

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF SOUTH CAROLINA**

SOUTH CAROLINA COASTAL  
CONSERVATION LEAGUE, et al.

*Plaintiffs,*

v.

ANDREW R. WHEELER, et al.

*Defendants,*

AMERICAN FARM BUREAU FEDERATION,  
et al.,

*Intervenor-Defendants.*

No. 2:20-cv-01687-DCN

**BRIEF OF THE INSTITUTE FOR POLICY INTEGRITY AT NEW YORK  
UNIVERSITY SCHOOL OF LAW AS AMICUS CURIAE IN SUPPORT OF  
PLAINTIFFS' MOTION FOR SUMMARY JUDGMENT**

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## TABLE OF CONTENTS

TABLE OF AUTHORITIES .....	ii
INTEREST OF AMICUS CURIAE .....	1
SUMMARY OF ARGUMENT .....	2
ARGUMENT .....	4
I.    The Agencies Cannot Evade Responsibility for Assessing the Rule’s Harms .....	4
II.   The Agencies Irrationally Disregard Most of the Rule’s Harms .....	7
III.  The Agencies Grossly Undervalue the Harms That They Do Quantify, Failing to Recognize the Critical Importance of Wetlands .....	10
A.   The Nationwide Analysis Irrationally Undervalues the Harms of Wetlands Degradation Through at Least Three Major Errors .....	11
1.    The Agencies Ignore the Substantial Interstate Benefits Wetlands Provide .....	12
2.    The Agencies Grossly Underestimate Wetlands’ In-State Benefits .....	15
3.    The Agencies’ Assumption that States Will Preserve Waters Losing Federal Protection Is Speculative and Overlooks Key Considerations.....	19
B.   The Agencies’ Case Study Estimates Are Fundamentally Flawed.....	22
IV.  In Stark Contrast to Their Treatment of Forgone Benefits, the Agencies Substantially Overestimate Compliance-Cost Savings.....	23
CONCLUSION.....	25

**TABLE OF AUTHORITIES**

<b>Cases</b>	<b>Page(s)</b>
<i>Advocates for Highway &amp; Auto Safety v. FMCSA</i> , 429 F.3d 1136 (D.C. Cir. 2005) .....	5
<i>Air All. Hous. v. EPA</i> , 906 F.3d 1049 (D.C. Cir. 2018).....	4, 5
<i>Am. Petroleum Inst. v. EPA</i> , 862 F.3d 50 (D.C. Cir. 2017), <i>modified on reh’g</i> , 883 F.3d 918 (2018).....	18
<i>Am. Trucking Ass’ns, Inc. v. EPA</i> , 175 F.3d 1027 (D.C. Cir. 1999), <i>rev’d on other grounds sub nom. Whitman v. Am. Trucking Ass’ns</i> , 531 U.S. 457 (2001) .....	9
<i>Ariz. Cattle Growers’ Ass’n v. U.S. Fish &amp; Wildlife</i> , 273 F.3d 1229 (9th Cir. 2001) .....	19
<i>Burlington N. &amp; Santa Fe Ry. v. STB</i> , 526 F.3d 770 (D.C. Cir. 2008).....	21
<i>Bus. Roundtable v. SEC</i> , 647 F.3d 1144 (D.C. Cir. 2011).....	19, 25
<i>California v. Bernhardt</i> , No. 18-cv-05712 (N.D. Cal. July 15, 2020).....	5, 25
<i>Clean Wisc. v. EPA</i> , No. 18-1203, 2020 WL 3886197 (D.C. Cir. July 10, 2020).....	15
<i>Corrosion Proof Fittings v. EPA</i> , 947 F.2d 1201 (5th Cir. 1991) .....	17
<i>Ctr. for Biological Diversity v. NHTSA.</i> , 538 F.3d 1172 (9th Cir. 2008).....	passim
<i>Encino Motorcars, LLC v. Navarro</i> , 136 S. Ct. 2117 (2016) .....	5
<i>EPA v. EME Homer City Generation, L.P.</i> , 572 U.S. 489 (2014).....	20
<i>FCC v. Fox Television Stations, Inc.</i> , 556 U.S. 502 (2009).....	25
<i>Michigan v. EPA</i> , 135 S. Ct. 2699 (2015) .....	4
<i>Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.</i> , 463 U.S. 29 (1983).....	3, 5
<i>Nat’l Ass’n of Home Builders v. EPA</i> , 682 F.3d 1032 (D.C. Cir. 2012).....	5
<i>Nat’l Cable &amp; Telecomm. Ass’n v. Brand X Internet Servs.</i> , 545 U.S. 967 (2005).....	14
<i>Pub. Citizen v. FMCSA</i> , 374 F.3d 1209 (D.C. Cir. 2004).....	7

**TABLE OF AUTHORITIES (cont.)**

<b>Cases (cont.)</b>	<b>Page(s)</b>
<i>Pub. Citizen, Inc. v. Mineta</i> , 340 F.3d 39 (2d Cir. 2003).....	3, 6
<i>Puget Soundkeeper All. v. Wheeler</i> , No. C15-1342, 2018 WL 6169196 (W.D. Wa. Nov. 26, 2018) .....	2
<i>Rapanos v. United States</i> , 547 U.S. 715 (2006).....	2, 20
<i>S.C. Coastal Conservation League v. Pruitt</i> , 318 F. Supp. 3d 959 (D.S.C. 2018).....	2
<i>Sierra Club v. Dep’t of the Interior</i> , 899 F.3d 260 (4th Cir. 2018) .....	13, 22
<i>Solid Waste Agency of N. Cook Cty. v. U.S. Army Corps of Engineers</i> , 531 U.S. 159 (2001).....	2
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33 U.S.C. § 1251(a) .....	passim
Clean Water Rule: Definition of “Waters of the United States,” 80 Fed. Reg. 37,054 (June 29, 2015) .....	2
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Ariel Wittenberg & Kevin Bogardus, “EPA Falsely Claims ‘No Data’ on Waters in WOTUS Rule,” E&E News (Dec. 11, 2018), <a href="https://www.eenews.net/stories/1060109323">https://www.eenews.net/stories/1060109323</a> .....	9
Attorneys General of New York et al., Comment Letter to Revised Definition of “Waters of the United States” (Apr. 15, 2019), <i>available at</i> <a href="https://www.regulations.gov/document?D=EPA-HQ-OW-2018-0149-5467">https://www.regulations.gov/document?D=EPA- HQ-OW-2018-0149-5467</a> .....	20
Brief for Appellant, <i>Colorado v. Wheeler</i> , No. 20-1238 (10th Cir. filed July 9, 2020) .....	6
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**TABLE OF AUTHORITIES (cont.)**

<b>Other Authorities (cont.)</b>	<b>Page(s)</b>
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**TABLE OF AUTHORITIES (cont.)**

