S.C. §§ 551(4), 706.

43. FCC v. Fox Television Stations, Inc., 556 U.S. 502 (2009).

44. *Id.* at 514 ("[O]ur opinion in *State Farm* neither held nor implied that every agency action representing a policy change must be justified by reasons more substantial than those required to adopt a policy in the first instance.").

45. Justice Scalia applied Section 706 and *State Farm* to hold that there is still a difference between the more deferential review of an agency's decision *not to act in the first place* under Section 706(1) and review of a promulgated regulation or decision under Section 706(2), but concluded that review of the agency's first and second crack at a rule should be the same once an initial decision to act had been made. *See Fox*, 556 U.S. at 514–15.

46. For example, as in the NHTSA example below, Congress may specifically direct an agency to provide a regulation that sets standards at a "maximum feasible" level or a level "sufficient to

obligations make it impossible to do the latter—demonstrate reasonableness—without also showing a shortcoming in the former rule that justifies the move to change course.

Take, for instance, the ongoing controversy about the federal government's greenhouse gas emissions and fuel economy standards for new motor vehicles.[47] The relevant statute, the Energy Policy and Conservation Act of 1975, requires NHTSA to set fuel economy standards at the "maximum feasible average fuel economy level" for each model year.[48] During the Obama administration, EPA and NHTSA issued a joint rulemaking setting the target for the average car at 54.5 miles per gallon by 2025.[49] In 2020, the Trump administration finalized a rule that lowered the target significantly.[50] In order to reasonably show that the new, lower standard meets the statutory requirement of "maximum" feasibility, the agencies necessarily must claim that the earlier level was unreasonable or that changed circumstances have rendered it unreasonable.[51] Such instances demonstrate that once the agency has established a regulatory policy, the figurative bell cannot be easily "un-rung."

One reason courts historically give some deference to agencies in the arbitrary and capricious standard is that there is an asymmetry of

protect public health," which necessitates a finding by the agency that what's in the regulation is the best that can be reasonably done.

47. *See* EPA & NHTSA 2021–2026 Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Passenger Cars and Light Trucks, 85 Fed. Reg. 24174 (Apr. 30, 2020) (to be codified at 40 C.F.R. pts. 86, 600 and 49 C.F.R. pts. 523, 531, 533, 536, 537).

48. 49 U.S.C. § 32902(a).

49. EPA & NHTSA 2017 Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards, 77 Fed. Reg. 62624 (Oct. 15, 2012) (to be codified at 40 C.F.R. pts. 85, 86, 600 and 49 C.F.R. pts. 523, 531, 533, 536, 537). The 54.5 mpg number reflected values in testing conditions rather than "real-world" usage and represented what would be achieved if full compliance under the standard were done by making fuel efficiency improvements. In other words, the expected average to be achieved would have been less, but the number is useful for comparison purposes. *See id.* at 62642.

50. *See* EPA & NHTSA 2021–2026 Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Passenger Cars and Light Trucks, 85 Fed. Reg. 24174 (Apr. 30, 2020) (to be codified at 40 C.F.R. pts. 86, 600 and 49 C.F.R. pts. 523, 531, 533, 536, 537).

51. EPA Administrator Michael Regan announced in April 2021 that the Biden administration would be revising the GHG and fuel economy standards for cars. *See, e.g.*, Jennifer A. Dlouhy & Stephen Lee, *EPA Chief Vows Tougher Tailpipe Rules by July, Unwinding Trump's*, BLOOMBERG GREEN (Apr. 6, 2021), https://www.bloomberg.com/news/articles/2021-04-06/epa-chief-vows-tougher-tailpipe-rules-by-july-unwinding-trump-s [https://perma.cc/5VLR-V9HP]. In May 2022, NHTSA revisited the issue and finalized a rule for model years 2024–2026, the remainder of the time period that the Trump administration's less stringent rule had covered. *See* NHTSA, Corporate Average Fuel Economy Standards for Model Years 2024–2026 Passenger Cars and Light Trucks, 87 Fed. Reg. 25710 (May 2, 2022) (to be codified at 49 C.F.R. pts. 531, 533, 536, 537).

information in the regulatory process. Bureaucratic decision-makers are the technical, subject matter experts, and courts ought not substitute their judgment for that of the agency.[52] Comparing a brand-new rule with a previously existing regulatory vacuum is difficult, and judges in those circumstances have little to go on in determining whether an agency is acting reasonably. But once a rule has been put in place, the court now has a basis for concrete comparisons. Even though, doctrinally speaking, the agency does not need to disprove the reasonableness of a prior position, the old rule and everything that led up to it all remains part of the agency's record.[53] There can be no adequate, reasonable way for an agency make a new decision without considering the process, data, and analysis that led to the old rule.

Although arbitrary and capricious review remains a deferential standard, it provides a substantive safety net on the administrative decision-making process, ensuring that the outcome is sufficiently rational and encouraging transparency in agencies' reasoning. It provides an opening for courts to look at the connection between the record of evidence the agency consulted and the agency's ultimate decision. When the data, analysis, and information before an agency are thorough, arbitrary and capricious review should weed out 'bad' decisions unsupported by the record. But that is not all: Judicial review also opens up the possibility of methodologically examining the content of that record and the quality of the economic and scientific analysis upon which agencies base their regulatory decisions. An agency process that relies on evidence that is unreliable or that "[fails] to consider an important aspect of the problem" fails the test.[54]

As discussed at length below, the continued growth in regulatory impact analysis and cost-benefit analysis means that agencies must produce more and more information and economic data that will be available in the record on judicial review. The case study of EPA's WOTUS rule from the Trump administration demonstrates the importance of this information to an agency's final decision-making—

52. *See, e.g.*, Motor Vehicle Mfrs. Ass'n v. State Farm, 463 U.S. 29, 43 (1983); Citizens to Preserve Overton Park v. Volpe, 401 U.S. 416 (1971).

53. Courts review agency decisions on the basis of the "whole record" and on the reasoning that the agency provides at the time the decision is made (i.e., not acknowledging any *post hoc* rationale). *See* 5 U.S.C. § 706; SEC v. Chenery Corp., 318 U.S. 80, 94 (1943) (*Chenery I*) (holding that "the grounds upon which the administrative agency acted be clearly disclosed and adequately sustained").

54. *State Farm*, 463 U.S. at 42.

and the related need to make this information easily available in order to evaluate the reasonableness of agency actions and the propriety of challenging the rule under the APA's arbitrary and capricious test.

## B. The Rise of Regulatory Impact Analysis

During the "environmental decade" of the 1970s, Congress enacted most of the landmark statutes that form the backbone of federal law on the protection of the environment and public health. Throughout the decade, Congress created new agencies and delegated authority to EPA and other administrative agencies, which assumed diverse roles in implementing the new and expanded environmental statutes. New regulations had both predictable and unpredictable impacts on economic activity as industrial sectors became subject to the new statutes' provisions. Antiregulatory pressures in Congress and in private industry quickly arose—in part because the 1970s "first generation" of environmental statutes focused explicitly on scientific and public health criteria for establishing the level of regulation, in some cases to the exclusion of economic concerns.[55] Since that time, deregulatory advocates have repeatedly employed economic-based rhetoric to oppose environmental, consumer protection, or health and safety regulations by arguing that regulations are too expensive or by framing regulatory proposals as pitting "jobs" vs. "the environment" or some other public interest.[56]

Early in the era of expanding regulatory activity, the White House began imposing procedural requirements on agencies to ensure consideration of the economic impact of regulations. In 1974, President Ford issued an executive order requiring each agency to prepare "Inflation Impact Statements" for major regulations and rules "which may have a significant impact on inflation" and tasked the Office of Management and Budget (OMB) with the responsibility of developing criteria for undertaking economic analyses.[57] The name

55. *E.g.*, Whitman v. Am. Trucking Ass'n, 531 U.S. 457 (2001) (interpreting Section 109 of the Clean Air Act to exclude consideration of economic cost in setting national ambient air quality standards).

56. There is also a strain of administrative law theory, the unitary executive, which would allow a President direct decision making authority over every action of the administrative state. *See, e.g.*, WILLIAM F. FUNK ET AL., ADMINISTRATIVE PROCEDURE AND PRACTICE: A CONTEMPORARY APPROACH 609–612 (6th ed. 2018).

57. Exec. Order No. 11,821, 3 C.F.R. 926 (1974). The Order also directed the preparation of inflation impact statements for proposals of major legislation—similar in language to the requirement provided in the National Environmental Policy Act. *See id.*; 42 U.S.C. § 4332.

was changed in 1976 to "Economic Impact Statements."[58] Less than two years later, President Carter's Executive Order articulated a policy of "achiev[ing] legislative goals effectively and efficiently," with regulations that do not "impose unnecessary burdens on the economy, on individuals, on public or private organizations, or on State and local governments."[59] This policy included the establishment of a government-wide regulatory agenda and agency-specific processes for classifying 'significant' regulations that warrant further analysis.[60]

1. Cost-Benefit Analysis in the Reagan Executive Order

Executive Order 12,291 marked a turning point in presidential control of the executive branch's regulatory agenda, establishing the foundation for the requirement that agencies must still meet today in preparing and analyzing economic and scientific data to justify regulatory actions.[61] The order formalized some of the policies from President Reagan's predecessors and added specific procedural requirements for review of major regulatory actions prior to publication. While earlier executive orders had set up OMB to receive information from individual agencies and oversee their preparation of regulatory impact analysis, Executive Order 12,291 gave the Office of Information and Regulatory Affairs (OIRA), a division within OMB, direct authority to review the content of executive agency rules and regulatory analyses and explicitly allowed the OMB Director to block rules until this review was completed.[62]

President Reagan's order defined a "major rule" as a regulation likely to have "[a]n annual effect on the economy of $100 million or more" or other major economic impacts.[63] OMB was directed to provide criteria for agencies to use in determining whether each proposal or rule under consideration was "major."[64] The order expanded on the 1970s concept of economic impact analysis by requiring each executive agency to prepare, for each major rule, a Regulatory Impact Analysis, including a description of the rule's

58. Exec. Order No. 11,949, 42 Fed. Reg. 1017 (Dec. 31, 1976).
59. Exec. Order No. 12,044, 43 Fed. Reg. 12661(1) (Mar. 23, 1978).
60. *Id.* § 2.
61. Exec. Order No. 12,291, 46 Fed. Reg. 13193 (Feb. 17, 1981).
62. *Id.* § 3(f)(1) ("Upon the request of the [OMB] Director, an agency shall . . . refrain from publishing its preliminary Regulatory Impact Analysis or notice of proposed rulemaking until [review of the Regulatory Impact Analysis] is concluded.").
63. *Id.*§ 1(b).
64. *Id.* § 3(b).

potential benefits, costs, and net benefits (including effects "that cannot be quantified in monetary terms"), as well as alternative approaches that could potentially reduce regulatory costs.[65]

President Reagan's order was part of an overall strategy to both centralize and politicize executive branch authority by shifting decision-making authority to the White House and by appointing officials across various departments and agencies who took aggressive postures in reshaping regulatory priorities over the objections of bureaucratic staff.[66] Requiring cost-benefit analysis induced procedural change at the agency level, slowing down the rulemaking process—an intended feature, rather than a bug, of the order—and gave OMB the ability to stop or put pressure on agencies to change rules with which the White House had substantive disagreements.[67]

Throughout the 1980s, under the Reagan and first Bush administrations, criticism of cost-benefit analysis centered on the imbalance that the analysis caused by disproportionately focusing on *costs*.[68] Regulatory costs in the areas of environmental protection, health, and safety tend to be more highly concentrated on the regulated industries themselves, such as obligations to change practices, install pollution control equipment, or adopt safety procedures. Review at OMB gave regulated parties "an additional mechanism for the back-channel participation . . . which reinforced the review system's antiregulatory inclinations."[69] Benefits, on the other hand, tend to be more difficult to quantify and are enjoyed by the public at large, a widespread and diffuse entity than cannot realistically organize into a lobbying coalition in front of the OMB. As a result, the White House gained a quantitative cudgel to use in opposing regulation, with no mechanism for after-the-fact review as to whether those cost or benefit estimates were accurate.

### 2. Cost-Benefit Analysis from Clinton to Biden

The heart of President Reagan's executive order lived on. In 1993, President Clinton signed Executive Order 12,866, which adopted

65. *Id.* §§ 3(a), (d).

66. *See, e.g.*, Elena Kagan, *Presidential Administration*, 114 HARV. L. REV. 2245, 2277 (2001).

67. *See, e.g.*, THOMAS O. MCGARITY, REINVENTING RATIONALITY: THE ROLE OF REGULATORY ANALYSIS IN THE FEDERAL BUREAUCRACY 18–19 (1991) (*cited in* Kagan, *supra* note 66, at 2276).

68. *See, e.g.*, MCGARITY, *supra* note 67; FRANK ACKERMAN & LISA HEINZERLING, PRICELESS: ON KNOWING THE PRICE OF EVERYTHING AND THE VALUE OF NOTHING (2005).

69. Kagan, *supra* note 66, at 2280.

many of the same elements of cost-benefit analysis and centralized OMB review of agency regulation that had been put in place by his two predecessors.[70] The first section in the executive order directed executive agencies to "assess both the costs and the benefits of the intended regulation and, recognizing that some costs and benefits are difficult to quantify, propose or adopt a regulation only upon a reasoned determination that the *benefits of the intended regulation justify its costs*."[71]

Despite criticism from liberal constituencies within the Democratic Party that had objected to the continuation of this type of regulatory review, cost-benefit analysis and the role of OMB became more consolidated in the 1990s. President Clinton exerted centralized control over the administration's regulatory agenda to a greater extent than had been seen before, but with some important changes to the process that facilitated some greater degree of transparency and public participation in the OMB/OIRA review process, as well as a nod to the importance of qualitative measures and distributive impacts of regulation.[72]

Under the George W. Bush administration,[73] OMB finalized guidance on the preparation of regulatory impact analysis in OMB Circular A-4.[74] The document built on "best practices" that the Clinton OMB had established in 1996, and has continued to guide the process since.[75] Circular A-4 calls for "an examination of alternative approaches" and "an evaluation of the benefits and costs—quantitative and qualitative—of the proposed action and the main

70. Exec. Order No. 12,866, 58 Fed. Reg. 51735 (Sept. 30, 1993).

71. *Id.* § 1(b)(6) (emphasis added). The policy that benefits ought to *justify* the costs was a subtle but intentional shift from the Reagan-era requirement that the benefits *outweigh* the costs, allowing in theory, if not in practice, the idea that non-quantifiable benefits might take a more prominent role in the process. *See* Amy Sinden, *Executive Order 12866's Cost-Benefit Test is Still With Us And I Can Hear Ben Franklin Rolling Over in His Grave*, CTR. FOR PROGRESSIVE REFORM (Oct. 2, 2013), http://progressivereform.org/cpr-blog/executive-order-12866-s-cost-benefit-test-is-still-with-us-and-i-can-hear-ben-franklin-rolling-over-in-his-grave/ [https://perma.cc/HKT8-2U27].

72. *See* Kagan, *supra* note 66, at 2285–2290 (describing the differences between Executive Order 12,866 and its predecessors).

73. President George W. Bush added an additional gloss on cost-benefit analysis by requiring each agency to "identify in writing the specific market failure . . . or other specific problem that it intends to address" in justifying significant new rules; however, this requirement was eliminated by President Obama. Exec. Order No. 13,422, 3 C.F.R. 191 (2008), *revoked by* Exec. Order No. 13,497, 3 C.F.R. 218 (2010).

74. OFF. OF MGMT. & BUDGET, EXEC. OFF. OF THE PRESIDENT, OMB CIRCULAR A-4, REGULATORY ANALYSIS (2003).

75. *See id.*

alternatives identified by the analysis."[76] It includes guidance for agencies to apply economic concepts throughout the process (e.g., opportunity costs of regulation, the use of "willingness to pay" estimates as a measurement of costs and benefits, and guidelines for applying discount rates for future costs and benefits).[77] It is important to note here that individual agencies maintain their own policies and procedures for conducting regulatory impact analysis, in line with executive orders and informed by Circular A-4.[78]

President Barack Obama carried forward the essential elements of the cost-benefit analysis of his predecessors, issuing his own executive order in 2011.[79] The Obama administration's ratcheted-up focus on cost-benefit analysis led to high-profile clashes in Obama's first term between the OIRA Administrator, Cass Sunstein, and agency officials at EPA, such as first-term EPA Administrator Lisa Jackson.[80] In one example, OIRA specifically directed EPA to withdraw a proposed revision of the national ambient air quality standard (NAAQS) for ground-level ozone before it was finalized.[81]

President Trump's tenure marked a sharp departure from the bipartisan development of cost-benefit analysis. In January 2017, President Trump signed his own executive order that defined his administration's approach to the regulatory process: rejecting the balancing necessary for a rational cost-benefit analysis in favor of an exclusive focus on regulatory costs.[82] The "one in, two out" order, as it came to be known, required each agency, upon the proposal of any new administrative rulemaking, to identify two regulations for elimination.[83] The executive order further imposed a "regulatory

76. *Id.* at 2.

77. *Id.* at 18–37.

78. Given that the case study in this Article is centered on the Clean Water Act, EPA's guidelines are of particular significance. EPA, GUIDELINES FOR PREPARING ECONOMIC ANALYSES (2014).

79. Exec. Order No. 13,563, 3 C.F.R. 215 (2012).

80. Lisa Heinzerling, Associate Administrator of Policy at EPA in 2009, has been a prominent critic of Sunstein's tenure at OIRA. *See, e.g.*, Lisa Heinzerling, *Cost-Benefit Jumps the Shark: The Department of Justice's Economic Analysis of Prison Rape*, GEO. L. FAC. BLOG (June 13, 2012), https://gulcfac.typepad.com/georgetown_university_law/ [https://perma.cc/8TRV-GCWD] (describing the application of "willingness to pay" economic analysis in a regulation setting standards for preventing and responding to rape and sexual assault in prisons).

81. Off. Info. & Regul. Affs., Letter from OIRA Administrator Cass Sunstein to EPA Administrator Lisa Jackson on Ozone National Ambient Air Quality Standards (Sept. 2, 2011).

82. Exec. Order No. 13,771, 82 Fed. Reg. 9339 (Jan. 30, 2017).

83. *Id.* § 2(a) ("Unless prohibited by law, whenever an executive department or agency (agency) publicly proposes for notice and comment or otherwise promulgates a new regulation, it shall identify at least two existing regulations to be repealed.").

cap," prohibiting each agency from promulgating any new regulation with any "incremental cost" unless fully offset by the repeal of existing regulations.[84] On its face this executive order was problematic, as it would seem to interfere with statutory requirements of executive branch agencies.[85] But it also undercut the concept of economic efficiency, of maximizing benefits in tandem with reducing costs, which had been a hallmark of acceptable agency action that had guided the executive branch for over forty years.

As an indicator of the one-sidedness of the policy, the words "cost" or "costs" appeared eighteen times in President Trump's executive order (including the title), while "benefit" appeared only once—in the disclaimer at the end that the order "is not intended to, and does not, create any right or benefit."[86]

President Biden, on the day of his inauguration in 2021, issued a memorandum on "Modernizing Regulatory Review" that laid out the new administration's approach to regulatory review, "reaffirm[ing] the basic principles" of Clinton and Obama's orders.[87] Importantly, the memorandum directed OMB to revise Circular A-4;[88] numerous scholars and commentators have since weighed in with a variety of

84. *Id.* § 2(b)–(c) (directing agencies that "the total incremental cost of all new regulations, including repealed regulations, to be finalized this year shall be no greater than zero, unless otherwise required by law or consistent with advice provided in writing by the Director of the Office of Management and Budget").

85. Section 2 of the Order qualified these requirements with caveats such as "unless otherwise required by law" and "to the extent permitted by law" and directed agencies to follow the APA in rule repeals. *Id.* § 2(a)–(c). However, requiring agencies to use new regulations as a trigger to force rule rescission creates a contradiction with the reasoned decision making required by the APA's arbitrary and capricious standard by introducing external factors in the decision-making process that Congress did not intend to include.