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Glenn C. Blomquist & John C. Whitehead, <i>Resource Quality Information and Validity of Willingness to Pay in Contingent Valuation</i> , 20 Res. & Energy Econ. 179 (1998) .....	22, 23
Inst. for Pol'y Integrity, Comments on Proposed Rule (Apr. 15, 2019), available at <a href="https://www.regulations.gov/document?D=EPA-HQ-OW-2018-0149-6898">https://www.regulations.gov/document?D=EPA-HQ-OW-2018-0149-6898</a> .....	1, 20, 25
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John C. Whitehead, Ph.D., <i>Comments on “Economic Analysis for the Proposed Revised Definition of ‘Waters of the United States’”</i> (2019), available at <a href="https://www.regulations.gov/document?D=EPA-HQ-OW-2018-0149-9717">https://www.regulations.gov/document?D=EPA-HQ-OW-2018-0149-9717</a> .....	13, 15, 23, 23
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States’ Memorandum in Support of Motion for Preliminary Injunction, <i>North Dakota v. EPA</i> , 127 F. Supp. 3d 1047 (D.N.D. 2015) (No. 3:15-cv-00059).....	21

The Institute for Policy Integrity at New York University School of Law (“Policy Integrity”) submits this brief as *amicus curiae* in support of Plaintiffs’ challenge to the Navigable Waters Protection Rule: Definition of “Waters of the United States,” 85 Fed. Reg. 22,250 (Apr. 21, 2020) (“Rule”), promulgated by the Environmental Protection Agency and Department of the Army, Corps of Engineers (collectively, “the agencies”).<sup>1</sup>

### **INTEREST OF AMICUS CURIAE**

Policy Integrity is a nonpartisan think tank dedicated to improving the quality of government decisionmaking through advocacy and scholarship in administrative law, economics, and environmental policy. Policy Integrity’s staff of economists and lawyers has produced extensive scholarship on the use of economic analysis in regulatory decisionmaking. Its director, Professor Richard L. Revesz, has published over 80 articles and books on environmental and administrative law, including numerous works on environmental federalism.<sup>2</sup>

Harnessing its academic and regulatory expertise, Policy Integrity has participated in multiple agency and court proceedings regarding the agencies’ attempts to limit their regulatory jurisdiction under the Clean Water Act. Policy Integrity submitted comments on the proposal underlying the Rule.<sup>3</sup> Policy Integrity’s economics director, Peter Howard, Ph.D., co-authored a report with Jeffrey Shrader, Ph.D., a professor at Columbia University’s School of International and Public Affairs, analyzing flaws in the economic analysis accompanying that proposal, which

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<sup>1</sup> This brief does not purport to represent the views, if any, of New York University School of Law. Policy Integrity states that no party’s counsel authored this brief in whole or in part, and no person contributed money intended to fund the preparation or submission of the brief.

<sup>2</sup> A full list of publications can be found in Prof. Revesz’s online faculty profile, <https://its.law.nyu.edu/facultyprofiles/index.cfm?fuseaction=profile.overview&personid=20228>.

<sup>3</sup> Available at <https://www.regulations.gov/document?D=EPA-HQ-OW-2018-0149-6898> (“Policy Integrity Comments”).

Policy Integrity submitted to the record (“Howard & Shrader Report”).<sup>4</sup> Policy Integrity submitted comments on the agencies’ earlier proposal to repeal the Clean Water Rule: Definition of “Waters of the United States,” 80 Fed. Reg. 37,054 (June 29, 2015) (“Clean Water Rule”).<sup>5</sup> And Policy Integrity submitted an *amicus* brief supporting a challenge to the suspension of the Clean Water Rule, arguing that the agencies failed to rationally analyze the harms of the suspension and ignored considerable forgone benefits.<sup>6</sup> See Brief for Institute for Policy Integrity as Amicus Curiae 3–4, *New York v. Pruitt*, No. 18-1030 (S.D.N.Y. filed May 11, 2018).<sup>7</sup>

Here, Plaintiffs argue that the agencies unlawfully fail to meaningfully evaluate the Rule’s extensive water-quality impacts, including through their “flawed and incomplete” economic analysis. Brief for Plaintiffs 23. Policy Integrity’s expertise in economic analysis and experience with the agencies’ various rulemakings give it a unique and useful perspective on that claim.

### SUMMARY OF ARGUMENT

This brief focuses on the agencies’ economic analysis for the Rule, which is a key way in which the agencies obscure the Rule’s anticipated harms. Despite their obligation to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters,” 33 U.S.C. § 1251(a)—and their authority to exercise jurisdiction over waters with “a ‘significant nexus’ to waters . . . navigable in fact,” *Rapanos v. United States*, 547 U.S. 715, 759 (2006) (Kennedy, J.,

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<sup>4</sup> Available at <https://www.regulations.gov/document?D=EPA-HQ-OW-2018-0149-5272>.

<sup>5</sup> Available at <https://www.regulations.gov/document?D=EPA-HQ-OW-2017-0203-10362>.

<sup>6</sup> Policy Integrity also submitted an *amicus* brief in the Northern District of California supporting a motion for a preliminary injunction against the Rule. Brief for Institute for Policy Integrity as Amicus Curiae, *California v. Wheeler*, No. 20-3005, 2020 WL 3403072 (N.D. Cal. June 19, 2020).

<sup>7</sup> Available at [https://policyintegrity.org/documents/Policy\\_Integrity\\_Amicus\\_Brief\\_-\\_Clean\\_Water\\_Rule\\_051118.pdf](https://policyintegrity.org/documents/Policy_Integrity_Amicus_Brief_-_Clean_Water_Rule_051118.pdf). This Court and another both struck down that suspension for failure to comply with notice-and-comment requirements. *S.C. Coastal Conservation League v. Pruitt*, 318 F. Supp. 3d 959 (D.S.C. 2018); *Puget Soundkeeper All. v. Wheeler*, No. C15-1342, 2018 WL 6169196 (W.D. Wa. Nov. 26, 2018).

concurring) (quoting *Solid Waste Agency of N. Cook Cty. v. U.S. Army Corps of Engineers*, 531 U.S. 159, 167 (2001))—the agencies do not meaningfully assess the Rule’s impacts on downstream water quality, repeatedly failing to recognize the extensive harm the Rule will cause.

Time after time, the economic analysis relies on irrational and ill-informed assumptions, violates regulatory guidance and precedent, and makes claims about water connectivity that are inconsistent with basic science—all with the effect of minimizing the Rule’s extensive harms and making them seem minor in relation to its alleged cost savings. For one, the agencies fail to project the harms to water quality that the Rule will impose due to rollbacks under the Section 402 (pollutant discharge) and Section 311 (oil-spill prevention) programs, falsely claiming a lack of data despite extensive analysis by the agencies about similar impacts in prior rulemakings. And although the agencies do value impacts from wetlands degradation under Section 404’s dredge/fill program, their analysis is riddled with errors that understate critical harms.

All told, the agencies likely neglect roughly 90% of the Rule’s wetlands-related costs—more than \$1 billion annually—according to expert analyses, leading the agencies to falsely claim that the Rule’s purported cost savings justify these harms. By doing so, the agencies fail to rationally “explain why the costs saved were worth the benefits sacrificed.” *Pub. Citizen, Inc. v. Mineta*, 340 F.3d 39, 58 (2d Cir. 2003). This is particularly egregious because, as detailed below, the agencies’ cost-savings estimates for the Rule are substantially inflated from prior analyses.

By disregarding many of the Rule’s impacts on the “chemical, physical, and biological integrity of the Nation’s waters,” 33 U.S.C. § 1251(a), the agencies “fail[] to consider an important aspect” of the Clean Water Act’s jurisdictional analysis, *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983), rendering the Rule arbitrary and capricious.

## ARGUMENT

In limiting clean-water protection to its narrowest scope in decades, the agencies repeatedly obscure the Rule’s substantial harms. From a scientific perspective, as EPA’s own Science Advisory Board concluded, the agencies “do[] not provide a scientific basis” for the Rule or “incorporate best available science” to analyze its impacts. EPA Sci. Advisory Bd., Commentary on the Proposed Rule Defining the Scope of Waters Federally Regulated Under the Clean Water Act 1–2 (2020).<sup>8</sup> And from a social-welfare perspective, while the agencies’ economic analysis claims to assess the Rule’s impacts, it too is sorely lacking. The errors in that analysis demonstrate that the agencies fail to provide a reasoned explanation for the Rule.

### **I. The Agencies Cannot Evade Responsibility for Assessing the Rule’s Harms**

As a preliminary matter, the agencies hope to avoid responsibility for their error-filled economic analysis by claiming that they did not rely on it. But that attempt falls flat.

The agencies prepared an economic analysis of the Rule pursuant to executive guidance that requires agencies to assess the costs and benefits of regulatory actions and “propose or adopt” a regulation only when the “benefits . . . justify its costs.” Exec. Order No. 12,866, § 1(b)(6), 58 Fed. Reg. 51,735 (Oct. 4, 1993). Regulatory costs under this approach encompass “any disadvantage” from a rule, “including, for instance, harms that regulation might do to human health or the environment.” *Michigan v. EPA*, 135 S. Ct. 2699, 2707 (2015). And courts generally require agencies to address such costs when issuing a deregulatory rule such as the one at issue here. *See, e.g., Air All. Hous. v. EPA*, 906 F.3d 1049, 1067–68 (D.C. Cir. 2018).

Pursuant to this guidance, agencies for decades have assessed and quantified regulatory impacts. EPA, for example, regularly uses economics to translate a rule’s expected health and

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<sup>8</sup> Available at <https://perma.cc/ETX9-QSPQ>.

welfare impacts into monetary values. When promulgating the Clean Water Rule, the agencies monetized many of the rule’s environmental benefits and determined that monetized benefits exceeded total compliance costs by at least tens of millions of dollars per year. EPA & U.S. Dep’t of the Army, *Economic Analysis of the EPA-Army Clean Water Rule* xi (2015) (“2015 EA”).<sup>9</sup> Yet for this Rule, the agencies’ economic analysis is hopelessly flawed as they continually understate the Rule’s forgone benefits while inflating compliance-cost savings. *See infra* Sections II–IV.

When substantial flaws undermine an agency’s economic analysis, like here, courts find the rule arbitrary and capricious. *See, e.g., Advocates for Highway & Auto Safety v. FMCSA*, 429 F.3d 1136, 1146–47 (D.C. Cir. 2005). Yet the agencies here claim that the Rule “is not based on the . . . economic analysis,” and cite caselaw suggesting that only if “an agency decides to rely on a cost-benefit analysis” would a serious flaw undermining that analysis render the rule unreasonable. 85 Fed. Reg. at 22,335 (citing *Nat’l Ass’n of Home Builders v. EPA*, 682 F.3d 1032, 1039–40 (D.C. Cir. 2012)). But this claim cannot relieve the agencies of responsibility for their erroneous economic analysis, for two reasons.

First, when changing course, an agency is required to “articulate a satisfactory explanation for its action,” and courts will set aside the action if an agency failed to consider “an important aspect of the problem.” *State Farm*, 463 U.S. at 43. An important aspect that agencies may not ignore is the harm of a deregulatory rule, *see, e.g., Air All.*, 906 F.3d at 1067, including, like here, when an agency makes policy judgments it considers “reasonable” in interpreting an “ambiguous” statute. *Encino Motorcars, LLC v. Navarro*, 136 S. Ct. 2117, 2124–25 (2016); *see also California v. Bernhardt*, No. 18-cv-05712 (N.D. Cal. July 15, 2020) (vacating regulatory repeal due to faulty

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<sup>9</sup> Available at [https://www.epa.gov/sites/production/files/2015-06/documents/508-final\\_clean\\_water\\_rule\\_economic\\_analysis\\_5-20-15.pdf](https://www.epa.gov/sites/production/files/2015-06/documents/508-final_clean_water_rule_economic_analysis_5-20-15.pdf).

cost-benefit analysis). Here, the agencies claim to have discretion under the Clean Water Act in defining regulatory jurisdiction and assert that they are exercising that discretion to provide an “implementable approach.” 85. Fed. Reg. at 22,262. Yet they hardly assess the Rule’s impact on “the chemical, physical, and biological integrity of the Nation’s waters,” 33 U.S.C. § 1251(a), and *National Association of Home Builders*—the case that the agencies invoke—does not relieve them of that duty. By failing to adequately assess the Rule’s water-quality harms—as evidenced, in part, by their faulty economic analysis—the agencies do not provide the required justification.

Second, the agencies’ own statements demonstrate that the Rule is based in part on the economic analysis. In justifying the Rule, the agencies tout their belief that the Rule will “ease administrative burdens,” 85 Fed. Reg. at 22,269, that the Rule will result in “net cost savings for all entities affected,” *id.* at 22,335, and that “net benefits would increase,” *id.* at 22,334. And in their brief filed in a separate challenge to the Rule, pending in the U.S. Court of Appeals for the Tenth Circuit, the agencies claim that the Rule is “supported” by the economic analysis and that, along with several other documents the agencies prepared, the economic analysis helps show that the agencies “thoroughly explained” their decisions. Brief for Appellant 15, *Colorado v. Wheeler*, No. 20-1238 (10th Cir. filed July 9, 2020) (“Gov’t 10th Cir. Br.”). In addition, citing the economic analysis as confirmation, the agencies claim that the injunction entered in that case should be lifted because the rule will “benefit . . . the public” and, even more, that the Rule’s benefits will “far outweigh costs or forgone benefits.” *Id.* at 44–45. It is black-letter law that when emphasizing “economic costs,” agencies must “explain why the costs saved were worth the benefits sacrificed.” *Mineta*, 340 F.3d at 58. Yet the agencies instead have put “a thumb on the scale” by omitting key health and welfare costs, rendering the Rule unreasonable. *See Ctr. for Biological Diversity v. NHTSA.*, 538 F.3d 1172, 1198 (9th Cir. 2008).

Thus, the agencies cannot escape the flaws in their economic analysis. And as detailed below, those flaws make clear that the Rule is arbitrary and capricious.

## II. The Agencies Irrationally Disregard Most of the Rule's Harms

The economic analysis offers little definitive information about the Rule's impacts outside the Section 404 program. The agencies allege that “data limitations constrain” their “ability to estimate, quantify, and value the potential effects of the final rule on the [Clean Water Act] sections 402 and 311 programs,” EPA & Dep't of the Army, *Economic Analysis of the Navigable Waters Protection Rule: Definition of “Waters of the United States”* xxii (2020) (“EA”)<sup>10</sup>—and, as a result, they accord these impacts virtually no significance, *see, e.g., id.* at xxi (tallying Rule's costs and benefits without quantification of impacts under Sections 311 or 402).