86. *Id.* § 5(c). The order contained a multitude of exceptions, and a study conducted eighteen months after its signing revealed that few, if any, new agency rules had actually been subject to the requirement. *See* Connor Raso, *How Has Trump's Deregulatory Order Worked in Practice?*, BROOKINGS (Sept. 6, 2018), https://www.brookings.edu/research/how-has-trumps-deregulatory-order-worked-in-practice/ [https://perma.cc/9V9D-QPNZ]. For an earlier quantitative study of this question from 2017, *see* Roncevert Ganan Almond, *Measuring President Trump's Regulatory Reform Agenda: The 2-for-1 Rule*, YALE J. ON REGUL. (Nov. 22, 2017), https://www.yalejreg.com/nc/measuring-president-trumps-regulatory-reform-agenda-the-2-for-1-rule-by-roncevert-ganan-almond/ [https://perma.cc/GGR7-EZCT]. In 2019, the Department of Transportation included the "2-for-1" requirement in its Administrative Rulemaking, Guidance, and Enforcement Procedures, but this policy was reversed in March 2021. *See* DOT Repeal of Administrative Rulemaking, Guidance, and Enforcement Procedures 86 Fed. Reg. 17292 (Mar. 24, 2021) (to be codified at 14 C.F.R. pt. 302, 39939 C.F.R. pts. 1, 5, & 7, and 49 C.R.F. pts. 106, 389, 553, & 601).

87. Presidential Memorandum, Modernizing Regulatory Review, 86 Fed. Reg. 7223 (Jan. 26, 2021).

88. *Id.* § 2(b).

different perspectives on how Biden's appointees may conduct such a review and implement potential changes.[89]

3. Four Decades of Criticism

In the forty-plus years of the executive branch's use of regulatory impact analysis, several lines of criticism merit discussion, both from the right and from the left. On one hand, conservative policymakers and judges have looked with increasing skepticism at agencies' use of "co-benefits"—additional benefits that flow directly from the regulation but are not tied to the statutory justification for the regulation. Some have argued that this criticism is rooted in a normative preference against regulation and an expectation that cost-benefit analysis and OMB review ought to slow down or stop costly regulation.[90] Indeed, the practical effect of OMB review during the Reagan administration and subsequent presidencies was to give industry advocates and critics of agency regulation in government an opportunity to use cost-benefit analysis as a gatekeeper, utilizing the language of economics.[91] Yet as regulatory impact analysis matured in the Clinton administration, scientific studies repeatedly vindicated the rationality of environmental, health, and safety regulations, showing that the benefits to society regularly outmatched estimated costs, sometimes by an order of magnitude or more.[92]

In *Michigan v. EPA*, the Supreme Court grappled with the use of co-benefits in justifying the regulation of mercury and toxic air emissions from power plants.[93] The Clean Air Act Amendments of 1990 specifically required that EPA undertake a study of pollutants from the power sector and, prior to regulating that sector in particular, make a finding as to whether such regulation is

89. The Penn Program on Regulation published a series of six essays analyzing the memorandum in February 2021. *Regulatory Review Reimagined*, REGUL. REV. (Feb. 15, 2021), https://www.theregreview.org/2021/02/15/regulatory-review-reimagined/ [https://perma.cc/4GC9-8ALE].

90. *See* ACKERMAN & HEINZERLING, *supra* note 68, at 42 (connecting cost-benefit analysis requirements at the OMB to earlier studies by economists in the 1970s).

91. *See id.*

92. For example, EPA's report in 2011, which looked at the results from the Clean Air Act from 1990 to that point and projected until 2020, concluded that the benefits from clean air—better health, avoided mortality, and improved productivity—"exceed[ed] costs by a factor of more than 30 to one," with estimated benefits of $2 trillion compared to $65 billion in costs. *Benefits and Costs of the Clean Air Act 1990–2020, the Second Prospective Study*, EPA (Aug. 10, 2022), https://www.epa.gov/clean-air-act-overview/benefits-and-costs-clean-air-act-1990-2020-second-prospective-study [https://perma.cc/J4NW-ZXZG].

93. Michigan v. EPA, 576 U.S. 743 (2015).

"appropriate and necessary."[94] After long delays from several administrations, the Obama administration finalized a rule under this section that limited mercury and toxic emissions from fossil-fuel-fired power plants (commonly referred to as the "MATS" rule).[95] The Supreme Court struck down the rule in a 5-4 decision, on the grounds that EPA had not considered the cost of the regulation at the initial stage of determining whether regulation was "appropriate and necessary."[96] Justice Scalia's majority opinion rejected the agency's reliance on quantified co-benefits of the regulatory program to justify the anticipated high compliance costs.[97] After the Obama-era EPA reissued the MATS rule in 2016 (this time, considering costs), the Trump administration reversed the "appropriate and necessary" finding in 2020, revising and rejecting EPA's prior approach to cost-benefit analysis.[98] The 2020 finding sharply criticized reliance on co-benefits to justify regulation, explicitly stating that the agency did not view all benefits to be equal.[99]

The Trump EPA's narrow focus marked a rejection of a strictly *economic* or *efficiency*-based approach to regulatory impact analysis by favoring the policy goal of restricting agency authority over a maximization of social welfare in the regulatory process. In other words, the Trump EPA's conservative criticism of the economic impact analysis process was that the tool, when employed by a

94. 42 U.S.C. § 7412(n)(1)(A).

95. EPA National Emission Standards for Hazardous Air Pollutants, 77 Fed. Reg. 9304 (Feb. 16, 2012) (to be codified at 40 C.F.R. pts. 60 & 63). The study and original "appropriate and necessary" finding had been concluded in 2000. *See* EPA Notice, 65 Fed. Reg. 79825 (Dec. 20, 2000).

96. *Michigan*, 576 U.S. at 760.

97. *Id.* at 749–50. In this case, EPA found that it could not quantify much of the direct benefits from limiting mercury emissions; however, EPA estimated $37–90 billion per year in co-benefits from the rule, largely due to the significant public health benefits from a reduction in particulate matter (PM) emitted by coal-fired power plants when hazardous air pollutants are regulated (even though PM is not itself a pollutant targeted by the regulation). *Id.*; *see* EPA National Emission Standards for Hazardous Air Pollutants 77 Fed. Reg. 9304, 9306 tbl.2 (summarizing the monetized benefits and costs, including co-benefits).

98. EPA, National Emission Standards for Hazardous Air Pollutants, 85 Fed. Reg. 31286 (May 22, 2020) (to be codified at 40 C.F.R. pt. 63). EPA's website chronicles the various back-and-forth stages of the rule, before and after the *Michigan v. EPA* decision. *Mercury and Air Toxics Standards*, U.S. ENV'T PROT. AGENCY, https://www.epa.gov/stationary-sources-air-pollution/mercury-and-air-toxics-standards [https://perma.cc/VN4L-ZYFC] (last visited June 27, 2022).

99. EPA, *supra* note 98, at 31299 ("In these circumstances, to give equal weight to the monetized PM2.5 co-benefits would permit those benefits to become the driver of the regulatory determination").

pro-regulatory administration, is too malleable.[100] The Trump administration's approach thus brings the cost-benefit discussion around regulation full-circle: Although deregulatory advocates had initially pushed for it, they no longer see it as a reliable device to advance deregulatory goals. Thus, the history of regulatory impact analysis illustrates how and why advocates and courts now need to examine underlying data and assumptions in order to determine whether they accurately reflect the range of benefits and the situation on the ground—as illustrated in the WOTUS Rule, described *infra* Part III.

In addition, Congress' failure to update statutes in the past several decades means that, as a practical matter, agencies must use old statutes to address not only old problems but also new ones.[101] Thus, whether we should expect and encourage agencies to use old statutes to craft flexible regulation (for example, regulating air pollution emissions while considering the narrower benefits of reducing conventional pollutants, along with the co-benefits of addressing climate change) as a response to a stalled Congress has become part of the overall battle as to the legitimacy of administrative action in the present era.[102] Making policy judgments based on a constrained view of agency authority also has the effect of downplaying the significance of economics and science in supporting administrative decisions.

On the other hand, advocates of stricter environmental regulation remain skeptical of cost-benefit analysis as a regulatory tool because it does not adequately incorporate those benefits that cannot be easily quantified.[103] Further, the executive orders since the 1980s, as well as OMB Circular A-4, look to the aggregate costs and benefits of agency decision-making for society as a whole, which can obscure the burdens and benefits of policymaking for different populations across

100. The Trump EPA's resistance to letting co-benefits "become the driver" of the regulatory process is a transparent expression of skepticism about whether the entire cost-benefit analysis process legitimizes agency action. *See id.*

101. *See e.g.,* Jody Freeman and David B. Spence, *Old Statutes, New Problems,* 163 PA. L. REV. 1 (2014).

102. This is the core of the Supreme Court's recent push to revive the non-delegation doctrine and strengthen the major questions doctrine, rejecting any agency action based on existing statutory authority that might seem 'surprising' or novel. *See* Lisa Heinzerling, *Perspective: Climate Change in the Supreme Court*, 386 NEW ENGLAND J. MED. 2255 (June 16, 2022) (noting, for example, that "during oral arguments in West Virginia v. EPA, Chief Justice John Roberts suggested that a judge applying the major questions idea to an agency decision should ask whether it is "surprising" that the agency made that decision").

103. *See, e.g.*, Sinden, *supra* note 71 (arguing that President Obama's policy for regulatory impact analysis paid "lip-service to the difficulties of quantification" but continued a longer-term trend of focusing on costs and benefits that are easily monetized).

geographic differences, economic class, race, gender, and other categories.[104] Aggregation without attention to the distributive impacts of regulation leads inevitably to disproportionate socioeconomic impacts. The Executive Order on Environmental Justice promulgated by President Clinton ostensibly addresses this issue for minority and low-income populations,[105] but with limited impact; President Biden's memorandum in January 2021 calls particular attention to this issue in asking for review of the regulatory process.[106] The extent to which policy on this point will change in practice remains to be seen.[107]

### C. Regulation in an Era of Complexity

The rise of cost-benefit analysis means that every 'significant' informal rulemaking will include the agency's supporting data and analysis of economic impacts and benefits, along with any other data required by statutes' substantive requirements (such as jeopardy determinations under the Endangered Species Act).[108] Regulatory impact analysis becomes part of a rulemaking framework that administrative law scholars will recognize from the Federal Register: legal authority, comments and other evidence, and agency responses to these comments and data.[109]

With this legal scaffolding, legal challenges to agency action based on the APA's standard of review have followed a set pattern—claims that (a) statutes don't provide legal authority or are incorrectly interpreted ("contrary to law"), and/or (b) not all data and comments are appropriately considered ("arbitrary and capricious").[110] One key advantage for challengers in this process is that cost-benefit analysis, scientific data, and other information collected by agencies is

104. *See, e.g.*, Stuart Shapiro, *Regulatory Analysis Needs to Catch Up on Distribution*, REGUL. REV. (Feb. 15, 2021), https://www.theregreview.org/2021/02/15/shapiro-regulatory-analysis-needs-distribution/ [https://perma.cc/VAS4-9S94].