But “[r]egulators by nature work under conditions of serious uncertainty,” and “uncertainty alone” cannot serve as “an excuse to ignore . . . a particular regulatory issue.” *Pub. Citizen v. FMCSA*, 374 F.3d 1209, 1221 (D.C. Cir. 2004). Instead, longstanding White House guidance instructs agencies operating under uncertainty to “monetize . . . whenever possible”—and, when monetization is not possible, to present relevant “quantitative information” such as the number of “stream miles of [affected] water quality.” Office of Mgmt. & Budget, *Circular A-4, Regulatory Analysis 27* (2003) (“Circular A-4”). Accordingly, agencies commonly provide “estimates of the probabilities of environmental damage to soil or water, the possible loss of habitat, or risks to endangered species as well as probabilities of harm to human health and safety.” *See id.* at 40.

The agencies' analysis of the Clean Water Rule in 2015 provides a strong example of this guidance in practice. When assessing that rule, the agencies “examined a random sample of 188

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<sup>10</sup> Available at [https://www.epa.gov/sites/production/files/2020-01/documents/econ\\_analysis\\_-\\_nwpr.pdf](https://www.epa.gov/sites/production/files/2020-01/documents/econ_analysis_-_nwpr.pdf).

[recent] jurisdictional determinations,” and through that analysis, projected that the Clean Water Rule would increase federal regulatory protection of all waters by 2.84–4.65%. 2015 EA at 12. This jurisdictional estimate allowed the agencies to monetize many regulatory costs and benefits, including most costs and benefits under the Section 402 and 404 programs. *Id.* at xi. And while the agencies could not monetize benefits (but did monetize compliance costs) under Section 311 due to limits in economic valuation tools, *see id.*, their estimate of the rule’s jurisdictional impacts allowed them to assess the magnitude of those effects. Based on their assessment, the agencies concluded that monetized benefits—namely, many of the environmental benefits under Sections 402 and 404—exceeded the 2015 rule’s total compliance costs. *Id.* at x–xi.

In contrast to the informative approach taken in the past, here the agencies continually complain that “data limitations” prevent quantification of the waters losing protection. *See* EA at xiv, xxii, 16, 19, 48, 52, 60, 97, 99, 120, 127, 164, 171. As a result, none of the analyses that the agencies present offer any genuine assessment of the harms that the Rule will cause beyond the Section 404 program. For one, the agencies analyze three limited “case study” watersheds, but fail to monetize Section 402 water-quality impacts like they did in the Clean Water Rule. *Id.* at xix tbl. ES-4. Moreover, in a constrained nationwide analysis, the agencies quantify some impacts under the Section 404 program only—but do not quantify nationwide impacts under Sections 311 or 402 as they did in 2015. *Id.* at xxii–xxiii. And in a qualitative assessment, the agencies briefly recognize that the Rule “may have a negative impact on water quality,” *id.* at 59, and “increase the probability of a[n oil] spill occurring,” *id.* at 83, but do not assess the severity or downstream harms of these impacts and repeatedly suggest that states may limit these impacts by filling the regulatory gap, *see, e.g., id.* at 62; *see also infra* Section III.A.3 (disputing assumption that states will fill gap).

This is insufficient. Agencies have an obligation to reasonably assess available information about a rule’s impacts and cannot simply “ignore[]” impacts that are “difficult . . . to quantify.” *Am. Trucking Ass’ns, Inc. v. EPA*, 175 F.3d 1027, 1052 (D.C. Cir. 1999), *rev’d on other grounds sub nom. Whitman v. Am. Trucking Ass’ns*, 531 U.S. 457 (2001). The agencies could have fulfilled this obligation by estimating harms relating to the Section 311 and 402 programs using “plausible assumptions,” Circular A-4 at 39—just as they did when analyzing the Clean Water Rule, *see* 2015 EA at v (acknowledging “limited amount of data” but explaining that agencies estimated impacts through “analysis” and plausible “assumptions”). The agencies should again have employed “appropriate statistical techniques” to assess the “probability . . . [of] relevant outcomes,” Circular A-4 at 40. By throwing their hands up instead, the agencies do not provide an adequate explanation for the departure from that prior practice. And in inappropriately failing “to monetize or quantify” impacts under Sections 311 and 402, they effectively place “no value” on these harms, which is arbitrary and capricious when demonstrated statistical valuation techniques are available. *Ctr. for Biological Diversity*, 538 F.3d at 1200–01.

Indeed, there is no clear reason why the agencies could not have estimated the scope of the Rule’s jurisdictional changes like they did for the Clean Water Rule. They even collected much of the underlying data for doing so: For their nationwide Section 404 analysis, the agencies project reductions in permitting and mitigation by analyzing “permit data,” EA at xxii, yet do not clearly explain why they cannot perform a similar analysis for other Clean Water Act provisions. In fact, the agencies estimated the percentage of streams nationwide that are categorically excluded under the Rule, according to a Freedom of Information Act disclosure,<sup>11</sup> yet now disclaim this analysis.

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<sup>11</sup> Ariel Wittenberg & Kevin Bogardus, “EPA Falsely Claims ‘No Data’ on Waters in WOTUS Rule,” E&E News (Dec. 11, 2018), <https://www.eenews.net/stories/1060109323>.

See EPA & Dep't of the Army, Resource and Programmatic Assessment for the Navigable Waters Protection Rule: Definition of "Waters of the United States" 41 n.56 (2020).<sup>12</sup>

By failing to meaningfully assess the scope of so many of the Rule's jurisdictional impacts, the agencies do not meaningfully evaluate "how important" these rollbacks are or provide even ballpark estimates of the resulting water-quality harms. See Circular A-4 at 2. Rather, the agencies present an inconclusive qualitative assessment, see EA at 53–94 (failing to assess severity or downstream harms of water-quality impacts), present tallies of the Rule's costs and benefits in the case-study regions that simply list most of the Rule's impacts as "not quantified" or "not monetized," *id.* at xviii–xix tbl. ES-4, and report the Rule as net beneficial nationwide without carefully assessing the national effects on the Section 311 and 402 programs, 85 Fed. Reg. at 22,334. This too violates regulatory guidance, as agencies should "evaluate the[] significance" of all effects—quantified and unquantified—and assess "which non-quantified effects are most important," using reasonable assumptions to analyze whether the rule is net beneficial once those impacts are taken into account. Circular A-4 at 2.

In short, the agencies cannot seriously purport to protect the nation's waters when they do not meaningfully assess how severely the Rule will harm water quality. Their failure to quantify or meaningfully assess the scope of the Rule's impacts is arbitrary and capricious.

### **III. The Agencies Grossly Undervalue the Harms That They Do Quantify, Failing to Recognize the Critical Importance of Wetlands**

The limited and circumscribed monetization that the agencies do provide is also fatally flawed as it unreasonably undervalues the Rule's harms in multiple ways. As explained above, the agencies monetize harms only under the Section 404 program. They assess these impacts at two

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<sup>12</sup> Available at [https://www.epa.gov/sites/production/files/2020-01/documents/rpa\\_-\\_nwpr\\_.pdf](https://www.epa.gov/sites/production/files/2020-01/documents/rpa_-_nwpr_.pdf).

different scales: nationwide, and in three “case studies.” But under both approaches, the agencies arbitrarily minimize the harms of wetlands degradation.

**A. The Nationwide Analysis Irrationally Undervalues the Harms of Wetlands Degradation Through at Least Three Major Errors**

The nationwide analysis irrationally disregards most of the harms to wetlands under the Section 404 program and incorrectly concludes that this aspect of the Rule is cost-benefit justified.

The nationwide analysis projects cost savings and forgone benefits from wetlands degradation under four “scenarios,” which apply different assumptions about the degree to which states will regulate waters losing federal protection. EA at xxii–xxiii. Under each scenario, the agencies conclude that the Rule’s purported cost savings exceed the harms. But the agencies report considerable uncertainty in their estimates and recognize that the Rule may be net-costly. *See id.* at xxiii (reporting overlapping ranges of costs and benefits). For instance, under Scenario 0—the scenario that, as detailed below, properly assumes no state gap-filling—the agencies report \$29–\$555 million in forgone benefits, with cost-savings estimates of \$245–\$513 million, meaning that the “high estimates of forgone benefits are greater than cost estimates.” *Id.* at xxii–xxiii. In their Tenth Circuit brief, the agencies claim that even under the “most cautious assumptions,” the benefits of the rule outweigh its costs. Gov’t 10th Cir. Br. 45. But these numbers, from agencies’ own analysis, show that claim to be untrue.

When a regulatory measure may cause net harms, the agency should “conduct further analysis” to examine its assumptions and determine which “alternative plausible assumptions is more appropriate.” Circular A-4 at 42. Here, however, the agencies disregard this recommendation and continually short-change their estimates of forgone benefits. Specifically, the agencies commit at least three crucial errors that substantially underestimate the Rule’s harms. First, the agencies arbitrarily limit their analysis to the impacts of wetlands inside a state, ignoring wetlands’ well-

recognized interstate benefits. Second, they erroneously devalue the harms that individuals receive from in-state wetlands. And third, the agencies make baseless and irrational assumptions that states will fill the regulatory gap left by the Rule, despite extensive indications otherwise.

These errors are significant. Correcting them reveals that the Rule could deprive society of over \$1.6 billion in annual benefits under the Section 404 program, according to an expert economist's regulatory comments, far beyond what the agencies project. Jeffrey Mullen, Ph.D., *Final Review of the 2018 EPA Economic Analysis for the Proposed Revised Definition of Waters of the United States* 32 tbl. 2.2 (2019), cited in Brief for Plaintiffs 23 n. 30 ("Mullen Report").<sup>13</sup> When properly analyzed, the Rule's social harms from wetlands degradation thus likely exceed associated cost savings by a wide margin. *Compare id. with EA* at xxii.

### **1. The Agencies Ignore the Substantial Interstate Benefits Wetlands Provide**

One of the most substantial errors is the agencies' decision to cut off the harms of wetlands degradation at the state border. This not only drastically undercounts the Rule's harms, but also evinces a fundamental misunderstanding of the value of wetlands services to downstream waters.

To monetize the costs of wetlands degradation, the agencies estimate the wetlands acreage lost in each state due to the Rule and then, using studies that assess people's willingness to pay for wetlands protection, calculate the monetary value of that lost acreage. EA at 207. But the agencies erroneously assume that only individuals residing within the state of the affected wetland are harmed and find that the harm from loss of out-of-state wetlands "is zero." *Id.*

This assumption violates sound science. As the agencies recognized in the Clean Water Rule, wetlands benefit a wide range of other water bodies without respect to state boundaries. *See*

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<sup>13</sup> Available at <https://www.regulations.gov/document?D=EPA-HQ-OW-2018-0149-9717> (Exhibit D). Mullen's estimates are in 2017\$, whereas the EA presents estimates in 2018\$.

EPA, *Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence* 4-1 to 4-45 (2015) (“Connectivity Report”).<sup>14</sup> For instance, wetlands provide physical, chemical, and biological functions that affect the integrity of downstream waters, reducing flooding from rivers and streams, providing nutrients that help those waters thrive, and serving as a habitat for fish and amphibians that inhabit those waters. *Id.* at 4-1 to 4-2.

Echoing the science, economic studies highlighted in experts’ comments conclude that individuals place considerable value on wetlands outside their home state. *See, e.g.*, Catherine L. Kling, Ph.D., *Expert Review of the Economic Analysis for the Proposed Revised Definition of “Waters of the United States”* 6 (2019) (“Kling Report”).<sup>15</sup> One study, for example, finds that more than 80% of the benefits of wetlands protection are interstate. John C. Whitehead, Ph.D., *Comments on “Economic Analysis for the Proposed Revised Definition of ‘Waters of the United States’”* 10 (2019), *cited in* Brief for Plaintiffs 23 n. 30 (“Whitehead Report”).<sup>16</sup> The agencies’ contrary assumption that the benefits of wetlands protection stop at the state border represents “a complete failure to reasonably reflect upon the information contained in the record.” *Sierra Club v. Dep’t of the Interior*, 899 F.3d 260, 293 (4th Cir. 2018) (internal quotation marks omitted).

The agencies’ assumption is particularly nonsensical given their recognition that wetlands provide benefits across vast intrastate distances. For example, when assessing South Carolina, the agencies rightly assume that households in Myrtle Beach benefit from wetlands near the Savannah River, over 250 miles away, *see* EA at 222 tbl. E-5 (calculating harms from wetlands degradation for all in-state residents), but then wrongly assume that households in Augusta, Georgia—which

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<sup>14</sup> Available at <https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=296414>.

<sup>15</sup> Available at <https://www.regulations.gov/document?D=EPA-HQ-OW-2018-0149-5467> (Attachment B).

<sup>16</sup> Available at <https://www.regulations.gov/document?D=EPA-HQ-OW-2018-0149-9717> (Exhibit C).

sits directly along the river—are unaffected by what happens on South Carolina’s side of the Savannah River watershed. This presumption that Georgians do not also benefit from upstream waters in South Carolina is an “[u]nexplained inconsistency” that cannot stand. *See Nat’l Cable & Telecomm. Ass’n v. Brand X Internet Servs.*, 545 U.S. 967, 981 (2005).

The agencies’ justification for this approach is also illogical. The agencies explain that most of the relevant economic literature on wetlands valuation was “conducted at the state level.” EA at 207. But the fact that some studies looked at valuation of in-state wetlands hardly means that wetlands provide zero interstate benefits. In fact, numerous relevant studies assessed multi-state regions, and those studies “make clear that people are willing to pay for wetlands across regional distances.” Howard & Shrader Report at 11. One study, for instance, “found that residents of Oregon, Washington, and Nevada all reported positive willingness to pay values to protect wetlands in . . . California.” Kling Report at 6. Indeed, the agencies briefly admit that “wetland benefits cross[] state boundaries,” EA at 226, yet their analysis assumes the opposite.