105. Exec. Order No. 12898, 59 C.F.R. 7629 (1994).

106. Presidential Memorandum, Modernizing Regulatory Review, 86 Fed. Reg. 7223 (Jan. 26, 2021).

107. *See* Regul. Rev., *supra* note 89.

108. 16 U.S.C. § 1536(a)-(b).

109. The APA requires agencies to include a "concise general statement of [the rule's] basis and purpose" along with the publication of a final rule. 5 U.S.C. § 553(c). Final rules are published in the Federal Register, but agencies may also refer to technical appendices and other documents that are part of the official decision making record.

110. Victor Flatt et al., *Let the People Speak: Notice and Comment Rulemaking (Lessons from the Controversial New Source Review Proposal of the Clean Air Act)*, 34 ENV'T. L. REP. 10115 (2004).

available to provide a window into the agencies' decision-making, with potential insight into the assumptions and calculations upon which regulations are based.

However, raw "under the hood" data (economic or scientific data) may not make it into the official Federal Register notice, but instead may be buried in appendices and technical supplements—less visible, yet part of the full record of agency decision-making that can be considered in judicial review. This data is less likely to be used because legal challenges typically only cover the information that is front and center in the Federal Register notices, based on the agency's stated reasoning and information mandated by applicable statutory requirements.[111]

This limited approach—looking at the surface of agencies' scientific data and regulatory impact analysis—is deficient, as appears with the Navigable Waters Protection Rule (NWPR). But agencies themselves often make it more difficult—if not impossible—to effectively examine the data.

By creating a way to more adequately access this data, agencies would provide administrative lawyers and regulatory advocates better oversight of the rulemaking process, ensuring that agencies' decisions are rooted in reasonable assumptions and rational application of the evidence before them. This suggests changes to how such information should be presented in rulemaking.

## III. CASE STUDY: THE TRUMP ADMINISTRATION AND THE NAVIGABLE WATERS PROTECTION RULE (NWPR)

A recent series of rulemakings defining the jurisdiction of Waters of the United States (WOTUS) in the Trump administration provides an important case study in the importance of underlying scientific and economic data in Section 553 rulemaking processes.

### A. History of "Waters of the United States"

In 1972, Congress enacted the Clean Water Act,[112] with the goal of "restor[ing] and maintain[ing] the chemical, physical, and biological

111. Examples of decisions including more specific scientific data in the Federal Register publications include Endangered Species Act listing determinations. *See, e.g.*, the National Marine Fisheries Service's proposed listing of the Chambered Nautilus as threatened under the Endangered Species Act, 82 Fed. Reg. 48,948 (proposed Oct. 23, 2017).

112. Federal Water Pollution Control Act Amendments of 1972, as amended, *codified at* 33 U.S.C. § 1251 *et seq.*

integrity of the Nation's waters."[113] The statute requires a permit in order to discharge any "pollutant"[114] into "navigable waters," which the Act further defines as "the waters of the United States, including the territorial seas."[115]

The statute does not itself define WOTUS further and the definition of the term was left to regulation by EPA and the Army Corps, both of which have jurisdiction over parts of the Clean Water Act.[116] The Army Corps initially construed WOTUS as being limited to the prior jurisdictional reach of navigable waters, but this construction was successfully challenged in *Natural Resources Defense Council v. Callaway*.[117] As the Court wrote:

> Congress, by defining the term "navigable waters" . . . to mean "the waters of the United States, including the territorial seas" asserted federal jurisdiction over the nation's waters to the maximum extent permissible under the commerce clause; as used in the Water Act, the term is not limited to the traditional test of navigability.[118]

Since 1975 until the present, exactly which "waters" Congress intended to include under the term "the waters of the United States" in the Clean Water Act has been the subject of disagreements, administrative actions, and court cases. As stated by Justice Sotomayor, "[i]n decades past, the EPA and the Corps (collectively, the agencies) have struggled to define and apply that statutory term. And this Court, in turn, has considered those regulatory efforts on several occasions . . . ."[119]

Challenges to the scope of the statutory and regulatory definitions have come before the Supreme Court many times in the last four decades, requiring the Court to attempt to spell out exactly what "waters of the United States" includes. As the focus of statutory interpretation evolved in these cases over the years, it became clear that the scope of WOTUS could be influenced by scientific and economic data.

113. 33 U.S.C. § 1251(a).

114. The term is defined broadly in the statute to include "dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water." *Id.* § 1362(6).

115. *Id.* § 1362(7).

116. *See, e.g.*, 33 U.S.C. § 1344 (delegating authority to both the EPA Administrator and the Army Corps, through the Secretary of the Army).

117. NRDC v. Callaway, 392 F. Supp. 685 (D.D.C. 1975).

118. *Id.* at 685.

119. Nat'l Ass'n of Mfrs. v. Dep't of Def., 138 S. Ct. 617, 625 (2018) (citations omitted).

The most recent Supreme Court case concerning WOTUS jurisdiction, *Rapanos v. United States*,[120] overturned a jurisdictional determination by the Army Corps. *Rapanos* was a fractured decision, whose holding was itself in dispute for a time.[121] The *Rapanos* plurality opinion limited the "waters of the United States" to "only those relatively permanent, standing, or continuously flowing bodies of water 'forming geographic features' that are described in ordinary parlance as 'streams[,] . . . oceans, rivers, and lakes.'"[122]

However, in his concurring opinion, Justice Kennedy rejected the plurality's test and instead focused on whether or not a "water" has a "significant nexus" with a navigable water.[123] This was not the first time the term "significant nexus" had been used in these cases. Six years earlier, in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*,[124] Justice Rehnquist had stated that "it was the *significant nexus* between the wetlands and 'navigable waters' that informed our reading of the CWA."[125]

Based on the Kennedy *Rapanos* concurrence, EPA and the Army Corps issued guidance in late 2008 asserting that the "significant nexus" standard would be the "controlling" standard to make jurisdictional determinations.[126] The factual question of when a "significant nexus" exists (and the data that supports that determination) thus became critical to jurisdictional determination.

The Obama administration sought to finalize an updated regulatory definition through Section 553 notice and comment rulemaking. In June 2015, EPA and the Army Corps published the final Clean Water Rule: Definition of Waters of the United States (CWR Rule).[127] Asserting that it was enshrining the "significant nexus" standard, the rulemaking attempted to standardize the characteristics of water body inter-connections and effects, to determine whether those water bodies would be subject to CWA regulations, with a particular focus on those waters subject to the case-by-case analysis that had

120. 547 U.S. 715 (2006).

121. Precon Dev. Corp. v. U.S. Army Corps of Eng'rs, 633 F.3d 278, 288–89 (4th Cir. 2011) (stating that Kennedy test "undisputedly controls" and reserving question of whether jurisdiction may be established under plurality's standard as well).

122. *Rapanos*, 547 U.S. at 739.

123. *Id.* at 779 (Kennedy, J., concurring).

124. 531 U.S. 159 (2001).

125. *Id.* at 167 (emphasis added).

126. U.S. ENV'T PROT. AGENCY, CLEAN WATER ACT JURISDICTION FOLLOWING THE U.S. SUPREME COURT'S DECISION IN RAPANOS V. UNITED STATES & CARABELL V. UNITED STATES (2008).

127. Clean Water Rule: Definition of Waters of the United States, 80 Fed. Reg. 37054 (June 29, 2015).

previously given rise to the litigation over these issues, including small headwaters, "isolated" wetlands, and ephemeral and intermittent streams.[128]

The Clean Water Rule was challenged immediately in multiple courts, initially with disagreement over whether original jurisdiction lay in the federal courts of appeals or the federal district courts.[129] This issue was ultimately resolved in favor of the district courts.[130] The rule was then stayed in many states, which reverted the jurisdictional standard to the previous 2008 guidance.[131]

### B. Navigable Waters Protection Rule

By Executive Order 13,778 in February 2017, the Trump administration announced a planned repeal of the stayed 2015 CWR rule.[132] Subsequent to the executive order, EPA and the Army Corps published an "Intention to Review and Rescind or Revise the Clean Water Rule."[133] The agencies issued an advance notice of proposed rulemaking in July 2017,[134] followed by a supplemental notice seeking additional comment in July 2018.[135]

EPA and the Army Corps then issued a proposed rulemaking to replace the CWR rule with one significantly altering jurisdictional determination for WOTUS. This rule was finalized as the Navigable Waters Protection Rule (NWPR) in April 2020, with an effective date of June 20, 2020.[136] The NWPR established a significantly narrower definition of WOTUS, based on President Trump's direction that the

128. *Id.* at 37057.

129. *Nat'l Ass'n of Mfrs.*, 138 S. Ct. at 634.

130. *Id.*

131. *See, e.g.*, Georgia v. Pruitt, 326 F. Supp. 3d 1356, 1360 (S.D. Ga. 2018); Texas v. EPA, 389 F. Supp. 3d 497, 499 (S.D. Tex. 2019).

132. Exec. Order 13,778 § 2, 82 Fed. Reg. 12497 (Mar. 3, 2017) (revoked by Exec. Order 13990, 86 Fed. Reg. 7037 (Jan. 25, 2021)).

133. Intention To Review and Rescind or Revise the Clean Water Rule, 82 Fed. Reg. 12,532 (proposed Mar. 6, 2017) (to be codified at 40 C.F.R. pt. 401).

134. Definition of "Waters of the United States"—Recodification of Pre-Existing Rules, 82 Fed. Reg. 34,899 (proposed July 27, 2017) (to be codified at 40 C.F.R. pt. 401).

135. Definition of "Waters of the United States"—Recodification of Preexisting Rule, 83 Fed. Reg. 32,227 (proposed July 12, 2018) (to be codified at 40 C.F.R. pt. 401).