To be sure, in a three page-appendix, the agencies conduct a “sensitivity analysis” where they acknowledge that wetlands may produce some interstate benefits, but only to counties that immediately abut the state where the wetland is located. *Id.* at 226–28. For instance, the agencies would count benefits in York County from cleaner wetlands along the Catawba-Wateree River Basin in North Carolina, while at the same time assuming that households in Chester, Fairfield, Kershaw, Sumter, and Richland Counties (and the rest of South Carolina) derive zero benefit from those protections. This limit is no less arbitrary than cutting off benefits at the state line. In fact, households as distant as 640 miles from a water body benefit from its preservation—usually far more than one county into the neighboring state. Kling Report at 6. Thus, the agencies’ sensitivity analysis continues to greatly undervalue wetlands services. *Compare* EA at 227 tbl. F-1 (reporting

forgone benefits of \$67 million under Scenario 3, a 22% increase from primary analysis of \$55 million) *with* Whitehead Report at 10 (explaining that proper geographic scope increases forgone benefits roughly five-fold). By “treat[ing] similarly-situated areas . . . differently and draw[ing] conflicting conclusions from the same data,” the agencies exhibit “the hallmark of arbitrary agency action.” *Clean Wisc. v. EPA*, No. 18-1203, 2020 WL 3886197, at \*10 (D.C. Cir. July 10, 2020).

Ultimately, while there may be “a range of values” for wetlands’ interstate benefits—including those more than one county beyond the state border—the value is “certainly not zero.” *Ctr. for Biological Diversity*, 538 F.3d at 1200. The agencies err by assuming otherwise, arbitrarily minimizing the Rule’s harms while dismissing science on the critical services wetlands provide.

## **2. The Agencies Grossly Underestimate Wetlands’ In-State Benefits**

Because the agencies irrationally disregard the interstate benefits of wetlands, they consider only the harms of wetlands degradation to in-state residents. But here, too, they severely undervalue the Rule’s harms.

To monetize harms, the agencies commissioned a study that, through a review of economic literature, calculated a per-acre value for wetlands loss per household. *See* Klaus Moeltner, et al., *Waters of the United States: Upgrading Wetland Valuation Via Benefit Transfer*, 164 *Ecological Econ.* 106,336 (2019) (“Moeltner Study”),<sup>17</sup> *cited in* EA at 207–10. The agencies then apply that value to monetize the harm of degraded wetlands in each state to that state’s residents. In calculating those state-level values, the agencies commit at least three major errors.

First, the agencies ignore the unique benefits that wetlands provide to local residents. While wetlands have wide-ranging impacts on distant downstream waters, as detailed above, they can

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<sup>17</sup> The agencies uploaded an unpublished version of this same paper to record, available at <https://www.regulations.gov/document?D=EPA-HQ-OW-2018-0149-0031>. Pincites in this brief are to the published version.

also provide unique benefits at the local level, such as attenuating flooding and serving as a rearing habitat for fish. Connectivity Report at 4-1 to 4-2. Unsurprisingly, therefore, individuals who live close to a particular wetland value that wetland the most. The agencies' commissioned study indeed reported that residence in close proximity to a wetland greatly increases one's valuation of its preservation. EA at 209 (reporting value of "local" and other variables).

Yet the agencies completely ignore these impacts when estimating the harm that in-state residents will suffer. In doing so, they irrationally assume that *no* in-state residents live near any degraded wetland, allowing them to totally disregard the unique local benefits that wetlands provide. EPA & Army Corps of Engineers, The Navigable Waters Protection Rule – Public Comment Summary Document, Topic 11: Economic Analysis and Resource and Programmatic Assessment 80 (2020) ("Response to Comments").<sup>18</sup> The agencies' explanation for this exclusion—that "the majority [of] the affected households are likely to be non-local," *id.*—is illogical. Even if most individuals will not live near a degraded wetland, the additional valuation from local residents is still likely substantial. Again, while there may be some variation in the exact amount, the proper value is "certainly not zero." *Ctr. for Biological Diversity*, 538 F.3d at 1200.

Second, the agencies improperly minimize the long-term harms of wetlands degradation. Whereas the costs of wetlands mitigation are one-time, the benefits are indefinite. To compare forgone costs and benefits across these different time scales, the agencies convert the annualized willingness-to-pay values for wetlands preservation into cumulative values representing lump sum willingness-to-pay. They do this conversion by multiplying by 4.4.<sup>19</sup> In other words, the agencies assume that the harm suffered over 20 years from the loss of a wetland, EA at 123 (providing scope

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<sup>18</sup> Available at <https://www.regulations.gov/document?D=EPA-HQ-OW-2018-0149-11574>.

<sup>19</sup> See Moeltner Study at 8 (reporting "lumpsum" variable); EA at 210 (explaining that agencies activated "lumpsum" variable when converting to a "one-time annual value").

of analysis as “20 years”), is just 4.4 times greater than the harm suffered in one year from that same loss. This is clearly erroneous and vastly undervalues the harm of wetlands degradation.

The common economic process of discounting—which “adjust[s] . . . for differences in timing” by converting future monetary amounts into present value, Circular A-4 at 32—confirms the absurdity of the 4.4 multiplier. Agencies typically use annual discount rates of 3% and 7%. *Id.* at 33. Converting annual to cumulative values using those standard rates reveals that the cumulative value of wetlands degradation is approximately 11–15 times the annual value,<sup>20</sup> far higher than 4.4. In fact, the agencies’ 4.4 multiplier implies an unheard-of annual discount rate of nearly 23%,<sup>21</sup> which is not “ever[] used to support a . . . regulation” and represents “cavalier treatment” of this impact, *Corrosion Proof Fittings v. EPA*, 947 F.2d 1201, 1223 (5th Cir. 1991) (discussing agency’s use of another economic value); *see also id.* at 1218 (explaining that agency cannot “discount costs or benefits . . . unreasonabl[y]”). Indeed, the agencies follow standard discounting practices when estimating the Rule’s cost savings. *See, e.g.*, EA at 123. By minimizing long-term forgone benefits while appropriately discounting long-term cost savings, the agencies fail “to preserve an apples-to-apples comparison” of these impacts, *Corrosion Proof Fittings*, 947 F.2d at 1218, further tipping the scales to make the Rule appear net-beneficial.

Third, the agencies reduce the benefits of wetlands for in-state residents through a mathematical trick. The commissioned study found that individuals place a greater value on each acre of wetlands as the total acreage of wetlands increases. *See* Moeltner Study at 9 (reporting “convexity of the [willingness-to-pay] function”). Accordingly, individuals suffer more when

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<sup>20</sup> To arrive at this calculation, as noted above, we simply add a set value over 20 years, discounting future years at 3% and 7%. Using a 3% discount rate, the cumulative value is about 15 times the annual value. Using a 7% discount rate, the difference is about 11 times.

<sup>21</sup> When discounting over an indefinite period, the cumulative value multiplier is the inverse of the discount rate. Since  $1/0.227=4.4$ , this means that the agencies imply a discount rate of 22.7%.

wetlands are degraded in areas with greater wetlands acreage versus less acreage, since people in areas with larger wetlands place a greater per-acre value on wetlands. Thus, the “baseline” acreage used in the analysis—that is, the assumed acreage starting point, prior to any degradation—can significantly affect the assessment of forgone benefits. Yet in calculating the harms from wetlands losses per state, the agencies assume an unreasonably low baseline acreage, significantly and arbitrarily diminishing their estimate. Specifically, the agencies assume a per-state baseline acreage of 10,000. EA at 210. This is a gross underestimate: Most states have well beyond 10,000 acres of wetlands. Alaska, in fact, alone has 175 million acres. Howard & Shrader Report at 10.

The agencies cannot justify a baseline so divorced from real-world conditions. The agencies explain that they set the baseline at 10,000 because that is the median acreage of wetlands in the underlying studies assessed, and they wished to “avoid prediction out of sample.” Response to Comments at 81. But experts recommended more realistic baselines that still fall within the sample of baseline values in the literature, such as using the mean acreage (40,000) from the underlying studies, Howard & Shrader Report at 10, or the baseline value in those studies that most closely resembles real-world acreage (220,000), Mullen Report at 19. And as these reports explain, the median 10,000 value that the agencies use provides an “inappropriate[ly] . . . low value,” *id.*, that is unrepresentative of the underlying economic research and “not an appropriate choice,” Howard & Shrader Report at 10. Given its lack of “concurrence [with] reality,” the agencies’ reliance on this value is not “reasonable in context.” *See Am. Petroleum Inst. v. EPA*, 862 F.3d 50, 69 (D.C. Cir. 2017), *modified on reh’g*, 883 F.3d 918 (2018).

According to one expert’s analysis, setting this low baseline acreage obscures more than \$1.2 billion in annual harms caused by the Rule. Mullen Report at 32 (reporting \$1.65 billion in forgone benefits with a corrected baseline). By arbitrarily reducing the harms that in-state residents

suffer from wetlands loss, the agencies “opportunistically frame[] the costs . . . of the rule.” *Bus. Roundtable v. SEC*, 647 F.3d 1144, 1148–49 (D.C. Cir. 2011).

### **3. The Agencies’ Assumption that States Will Preserve Waters Losing Federal Protection Is Speculative and Overlooks Key Considerations**

The agencies also inappropriately minimize the Rule’s harms under Section 404 through unsupported assumptions about state gap-filling.

The agencies suggest that many of the Rule’s otherwise expected harms may not actually come to pass because states will preserve many of the wetlands losing federal protection. This obscures their assessment of the Rule’s impacts. For instance, in their quantitative analysis, the agencies conclude that the Rule’s purported cost savings more clearly outweigh forgone benefits as states are assumed to fill the void. EA at xxiii. And in their qualitative assessment, the agencies repeatedly suggest that harms will be mitigated by state gap-filling. *Id.* at 58–59, 62. But suppositions about state gap-filling are fanciful, fail to account for numerous countervailing considerations, and ignore the findings of the agencies’ own analysis.

Agencies cannot rely on “speculation . . . not supported by the record,” *Ariz. Cattle Growers’ Ass’n v. U.S. Fish & Wildlife*, 273 F.3d 1229, 1244 (9th Cir. 2001)—an important principle enshrined in EPA’s own guidelines. Specifically, EPA guidelines provide that a cost-benefit analysis may account for rules that are “currently under consideration,” but should not speculate about future rulemakings that are neither “imminent” nor can be “anticipated with a high degree of certainty.” EPA, *Guidelines for Preparing Economic Analyses* 5-2, 5-13 (2010).<sup>22</sup> As EPA recently explained to justify a different rule, this “normal practice . . . to only . . . [account for] final regulatory actions” ensures that speculative predictions do not cloud the analysis. 84 Fed.

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<sup>22</sup> Available at <https://www.epa.gov/environmental-economics/guidelines-preparing-economic-analyses>.

Reg. 56,058, 56,079 (Oct. 18, 2019). Yet here, the agencies inappropriately speculate that certain states may “choose to change [their] programs” in response to the Rule. EA at 39.

The agencies also ignore concrete evidence that it is unlikely that those state regulations will be issued. That evidence falls into three categories. First, states are unlikely to fill the regulatory gap because they have “little incentive” to prohibit “pollution across state lines.” Policy Integrity Comments at 10–11; *see also EPA v. EME Homer City Generation, L.P.*, 572 U.S. 489, 495 (2014) (explaining that since “pollution emitted in one State . . . caus[es] harm in other States,” states will typically underregulate pollution when “[l]eft unregulated”). Indeed, a key purpose of the Clean Water Act is to “protect[] downstream States from out-of-state pollution that they cannot themselves regulate,” *Rapanos*, 547 U.S. at 777 (Kennedy, J., concurring), and that upstream states are incentivized to under-regulate. The agencies assume away this reality.

Second, states are unlikely to fill the gap because state-by-state regulation can be very costly and loses out on the economies of scale of federal regulation. Many states may lack the resources to effectively protect their own waters. For example, Michigan—one of only two states to administer its own Section 404 program—generates permit fees covering less than 20% of the program’s cost. Attorneys General of New York et al., Comment Letter to Revised Definition of “Waters of the United States” A-12 (Apr. 15, 2019).<sup>23</sup> As fifteen state attorneys general advised the agencies, filling the regulatory gap would require states to “commit a substantial amount of state money” or “impose extremely high permit application fees to recover those costs from the regulated community,” either of which “would impose a substantial burden.” *Id.*

Third, numerous states have staunchly opposed additional clean-water protections in the recent past. Indeed, thirty-two states sued to enjoin the Clean Water Rule in 2015, 85 Fed. Reg. at

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<sup>23</sup> Available at <https://www.regulations.gov/document?D=EPA-HQ-OW-2018-0149-5467>.

22,258 n.15, arguing that the rule’s modest expansion of federal jurisdiction would “burden the States with substantial unrecoverable costs,” *see* States’ Memorandum in Support of Motion for Preliminary Injunction 10, *North Dakota v. EPA*, 127 F. Supp. 3d 1047 (D.N.D. 2015). Yet despite this demonstrated antipathy to sensible clean-water controls, the agencies now assume that fifteen of those same states may fill the regulatory gap left by the Rule.<sup>24</sup> *Compare* 85 Fed. Reg. at 22,258 n.15 *with* EA at 39–41. There is little basis for this assumption.

The agencies’ failure to consider these three factors is especially confounding given that the agencies surveyed the literature on environmental federalism and found that state-by-state regulation tends to “yield inefficiently weak regulations” and that decentralization works best when there is “no transboundary pollution,” which is not the case here. EA at 34–35. Yet the agencies ignore most of the relevant considerations identified by their review. *Compare* Per G. Fredriksson, *Environmental Federalism: Lessons Learned from the Literature* 15 (2018)<sup>25</sup> (identifying seventeen considerations) *with* EA at 40–41 (considering only three factors).

In short, the agencies’ claim that states will preserve the waters losing protection under the Rule lacks a reasonable basis. Because courts only defer to an agency’s “predictive judgments . . . so long as they are reasonable,” *Burlington N. & Santa Fe Ry. v. STB*, 526 F.3d 770, 781 (D.C. Cir. 2008) (internal quotation marks omitted), the agencies’ inappropriate assumptions about state gap-filling supply another reason why their analysis is insufficient.

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<sup>24</sup> This figure includes both Category 2 states—which may “change state programs” to boost coverage—and Category 3 states, which are “likely” to continue current regulatory programs which “may already regulate beyond” what was required prior to this Rule. EA at 46. But the fact that a Category 3 state may have offered some protection beyond what federal law required prior to this Rule hardly means that the state will completely fill the regulatory gap that this Rule leaves.