136. 40 C.F.R. § 401.11(l) (2020). In addition to the two-step repeal and replace plan, the Trump administration engaged in a third rulemaking process designed to suspend the Clean Water Rule until February 2020. While the Clean Water Rule stated that it was effective as of August 28, 2015, EPA and the Corps published a separate final rule (Applicability Date Rule), which added a new "applicability date" of February 6, 2020, to the Clean Water Rule. 33 C.F.R. § 328.3 (2018).

agencies consider Justice Scalia's opinion from *Rapanos*.[137] The definition accomplishes this by limiting the scope of what is considered an "adjacent wetland," rejecting the Obama-era definition's inclusion of wetlands with a "significant nexus" to other jurisdictional waters.[138]

Several legal challenges were filed against the NWPR,[139] but the rule went into effect nationally while those cases were pending.[140] One of the challenges succeeded in overturning the rule in 2021.[141] The Biden administration has indicated an intent to again define WOTUS administratively,[142] and the Supreme Court has also heard oral argument on another WOTUS case in its 2022–23 term.[143]

### C. The Legal Challenges to NWPR

The legal challenges to the Trump NWPR focused on both whether the rulemaking is consistent with statutory requirements of the Clean Water Act,[144] and on administrative procedure, arguing that the Trump administration failed to follow appropriate procedure and that the repeal and replacement was "arbitrary and capricious."[145] As noted above, "arbitrary and capricious" may cover many potential administrative failures, including the failure to find and/or consider evidence or comments, relying on impermissible reasons for undergoing an administrative action, and making a decision that "runs counter to the evidence before the agency."[146]

137. NWPR, 85 Fed. Reg. 22,250 (codified at 40 C.F.R. pt. 401.11); Exec. Order 13,778 § 3, 82 Fed. Reg. 12497 (Mar. 3, 2017).

138. *Compare* NWPR, 85 Fed. Reg. at 22258 (describing the "significant nexus" portion of the 2015 Rule) (codified at 40 C.F.R. 401.11) *with* 33 C.F.R. § 328.3(c)(1) (2020) (Trump NWPR definition).

139. *See e.g.*, California v. EPA, No. 3:20-cv-03005-RS (N.D. Cal. June 19, 2020).

140. Colorado v. EPA, No. 20-1238, at *5 (10th Cir. Mar. 2, 2021).

141. *See* Pascua Yaqui Tribe v. EPA, 557 F. Supp. 3d 949, 951 (D. Ariz. 2021).

142. Revised Definition of "Waters of the United States," 86 Fed. Reg. 69,372 (proposed Dec. 7, 2021) (to be codified at 40 C.F.R. pt. 120).

143. Amy Howe, *Justices Take up Cases on Power of District Courts and Regulation of Wetlands*, SCOTUSBLOG (Jan. 24, 2022), https://www.scotusblog.com/2022/01/justices-take-up-cases-on-power-of-district-courts-and-regulation-of-wetlands/ [https://perma.cc/9JRC-2KCH] (referring to the Court's grant of certiorari in *Sackett v. EPA*).

144. Complaint at 16, Conservation Law Found. v. EPA, No. 20-cv-10820 (D. Mass. Apr. 29, 2020); Complaint at 4, Puget Soundkeeper All. v. EPA, No. 20-cv-950 (W.D. Wash. June 22, 2020).

145. Complaint at 14, *Conservation L. Found.*, No. 20-cv-10820. *See* Complaint at 5–6, *Puget Soundkeeper All.*, No. 20-cv-950; S.C. Coastal Conservation League v. Wheeler, Complaint, No. 19-cv-03006 (D.S.C. Oct. 10, 2019).

146. Motor Vehicles Mfrs. Ass'n v. State Farm, 463 U.S. 29, 43 (1983). *See supra* Part II(A).

In the initial three legal complaints filed challenging the Trump NWPR, there are numerous overlapping claims alleging that the rulemaking is arbitrary and capricious.[147] These claims fit into three broad categories. First, the plaintiffs argued that the rulemaking is arbitrary and capricious because it is "contrary to the entirety of the record."[148] For instance, the Conservation Law Foundation claimed that "the Agencies do not give a reasoned explanation for disregarding findings and undisputed facts that underlay a prior policy."[149] Secondly, the complaints note that the Agencies did not explain the change in their position, which conflicts with record evidence.[150] As specified in the Puget Soundkeeper complaint, the rulemaking "reverses findings the Agencies made" in prior rules.[151]

The third major arbitrary and capricious category in these first three complaints concerns ignoring expert opinion. The Agencies allegedly failed to consider the Science Report, the comments of the Science Advisory Board, or scientific issues raised by the general public, all of which allegedly supported a broader and more scientifically rooted definition than that offered by the NWPR.[152] "The Navigable Waters Rule is contrary to the Agencies' own scientific analysis, and the Agencies did not offer a rational explanation for this contradiction."[153] While particular deference should be offered to agencies in considering highly technical matters,[154] this is when the agency relies on the technical analysis rather than ignores it.[155]

As stated in the Puget Soundkeeper complaint: "[T]he Agencies failed to assess, consider and explain the effects on the physical, chemical, or biological integrity of the Nation's waters or the extent to

147. The first three filed complaints were: Puget Soundkeeper All. v. EPA, No. 2:20-cv-950 (W.D. Wash. June 22, 2020); Conservation L. Found. v. EPA, No. 20-cv-10820 (D. Mass. April 29, 2020); and S.C. Coastal Conservation League v. Wheeler, No. 2:20-cv-01687-DCN (D.S.C. April 29, 2020).

148. Complaint at 24, *Puget Soundkeeper All.*, No. 2:20-cv-950.

149. Complaint at 46, *Conservation L. Found.*, No. 20-cv-10820.

150. Complaint at 24, *Puget Soundkeeper All.*, No. 2:20-cv-950; Complaint at 64, *S.C. Coastal Conservation League*, No. 2:20-cv-01687.

151. Complaint at 24, *Puget Soundkeeper All.*, No. 2:20-cv-950.

152. *Id.*; Complaint at 47, *Conservation L. Found.*, No. 20-cv-10820; Complaint at 65, *S.C. Coastal Conservation League*, No. 2:20-cv-01687.

153. Complaint at 24, *Puget Soundkeeper All*., No. 2:20-cv-950.

154. Aluminum Co, of America v. Central Lincoln Peoples' Util. District, 467 U.S. 380, 389 (1984).

155. *But see* Victor B. Flatt, *OSHA Regulation of Low Exposure Carcinogens: A New Approach to Judicial Analysis of Scientific Evidence*, 14 UNIV. OF P.S. LAW. REV. 283 (1991) (noting how the Supreme Court in *Benzene* required difficult evidentiary standards that the best scientific evidence could not produce).

which waters will lose Clean Water Act protections."[156] As a more specific example, according to both the Puget Soundkeeper and the South Carolina Coastal Conservation League, the rulemaking is arbitrary and capricious because it bases the rule on the "typical year" test, which examines the permanence of surface flow without considering the effects climate change would have on said surface flow.[157]

These initial three complaints to the Trump NWPR demonstrate that it is unusual for a legal challenge to go "under the hood," to argue an agency action was arbitrary and capricious because false or misleading data has corrupted the underlying economic or scientific studies. An agency should be able to reasonably rely on raw data being correct, even if a challenger disagrees with the interpretation. The South Carolina Coastal Conservation League's complaint does mention the agencies' possible mischaracterization of state laws, arguing that states:

> do not have comparable programs; cannot adopt laws more stringent than federal standards; do not have adequate staffing to implement more robust programs; and failed in every vital aspect to protect national water quality when . . . states were in charge of regulating water pollution.[158]

But even this complaint does not quantify or specify these state errors. As in all rulemakings, the NWPR noted its own cost-benefit analysis suggested that this repeal would be beneficial overall (and thus not arbitrary and capricious) based on a data set of state laws the agency created. It turns out a deep dive into the NWPR's regulatory impact analysis yields some very strong additional legal challenges, unearthing mistaken assumptions and misleading data that are rotting beneath the rule—important concerns that could otherwise go unexamined.

### D. The Economic Analyses Supporting the Inter-related Rulemakings

Four economic analyses (EAs) are associated with the NWPR rulemaking process—one each for the 2015 final rule,[159] the 2017

156. *Id.* at 25.

157. *Id.*; Complaint at 68, *S.C. Coastal Conservation League*, No. 2:20-cv-01687.

158. Complaint at 67, *S.C. Coastal Conservation League*, No. 2:20-cv-01687.

159. U.S. Env't Prot. Agency & U.S. Army Corps of Eng'rs, Economic Analysis of the EPA-Army Clean Water Rule (2015).

repeal proposal,[160] the 2017 repeal final rule,[161] and the 2019 replacement proposed rule.[162] Estimated benefits and costs of these rules (or foregone benefits and costs in the case of repeal) vary widely, especially on the benefits side.

But the three Trump administration economic analyses generally concluded that the rule change would create a "net positive" benefit, even though federal jurisdiction would be lost. This is primarily related to two key assumptions: that many states would take up regulation of newly non-jurisdictional waters (meaning that, in the agencies' analysis, there would be no change in water quality and therefore no change in associated benefits), and that such state jurisdiction is inherently better at regulating "local goods" than federal jurisdiction.[163]

According to a report prepared by a team of economists and law professors (including one of this article's authors) for the External Environmental Economics Advisory Council, both of these assumptions are flawed. In pertinent part, the E-EEAC report notes that:

> The EAs for the Clean Water Rule repeal and its replacement, the Navigable Waters Protection Rule, both assert that ". . . states may be in a better position than the federal government to regulate local environmental public goods (e.g., water quality)," but the best available research in science and economics contradicts this statement. . . . The science suggests that the affected waters are connected to downstream waters, and many state borders are arbitrary with respect to hydrological features such as watershed boundaries (for example, the three case-study watersheds analyzed in the EAs all cross multiple state lines). Under these conditions, the narrowing of CWA jurisdiction will

160. U.S. ENV'T PROT. AGENCY & U.S. ARMY CORPS OF ENG'RS, ECONOMIC ANALYSIS FOR THE PROPOSED DEFINITION OF "WATERS OF THE UNITED STATES" – RECODIFICATION OF PRE-EXISTING RULES (2017).

161. U.S. ENV'T PROT. AGENCY & U.S. ARMY CORPS OF ENG'RS, ECONOMIC ANALYSIS FOR THE FINAL RULE: DEFINITION OF "WATERS OF THE UNITED STATES" – RECODIFICATION OF PRE-EXISTING RULES (2019).

162. U.S. ENV'T PROT. AGENCY & U.S. ARMY CORPS OF ENG'RS, ECONOMIC ANALYSIS FOR THE NAVIGABLE WATERS PROTECTION RULE: DEFINITION OF "WATERS OF THE UNITED STATES" (2020). As noted above, the 2017 repeal proposal was never finalized via publication in the *Federal Register*. In the meantime, the Trump administration in February 2018 set a two-year delay for the original 2015 rule, which would have made it applicable in February 2020, presumably buying time to develop its new proposal. This delay was also litigated, and federal courts determined that EPA and the Corps had violated the Administrative Procedure Act in the delay proposal. Until the 2019 final rule was published in the *Federal Register*, the 2015 WOTUS rule was stayed in some states, and remained in place in others. *See supra* notes 127–138 and accompanying text.

163. DAVID A. KEISER ET AL., REPORT ON THE REPEAL OF THE CLEAN WATER RULE AND ITS REPLACEMENT WITH THE NAVIGABLE WATERS PROTECTION RULE TO DEFINE WATERS OF THE UNITED STATES (WOTUS) 5 (2020) (E-EEAC Report).

> likely result in transboundary pollution. *The basic theory of efficient regulatory decentralization assumes that there is no transboundary pollution, and the empirical literature in economics suggests that in the presence of such externalities, water quality is likely to decrease.*[164]

In addition, the probability of the states taking up federal jurisdiction was also found to be problematic based on past behavior. As noted by the E-EEAC:

> The prediction that dozens of states will assume jurisdiction over the waters newly removed from federal CWA jurisdiction is inconsistent with states' prior behavior, as well as EPA's Guidelines. For example, in 2001, a Supreme Court decision removed federal protection from a large share of U.S. wetlands when it overturned the Migratory Bird Rule; in response, only a few states moved to expand their own jurisdiction over some of the affected waters over the following two decades.[165]

Of particular interest to legal analysts, the economic analyses that assume that state regulation can act as a substitute for federal jurisdiction rest on legal interpretations of specific state statutes and regulations. For example, do state laws allow (much less require) state agencies to adopt more stringent environmental requirements than those found in federal law and regulations?[166] While this should be relatively straightforward, the economic analyses' conclusions on this issue fail in actually correctly applying legal analysis to the facts. Thus, the economic analyses misinterpret and mischaracterize the relevant state laws. Though not featured in the Federal Register rulemaking text itself, this analytical flaw would be clear to Clean Water Act experts, and this failure in turn leads to flaws in the entire economic analysis and thus in the rulemaking itself.

### E. Flaws in NWPR Economic Analysis' Discussion of State Laws

State legal jurisdiction is addressed in three different documents that must be read together to determine how the Final Rule's

164. *Id.* (emphasis added).

165. *Id.* at 6.

166. This phenomenon of state legislatures codifying federal law as a regulatory "ceiling"—prohibiting state agencies from adopting more stringent restrictions—dates back all the way to 1975, in the early days of the major federal statutes. *See* Jerome M. Organ, *Limitations on State Agency Authority to Adopt Environmental Standards More Stringent than Federal Standards: Policy Considerations and Interpretive Problems*, 54 MD. L. REV. 1373, 1376 (1995) (discussing Florida's adoption of a statutory constraint in 1975 and the enactment of either general or sector-specific statutory constraints in 19 states between 1987 and 1994 alone). In 2013, the Environmental Law Institute published a fifty-state study of such restrictions. ENV'T L. INST., STATE CONSTRAINTS: STATE-IMPOSED LIMITATIONS ON THE AUTHORITY OF AGENCIES TO REGULATE WATERS BEYOND THE SCOPE OF THE FEDERAL CLEAN WATER ACT (2013).

Economic Analysis characterizes state legal authority under the CWA. These include the Final Rule's Economic Analysis; the Resource and Programmatic Assessment for the Navigable Waters Protection Rule: Definition of the "Waters of the United States;" and Appendix A to the Resource and Programmatic Assessment.[167] Unfortunately, there is little common definition among the three sources, but when one can find and compare the data, the flaws become clear.[168]

In exploring the likelihood of the states and tribes asserting jurisdiction over waters that would no longer be classified as WOTUS, the Final Rule's Economic Analysis divides the states into three categories: 1) states that will assert state jurisdiction to maintain an equivalent regulatory control of Obama-era WOTUS, 2) states that will do nothing, and 3) states that may take some regulatory action, but action that would not fully replace the environmental protections consistent with federal jurisdiction under the CWA.[169]

This prediction of state action in the Final Rule's Economic Analysis is ostensibly related to two particular questions: whether a state currently regulates any intrastate waters beyond its regulation of federal waters, and whether state law or regulation restricts regulation of waters outside of WOTUS.[170] The Final Rule's Economic Analysis particularly notes that "effective [replacement] regulation . . . requires the political capital and fiscal resources to do so."[171]

As source material, the Economic Analysis looks not only at individual state laws and regulations, but also at interpretation of these by third-party institutions and state agency web postings.[172]

167. U.S. ENV'T PROT. AGENCY & U.S. DEP'T OF THE ARMY, ECONOMIC ANALYSIS FOR THE NAVIGABLE WATERS PROTECTION RULE: DEFINITION OF "WATERS OF THE UNITED STATES" 28–47 (2020) ("Final Rule Economic Analysis"); U.S. ENV'T PROT. AGENCY & U.S. DEP'T OF THE ARMY, RESOURCE AND PROGRAMMATIC ASSESSMENT FOR THE NAVIGABLE WATERS PROTECTION RULE: DEFINITION OF "WATERS OF THE UNITED STATES" 42–50 (2020) ("RESOURCE AND PROGRAMMATIC ASSESSMENT"); U.S. ENV'T PROT. AGENCY & U.S. DEP'T OF THE ARMY, APPENDICES TO THE RESOURCE AND PROGRAMMATIC ASSESSMENT FOR THE NAVIGABLE WATERS PROTECTION RULE: DEFINITION OF "WATERS OF THE UNITED STATES" 1–88 (2020).

168. The Final Rule's Economic Analysis and the Resource and Programmatic Assessment refer to numbers of states that are in certain overlapping categories of jurisdiction without naming the specific states, and the state-by-state review of laws and regulations in Appendix A do not define how those laws and regulations might be related to these categories, undermining the use of the categorical "state numbers" in the Final Rule's Economic Analysis and the Resource and Programmatic Assessment. The Final Rule's Economic Analysis creates a state graphic using categories about current regulation and regulatory authority, some of which can be compared to the specific law and regulations in Appendix A of that analysis.

169. FINAL RULE ECONOMIC ANALYSIS, *supra* note 167, at 33–34.

170. *Id.*

171. *Id.* at 35.

172. *Id.* at 36.

This is particularly notable since some of the information outside of specific laws and regulations includes surveys of possible future actions.[173] Named "snapshots," the categorizations are posted in Appendix A of the Final Rule's Resource and Programmatic Assessment for the Proposed Revised Definition of the "Waters of the United States."[174]

Using this taxonomy, the Final Rule's Economic Analysis considers different levels of estimated costs and benefits from the reduction of federal jurisdiction on surface waters and wetlands (i.e., reduction in costs associated with less regulation, as well as reduction in benefits from a decrease in environmental protection). This cost-benefit analysis is, of course, dependent on the agencies' ability to make an accurate determination as to the category of each state's legal authority and likely action. That determination is in turn dependent on two agency conclusions that were ultimately based on a chain of flawed assumptions. First, for purposes of this categorization, the agencies undertook to define whether a state has a "broad" legal limitation on regulation beyond federal CWA jurisdiction; and second, the agencies estimated costs and benefits based on their conclusion as to whether or not those states *without* "broad" legal limitations (that currently do not regulate beyond federal jurisdiction) would actually take action to assert increased regulatory authority after implementation of the new, reduced WOTUS jurisdiction.

The possible outcomes that are drawn from these categorizations about whether certain states will take over regulation of previously designated WOTUS are flawed in two ways. The assumption that some states currently not prohibited from expanding jurisdiction will do so is not supported by evidence or economic theory. Additionally, a close examination of the assumptions in the Economic Analysis and

173. *Id.* at 36 n.41; *see also* RESOURCE AND PROGRAMMATIC ASSESSMENT, *supra* note 167, at 43 ("The summarized information does not change or substitute for legal requirements").

174. Looking at the scope of authority under Section 404 within states, the Final Rule's Economic Analysis ("FREA") specifically places each of the states into three categories: states that have "broad" legal limitations on regulation of aquatic resources or does not have a state level dredge and fill program; states that have a state level dredge and fill program that does not regulate beyond current federal WOTUS jurisdiction but is not prohibited by law from doing so; and

states that have a state level dredge and fill program AND regulates "waters of the state" beyond federal CWA jurisdiction. The FREA then posits the state's potential response for the WOTUS final rule as respectively: "unlikely to increase state regulatory practices," "likely to continue state program and may choose to provide increased state coverage", and "likely to continue program that already regulates beyond CWA current jurisdiction." FINAL RULE ECONOMIC ANALYSIS, *supra* note 167, tbl.II-1.

its supporting Resource and Programmatic Assessment compared to the list of specific state laws and regulations indicates that some of the categorizations themselves are incorrect, including the identification of states currently regulating surface waters, what constitutes a "broad" legal limitation against stricter-than-federal regulation, and even statutory legal mischaracterization.

For example, the Final Rule's Economic Analysis for Section 404 permits names twenty-four states as "regulating waters more broadly than the CWA requires,"[175] even though a report from the Environmental Law Institute (ELI) with a fifty-state survey of relevant legislation indicates that most of these states are also subject to restrictions that would keep them from regulating beyond federal jurisdiction.[176] Further problems are set out in an Appendix to this Article.[177] The upshot of these mistaken understandings of state authority is that the cost-benefit analysis in the NWPR fails to consider the economic value of wetlands conservation in areas where wetlands are likely to be lost.

In summary, when factoring in multiple analyses and cross-references, it becomes clear that the NWPR's claim of a positive net benefit is false. Presented in the Federal Register notice as undisputed data, it turns out that the rulemaking, like the storied emperor, has no clothes.[178]

## IV. CONCLUSION: PRESIDENTIAL GUIDANCE AND REFORMING REGULATORY IMPACT ANALYSIS

This NWPR case study demonstrates that close scrutiny of the data supporting agencies' regulatory impact analysis is critical to really understand what is occurring in our administrative state. For over forty years, Presidents—both Democratic and Republican—have required that all major administrative actions undergo a reasoned analysis of their costs and benefits. While there have been objections to this process, almost all agree that at least in theory, regulatory decisions should be made such that the benefits to society outweigh the costs.