<sup>25</sup> Available at <https://www.regulations.gov/document?D=EPA-HQ-OW-2018-0149-0011>.

## **B. The Agencies' Case Study Estimates Are Fundamentally Flawed**

The agencies also evaluate the costs and benefits of wetlands degradation through “case studies” of three watersheds, but these case studies suffer from similar errors as the nationwide analysis,<sup>26</sup> and again arbitrarily minimize the costs of wetlands degradation.

The case studies also have their own unique errors. To conduct the analysis in the case studies, the agencies rely on a single economic paper, written by Dr. John C. Whitehead and Dr. Glenn C. Blomquist in 1998.<sup>27</sup> EA at 121. Yet as one of that study’s authors—Dr. Whitehead—advised the agencies in regulatory comments, the agencies misapply the study to devalue wetlands services. Despite this plea, the agencies continue to misapply Dr. Whitehead’s work, again evincing “a complete failure to reasonably reflect upon the information contained in the record,” *Sierra Club*, 899 F.3d at 293.

For instance, the agencies “biase[d] . . . benefits downward” by using the *median* valuation reported in Dr. Whitehead’s study, even though Dr. Whitehead explained that the *mean* valuation supplies the “appropriate measure.” Whitehead Report at 14; *see also* Howard & Shrader Report at 10 (median generally “not an appropriate choice”). Because the mean wetlands benefit identified by the Blomquist & Whitehead Study is “at least[] 3.25 times larger than” the study’s “median . . . estimates,” the agencies’ disregard for this valuation—against Dr. Whitehead’s sound advice — results in a drastic underestimate of wetlands benefits. Whitehead Report at 13–14.

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<sup>26</sup> Just like with the nationwide analysis, the case studies rely on inappropriate assumptions about state gap-filling, *see, e.g.*, EA at xx–xxi, and falsely assume that only residents in-state and in certain neighboring counties are harmed by wetlands degradation, *id.* at 121.

<sup>27</sup> Glenn C. Blomquist & John C. Whitehead, *Resource Quality Information and Validity of Willingness to Pay in Contingent Valuation*, 20 Res. & Energy Econ. 179 (1998) (“Blomquist & Whitehead Study”).

The agencies also apply an inappropriately narrow timeframe, falsely assuming that individuals suffer the harms of wetlands degradation only in the year in which the degradation occurs. EA at 121 (reporting that agencies derive “annual forgone benefits” by using lumpsum values from the Blomquist & Whitehead Study, without accounting for timing difference). This is mistaken. As the Blomquist & Whitehead Study reported, individuals suffer from wetlands degradation not just in the year when the wetlands are lost, but also “each year” thereafter. Blomquist & Whitehead Study at 186 n.4. This makes sense, since, as discussed above, the downstream benefits that wetlands provide do not stop when the calendar turns. By irrationally assuming that harm from wetlands loss is one-time rather than cumulative, the agencies devalue the reported cost of their case studies by up to 15 times. *See supra* at 17 (calculating long-term forgone benefits using proper discounting). And since this error compounds with the error that Dr. Whitehead identified, this means that the agencies devalued social costs in their case studies by about 98%<sup>28</sup>—falsely presenting the case studies as net beneficial.

Ultimately, the case studies—like the national analysis—betray basic misunderstandings about the benefits of wetlands services and fail to reasonably capture the Rule’s harms.

#### **IV. In Stark Contrast to Their Treatment of Forgone Benefits, the Agencies Substantially Overestimate Compliance-Cost Savings**

While drastically undercounting the Rule’s forgone benefits, the agencies take the opposite approach to the Rule’s cost savings, inflating these savings with little explanation. The agencies’ cursory and inconsistent assessment of the Rule’s compliance-cost savings—which they tout as a

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<sup>28</sup> For this calculation, we multiply 3.25 (the devaluation factor from the use of the median valuation) and 15 (the factor from the use of the wrong timeframe) to determine that, through these two errors, the agencies are undervaluing wetlands benefits by over 48 times.

regulatory benefit, 85 Fed. Reg. at 22,269 (stating that the Rule will “ease administrative burdens”)—further renders the Rule arbitrary and capricious.

The agencies quintupled their per-acre mitigation-cost estimates from the Clean Water Rule, without explaining the sudden reversal. When assessing the Clean Water Rule’s impacts in 2015, the agencies used available data to catalogue mitigation costs, *see* 2015 EA at 40–41, projecting that the rule would preserve an additional 3,781 acres of wetlands annually, *id.* at 41, at mitigation costs of \$89–\$249 million, *id.* at xi. Thus, the agencies estimated per-acre mitigation costs of \$24–\$66 thousand. But in the Rule, the agencies greatly increase this valuation without explanation. Under Scenario 0, the agencies estimate that the Rule will result in 1,486 annual degraded acres with mitigation cost savings of \$217–\$486 million. EA at 174–75. On a per acre basis, this comes out to \$146–\$327 thousand—yielding a high-end estimate nearly five times the Clean Water Rule’s high-end estimate of mitigation costs. This change alone makes the Rule appear net beneficial—even without correcting for the agencies’ other methodological errors.

This increase is reflected in the agencies’ estimates for nearly every state. In Washington, for instance, the agencies estimate high-end mitigation costs at \$1.148 million per wetlands acre—an increase of \$800,000 over their 2015 estimates. And in Oregon, the agencies increase their high-end mitigation-cost estimates per linear foot from \$343 in 2015 to a whopping \$84,069 in the Rule—an over 240-fold increase. *Compare id.* at 218 tbl. E-3 *with* 2015 EA at 65. As a result, Oregon accounts for almost 9% of estimated cost savings despite having only 1% of affected wetlands and 0.1% of affected streams. *Compare* EA at 218 tbl. E-3 *with id.* at 214 tbl. E-1.

And yet, the agencies offer little explanation or justification for this change, stating generically and without further explanation that they “updated mitigation costs per acre and linear foot for each state.” Response to Comments at 94. This minimal explanation falls well short of the

“reasoned explanation” necessary to “disregard[] facts and circumstances that underlay” the Clean Water Rule. *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515–16 (2009).<sup>29</sup> Because the agencies “failed to identify or explain any changed circumstances, technology, or economic conditions that would justify this dramatic recalculation” of compliance costs, their “new and inflated calculations” lack a reasonable basis. *California v. Bernhardt*, No. 18-cv-05712, at \*38.

The agencies cannot “inconsistently and opportunistically frame[] the costs and benefits of the rule” in this fashion. *Bus. Roundtable*, 647 F.3d at 1148–49. Since agencies “cannot put a thumb on the scale by undervaluing the benefits and overvaluing the costs of more stringent standards,” *Ctr. for Biological Diversity*, 538 F.3d at 1198, this lopsided analysis cannot stand.

## CONCLUSION

For the forgoing reasons, this Court should grant Plaintiffs’ motion for summary judgment.

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Respectfully submitted,

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<sup>29</sup> If anything, mitigation costs have likely decreased over time due to the expansion of mitigation banks and other market approaches to Sec. 404 compliance. Policy Integrity Comments at 31–32.

<sup>30</sup> Counsel gratefully acknowledges Sam Smith and Felix Zhang, students in NYU School of Law’s Advanced Regulatory Policy Clinic, for assisting in the preparation of this brief.