175. FINAL RULE ECONOMIC ANALYSIS, *supra* note 167, tbl.II-2 at 40–41.

176. Env't L. Inst., *supra* note 166.

177. *See infra* App.: Examples of Data Problems in the NWPR's Supporting Documents.

178. *Cf.* Hans Christian Andersen, *The Emperor's New Clothes*, H.C. ANDERSEN CENTRET (Jean Hersholt trans., 1949) (1837), https://andersen.sdu.dk/vaerk/hersholt/TheEmperorsNewClothes_e.html [https://perma.cc/X5BT-WHZB].

Unfortunately, this requirement, much like other procedural analyses required of agencies (such as the Paperwork Reduction Act) is often relegated to the fringes of the rulemaking process. Although the bottom-line numbers from cost-benefit analysis will appear in public-facing Federal Register notices, the assumptions behind those number-crunching efforts are rarely front and center. Agency decisions about how to conduct regulatory impact analysis—including what data to gather and how to make sense of it—are made in relative obscurity.

Determining where potential vulnerabilities in a rulemaking may lie under the arbitrary and capricious test is essential both for challengers in litigation that oppose agency decisions as well as for the agency attorneys defending those decisions. Without taking a closer look at the raw data and the choices made in analyzing that data, it can be difficult for administrative lawyers to find the types of errors like those illustrated in the NWPR, such as reliance on faulty legal assumptions in making economic cost-benefit calculations. The problem is likely not limited to the Trump administration's regulatory rollbacks, but without the ability to easily assess agencies' supporting studies, we cannot know.

What should be done? President Biden's January 2021 memorandum includes, notably, the call to "identify reforms that will promote the efficiency, transparency, and inclusiveness of the interagency review process, and determine an appropriate approach for the review of guidance documents."[179] Government-wide guidelines in OMB Circular A-4 and agency-specific procedures attempt to provide a framework for uniformity in regulatory impact analysis.[180] However, the NWPR process highlights some of the critical gaps in these efforts. In multiple ways, EPA and the Army Corps' Economic Analyses fell short of the Circular's standards for transparency and economic analysis.[181] And yet, with regard to perhaps the most significant error—mischaracterization of state laws that restrict regulatory authority—the Circular and EPA Guidelines themselves fail to provide a standardized oversight method.[182]

We suggest that the President should use their executive authority to require a more transparent process with respect to agency

179. Memorandum from President Joe Biden to Heads of Executive Departments and Agencies, *Modernizing Regulatory Review*, § 2(b)(iv), 86 FED. REG. 7223-4 (Jan. 20, 2021).

180. *See supra* notes 72–77 and accompanying text.

181. *See* E-EEAC Report, *supra* note 163.

182. *See id.* at 26.

regulatory impact analysis requirements—especially when economic analysis will be reliant on contingent questions of federalism, state law, or other legal and policy assumptions. OMB Circular A-4 indicates the following:

> A good analysis is transparent. It should be possible for a qualified third party reading the report to see clearly how you arrived at your estimates and conclusions. For transparency's sake, you should state in your report *what assumptions were used*, such as the time horizon for the analysis and the discount rates applied to future benefits and costs. It is usually necessary to provide a sensitivity analysis to reveal whether, and to what extent, the results of the analysis are sensitive to plausible changes in the main assumptions and numeric inputs.[183]

Nothing in the APA nor most agencies' enabling acts would prevent the President from ordering that data on the *existing and contingent law and policy assumptions* underlying any cost-benefit analysis be put in a uniform format. This could be positioned either as an element in a follow-on executive order that amends the regulatory impact analysis requirement or as part of a reformed successor to OMB Circular A-4.

The Trump administration's NWPR did make cursory mention of the issues of state authority and the potential range of avoided costs and benefits under different scenarios of state replacement regulation.[184] However, administrative law attorneys, when reading the agencies' official explanation of the rule in the Federal Register, would not be able to ascertain the extent of the assumptions made—nor the sensitivity of the cost-benefit analysis and the magnitude of any errors due to mistakes in this assumptions—without taking a deep dive into several technical accompanying documents.

A requirement that any analyses incorporate all data (rather than having multiple references to prior economic analyses) into what is presented in the rulemaking itself would allow for better oversight of regulatory impact analysis and agency cost-benefit estimates. In turn, attorneys who regularly scan and analyze notice and comment rulemaking would be better apprised of the actual decision-making process behind agency actions, and could challenge as appropriate under the APA's arbitrary and capricious standard. Presumably this would also lead to less arbitrary and capricious decision-making as a whole.

183. OMB Circular A-4, *supra* note 74, at 3 (emphasis added).

184. Navigable Water Protection Rule: Definition of the "Waters of the United States," 85 Fed. Reg. 22,334 (Apr. 21, 2020) (to be codified at 33 C.F.R. pt. 328 and 40 C.F.R. pt. 110, 112, 116, 117, 120, 122, 230, 232, 300, 302, 401).

In the case of the NWPR, differing definitions across multiple economic analyses and various supporting documents require a full legal *and* economics team just to understand the intersection of federalism, water ecology, and economics behind the bottom-line cost-benefit estimates about what is being done. Reform should induce the agencies to provide one economic analysis with appropriate definitions and data, explicit in its reliance on assumptions about policy and law, available in one location.

Such transparency should be an unalloyed positive for the goals of efficiency in government. Our administrative state is designed to inform the public and seek their guidance. Rather than asking the public to buy a car based only on its outside appearance—requiring that they hire their own mechanic if they hope to understand what they are getting—let's require every "vehicle" sold by the executive branch to have uniform reporting requirements on what is under the hood. This way we can more easily use administrative law to get rid of the lemons and embrace the good deals.

## APPENDIX: EXAMPLES OF FACTUAL PROBLEMS IN THE NWPR'S SUPPORTING DOCUMENTS

### A. Which States Currently Regulate Surface Waters Which Would Not Meet the 2019 or Pre-2015 WOTUS Definition?[185]

While the Resource and Programmatic Assessment's Appendix A notes whether a state "may" regulate more surface waters than WOTUS (such as "state waters"), it doesn't contain information about whether that particular state does so or not. As a result, the Economic Analysis, along with its Resource and Programmatic Assessment and the Associated Appendix A, does not provide sufficient data to support one of the key data points used to categorize the states: whether a state currently regulates waters beyond federal waters. This means that the Economic Analyses' assumptions about which states might have "broader baseline regulation" than the federal government would thus not be affected (by foregone benefits) with reduction in federal jurisdiction in an economic analysis.[186]

Additionally, in determining whether states regulate beyond federal law, the Resource and Programmatic Analysis notes that many states regulate groundwater,[187] which is generally not subject to jurisdiction under the CWA except in limited circumstances.[188] This supposition relies heavily on some categorizations of states as determined in a detailed 2013 ELI study analyzing state water regulation after federal jurisdiction was potentially limited by the *S.W.A.N.C.C.* and *Rapanos* decisions.[189] The rulemaking does so even as the study itself notes:

> It is vexing to try to determine with precision which states presently [as of 2013] protect waters that are no longer subject to federal regulation

185. The repeal of the WOTUS rule of 2015 was finalized (though litigated) in 2019. Until the finalization and implementation of the proposed WOTUS (2020) this means that the 2019 jurisdictional definition returned to the pre-2015 jurisdictional definition.

186. U.S. ENV'T PROT. AGENCY & U.S. DEP'T OF THE ARMY, ECONOMIC ANALYSIS FOR THE NAVIGABLE WATERS PROTECTION RULE: DEFINITION OF "WATERS OF THE UNITED STATES" 44 (2020) ("[S]tate-level baseline regulations may be broader than the federal requirements. In this case . . . states may simply maintain their broader, baseline regulations.").

187. U.S. ENV'T PROT. AGENCY & DEP'T OF THE ARMY, RESOURCE AND PROGRAMMATIC ASSESSMENT FOR THE NAVIGABLE WATERS PROTECTION RUE: DEFINITION OF THE "WATERS OF THE UNITED STATES" 44–45 (2020).

188. *See generally* Cnty. of Maui v. Haw. Wildlife Fund, 590 U.S. ___(2020), see slip op. at https://earthjustice.org/sites/default/files/files/18-260_5i36_scotus-maui.pdf [https://perma.cc/U6PA-QKTN].

189. Solid Waste Agency of N. Cook Cnty. v. U.S. Army Corps of Eng'rs, 531 U.S. 159 (2001) (S.W.A.N.C.C.); Rapanos v. United States, 547 U.S. 715 (2006).

> (or whose regulation under the federal Clean Water Act has become uncertain), and what those categories of waters are . . . [C]oming up with a definitive, water-by-water answer has proven elusive for various reasons.[190]

Claiming to rely on this ELI report, the Final Rule's Economic Analysis for Section 404 permits names twenty-four states as "regulating waters more broadly than the CWA requires," even though the ELI report clarifies that most of these states also are subject to restrictions which would keep them from regulating beyond federal jurisdiction.[191] According to the ELI report, as of 2013, only eight states that allow their state regulations to be stricter than federal regulations actually do regulate more than the federal CWA (post-*Rapanos*).[192] These include California, Connecticut, Illinois, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont.[193] Even within these states, the ELI report does not indicate the extent of possible "greater" regulation or through what statutory or regulatory mechanism it may have occurred.[194]

### B. What Constitutes "Broad Legal Limitation"?

The economic analyses define a legal limitation as a "state prohibiting by law or requiring additional justification" for imposing

190. Env't L. Inst., State Constraints: State –Imposed Limitations on the Authority of Agencies to Regulate Waters Beyond the Scope of the Federal Clean Water Act 31–32 (2013).

191. U.S. ENV'T PROT. AGENCY & DEP'T OF THE ARMY, ECONOMIC ANALYSIS FOR THE NAVIGABLE WATERS PROTECTION RULE: DEFINITION OF "WATERS OF THE UNITED STATES" 40–41 (2020).

192. In addition to laws, regulations and/or executive orders that could deter states taking on greater regulatory jurisdiction, the ELI study also notes that many states have property restrictions that go beyond federal law in which a state might have to compensate private property owners, affected by regulation, even beyond a Constitutional requirement. While this of course does not prohibit a state from expanding regulatory jurisdiction, it also suggests a deterrence for that to occur. Env't L. Inst., *supra* note 190, at 20–30.

193. *Id.* at 34.

194. *E.g.,* some of the increased regulation is through state action on specific 401 permits, which are *ad hoc* and not systematic regulation. *Id.* at 32. The Final Rule's Economic Analysis references criticism of some of the categorizations in the 2013 ELI report indicating that the agencies' proposal might not be correct in relying on it. Final Rule Economic Analysis, *supra* note 167, at 37. Nonetheless, the Final Rule alters the categories and focus of the ELI report; it seems to rely on its veracity. Criticisms of the report in a comment to the 2015 WOTUS rule, are generally not applicable to the underlying question being asked in the Economic Analysis, i.e., which states would or would not regulate beyond federal jurisdiction if that were to shrink. *See* Waters Advocacy Coalition, Comments on the Environmental Protection Agency's and the U.S. Army Corps of Engineers' Proposed Rule to Define "Waters of the United States" under the Clean Water Act, EPA-HQ-OW-2011-0880 (Nov. 13, 2014), [https://perma.cc/AMF4-Q9VZ].

regulatory requirements beyond federal jurisdiction.[195] The Final Rule's Economic Analysis then uses this definition to determine which states might fit into the "uncertain" to regulate category under the Section 404 program (states that are not prohibited from exceeding federal jurisdiction) or states which are prohibited from regulating more surface waters than determined by WOTUS under the Section 402 NPDES program.[196] This in turn directly feeds into whether or not "foregone benefits" are "unknown" in Figure III-1 (for the Section 402 NPDES program) of the final rule economic analysis, or whether states will be "less protective" of non-WOTUS wetlands in figure III-2 (for the Section 404 wetlands fill program).[197] As noted above, many of these determinations are incorrect.

Although the idea of what constitutes a "legal limitation" might seem clear, the term "broad legal limitation" used in EPA's categorization is not uniformly defined in the various documents. From the figures of the Final Rule's Economic Analysis, it appears that a "broad" legal limitation might only encompass situations in which a state explicitly prohibits exceedance of federal standards generally by statute. If that is the case, as a factor for determining possible future state action, this appears under-representative given federalism theory and what we know of state environmental actions.

### C. Specific Legal Data Mischaracterization

The potential discrepancies between certain state categorizations in the Final Rule's Economic Analysis and the actual laws and regulations of that state as set out in Appendix A of the Programmatic Assessment are numerous, and are described below:

i. In the Economic Analysis, **Colorado** is categorized as "not having broad legal limitations," yet Colorado law states that Colorado cannot regulate return agricultural flow more extensively than under federal law, and the Water Quality Control Commission can only adopt rules more stringent than enforceable federal requirements after a public hearing, finding, and demonstration.[198] This would meet both the standard of a state prohibiting regulation by law directly and also requiring additional justification. While this may not apply to every part of the CWA, it is significant, and under federalism theories would

195. U.S. ENV'T PROT. AGENCY & U.S. DEP'T OF THE ARMY, ECONOMIC ANALYSIS FOR THE NAVIGABLE WATERS PROTECTION RULE: DEFINITION OF "WATERS OF THE UNITED STATES" 39, 42 (2020).

196. *Id.* at 41, 44, 47.

197. *Id.* at 58, 74.

198. Colo. Rev. Stat. §§ 25-8-504, 25-8-104.

suggest that Colorado is not likely to enlarge jurisdiction if it is based on the presence of state limitations.

ii. Though not stated explicitly in the Final Rule's Economic Analysis, it is apparent that the Analysis uses the group of states (twenty-four) identified in the 2013 ELI analysis as regulating "waters more broadly than the CWA requires." As noted above, however, the "waters" in this analysis for many states includes regulation of groundwater or waters in a coastal zone that are inapplicable to the question of whether a state would increase *surface water* regulation under state law in the face of shrinking federal jurisdiction. Moreover, this does not take into account statutory limitations that may limit that expansion. Even where a state may currently regulate waters more broadly than federal regulation (eight are identified in the 2013 ELI study) it is impossible to tell from that study the extent of state regulation or whether the relevant state authority would relate to expanding jurisdiction if federal jurisdiction were to decrease.

iii. In the Economic Analysis, **Florida** is categorized as "not having broad legal limitations." However, Florida law requires that no standards can be set above federal standards unless additional requirements and findings occur, along with a high-level executive branch review.[199] This is mistakenly characterized in Appendix A as "allowing regulations to exceed federal regulations if they are in counterpoise." This comes from a 1978 case in state court examining what kinds of regulatory comparisons can even be sent to the high-level executive committee by review.[200] The language taken from the case is meant to imply that a comparison of whether or not a Florida regulation exceeds a federal one is only possible when the federal and state regulations are comparable. In this case, *counterpoise* refers to situations in which the federal and state laws are subject to exact comparison.[201] The language taken from the case is meant to imply that a comparison of whether or not a Florida regulation exceeds a federal one is only possible when the federal and state regulations are comparable.

iv. While **Connecticut, Hawaii, Idaho, Iowa, Kansas, Massachusetts, New York, Pennsylvania, Tennessee, and Wyoming** all have state dredge and fill programs as indicated in the economic analysis,[202] none of the above states have a "no net loss of wetlands" policy.[203] This means that even if certain wetlands meet state jurisdiction but were not WOTUS, they would not necessarily be protected, leading to

199. Fla. Stat. Ann. § 403.061(7).

200. Fla. Elec. Power Coordinating Grp., Inc. v. Askew, 366 So.2d 1186, 1188 (Fla. Dist. Ct. App., 1st Dist. 1978).

201. *Id.*

202. Final Rule Economic Analysis, *supra* note 167, tbl.II-2 at 37–38.

203. *See* Appendices to the Resources and Programmatic Assessment, App. A at 14, 23, 24, 29, 31, 39, 57, 66, 73, 87.

potential loss of benefits that could be higher than in a state that lacks the authority to regulate beyond WOTUS.

v. The Final Rule Economic Analysis indicates that **Indiana** does not have "broad legal limitations."[204] However, after passage of HB 1082 into law in 2016, all environmental rules more stringent than federal rules are subject to legislative veto; they cannot go into effect until the end of the next legislative session, giving state lawmakers an opportunity to overrule them.[205] Additionally, Indiana Code 13-14-9-8 (h) specifies that when federal law or regulations become less stringent, state law automatically shrinks as well:

> [If] a proposed rule is adopted . . . and the federal law, rule, or regulation on which the adopted rule is based is later repealed or otherwise nullified by legislative or administrative action, then that part of the adopted rule that corresponds to the repealed or nullified federal law, rule, or regulation is void as of the effective date of the legislative or administrative action repealing or otherwise nullifying the federal law, rule, or regulation[.][206]

This language indicates that Indiana does indeed have a policy to not exceed federal environmental standards.

vi. The Final Rule's Economic Analysis also indicates that **Iowa** does not have "broad legal limitations," but there are laws preventing more state stringent water quality effluent standards,[207] and special administrative procedures required for increased stringency over any implementation of federal rules or environmental standards.[208]

vii. The Final Rule's Economic Analysis indicates that **Maine, Maryland, Michigan, Oklahoma, Utah, Virginia, and West Virginia** do not have "broad legal limitations," but Maine, Michigan, North Dakota, Oklahoma, Utah, and Virginia have laws, and Maryland operates under a twenty-four-year-old executive order, that require additional administrative justification and/or findings if the state agency chooses to impose a rule more stringent than federal requirements.[209] **Nevada** also is listed as having no "broad legal limitations," but is under requirement for additional procedures if a state regulation will be more stringent than the federal regulation.[210]

viii. The Final Rule's Economic Analysis also categorizes **New Jersey** as having "no broad legal limitation" prohibiting regulation beyond

204. Final Rule Economic Analysis, *supra* note 167, tbl.II-2 at 37.

205. Ind. HB 1062 (2016), *codified at* IND. CODE § 13-14-9-4(c) (2017).

206. IND. CODE § 13-14-9-8(h)(1) (2017).

207. IOWA CODE § 455B.171 (2021).

208. *Id.* § 455B.105(3)(2018).

209. ME. STAT. TIT. 38, § 341-H(3) (2019); MICH. COMP. LAWS, § 24.232 (2019) & 24.245 (2019); MD CODE REGS. 01.01.1996.03 (1996); OKLA. STAT. TIT. 27A § 1-1-206 (1993); UTAH CODE ANN. § 19-5-105 (West 2011); VA. CODE ANN. §§ 62.1-44.15(3a) & (10)(West 2020); *Id.* § 62.1-44.19:7(B)(West 2011); W.VA. CODE §§ 22-5-4 (2022); *Id.* § 22-1-3a (1994). North Dakota's law was repealed in 2017. *See* N.D. CENT. CODE § 23-01-04.1.

210. Final Rule Economic Analysis, *supra* note 167, tbl.II-2 at 37.

federal law.[211] However, a 1994 New Jersey executive order requires additional procedures and the substantive justification of a cost-benefit analysis in order for the state agency to regulate beyond federal standards, and a 2010 executive order prohibits New Jersey from regulating beyond federal law except in limited circumstances.[212]

ix. The Final Rule's Economic Analysis also categorizes **Oregon** as having "no broad legal limitation" prohibiting regulation beyond federal law.[213] However, Oregon has a blanket administrative procedures rule that instructs that Oregon regulations be equivalent to federal ones unless certain exceptions apply.[214]

x. The Final Rule's Economic Analysis also categorizes **Tennessee** as having "no broad legal limitation" prohibiting regulation beyond federal law.[215] Tennessee does, however, require special procedures and justifications if the state rules would increase costs on local government.[216]

211. *Id.*

212. N.J. Exec. Order No. 27 (Gov. Whitman), Nov. 2, 1994; N.J. Exec. Order No. 2 (Gov. Christie), Jan. 20, 2010.

213. Final Rule Economic Analysis, *supra* note 167, tbl.II-2 at 38.

214. OR. REV. STAT. § 183.332.

215. Final Rule Economic Analysis, *supra* note 167, tbl.II-2 at 38.

216. TENN. CODE ANN. § 4-5-226(k) (2021).