

THE EUROPEANIZATION OF THE GREAT LAKE STATES' WETLANDS LAWS AND REGULATIONS (AT THE EXPENSE OF AMERICANS' CONSTITUTIONALLY PROTECTED PRIVATE PROPERTY RIGHTS)

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ABSTRACT

The wetlands, floodplains, inland waterway, and soil erosion and sedimentation control provisions of Michigan's Natural Resources Environmental Protection Act (NREPA) and implementing regulations, and the NREPA enforcement and monitoring practices of the Michigan Department of Environmental Quality, and the Michigan Department of Natural Resources have effectively been "Europeanized" at the expense of the constitutionally protected private property rights of Michigan's hydroelectric dam owner/operators, farmers, and other landowners. Their Europeanization was the natural consequence of international agreements and initiatives covering the Great Lakes that incorporate international legal and scientific norms and standards such as Europe's precautionary principle, ecosystem-based management, marine spatial planning, and weight-of-the-evidence standards.

One such international agreement is the Canada–U.S. Great Lakes Water Quality Agreement (GLWQA). Little is publicly known

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about the GLWQA, its most recent 2012 amendment, and the other transborder agreements reached and initiatives pursued by the national governments of Canada and the United States and by the governments of the Canadian provinces and the eight U.S. states bordering the Great Lakes. These initiatives include inter alia the Great Lakes Regional Collaboration (GLRC) and the Great Lakes Restoration Initiative (GLRI). Even less is known about how these agreements and initiatives incorporate the legal and scientific norms noted above which are championed by the European and global environmental movements now anchored in the United Nations (U.N.) Commission on Sustainable Development (CSD) and the United Nations Environment Programme (UNEP). These programs spawned the design, implementation, and enforcement of strict liability environmental legal regimes currently applicable in the eight Great Lakes States that are anathema to the exercise of constitutionally protected private property rights.

This Article will identify the relationship between these agreements and initiatives and the strict liability environmental (NREPA) legal regime they have spawned in the Great Lakes State of Michigan. It also will explain how that regime is anathema to the exercise by Michigan’s hydroelectric dam owner/operators, farmers, and other landowners of their constitutionally protected private property rights.

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INTRODUCTION

It is readily apparent that the unique constitutional republic that was formed on September 17, 1787,¹ at the Constitutional Convention in Philadelphia, Pennsylvania, grounded in a decentralized constitution-based framework with a federal government established to serve *We the People* has since devolved into an unaccountable runaway administrative state quickly approaching those of continental Europe.² The runaway administrative state is rooted in the New Deal policies of the 1930s, which arguably arose as a compromise between the Socialist, Communist, Progressive, Populist, and Labor Parties that had then threatened to destabilize the nation in the wake of the Great Depression.³ The ‘statist’ conception of legal rights that thereafter evolved has since effectively been touted through revisionist rebranding as the ‘silver bullet’ that saved capitalism.⁴ The administrative state has been further enabled by unthoughtful (or thoughtful) judicial deference on both sides of the political aisle to federal agency determinations presumed to be anchored in dispassionate technical expertise rather than political agenda, such that

1. See *The Constitution: How Did it Happen?*, U.S. NAT’L ARCHIVES, <https://www.archives.gov/founding-docs/constitution/how-did-it-happen> [<https://perma.cc/H9V7-2BKD>] (last visited Oct. 30, 2019).

2. See *id.* (supplementing this framework on December 15, 1791, by ten amendments affirmatively guaranteeing natural rights-based individual liberty, known as the Bill of Rights); see also Roger Pilon, *Declaration of Independence, U.S.*, in INTERNATIONAL ENCYCLOPEDIA OF THE SOCIAL SCIENCES, 254–55 (William A. Darity ed., 2d ed. 2008); see, e.g., Adam Candeub, *Transparency in the Administrative State*, 51 HOUS. L. REV. 385, 386 (2013); Richard Epstein, *The Perilous Position of the Rule of Law and the Administrative State*, 36 HARV. J.L. & PUB. POL’Y 5, 18 (2013); Richard Epstein, *Why the Modern Administrative State Is Inconsistent with the Rule of Law*, 1 N.Y.U. J.L. & LIBERTY 491, 508 (2008); Jessica Mantel, *Procedural Safeguards for Agency Guidance: A Source of Legitimacy for the Administrative State*, 61 ADMIN. L. REV. 343, 347 (2009). See generally THE DECLARATION OF INDEPENDENCE (U.S. 1776).

3. See generally Seymour Martin Lipset & Gary Marks, *How FDR Saved Capitalism*, HOOVER INSTITUTION (Jan. 30, 2001), <https://www.hoover.org/research/how-fdr-saved-capitalism> [<https://perma.cc/57TP-8GW5>].

4. See Jerry Mashaw, “Rights” in the *Federal Administrative State*, 92 YALE L.J. 1129–73 (1983); see also John Hardman, *The Great Depression and the New Deal*, EDGE, https://web.stanford.edu/class/e297c/poverty_prejudice/soc_sec/hgreat.htm [<https://perma.cc/5L7C-JNRE>] (last updated July 26, 1999); Louis Menand, *How the Deal Went Down*, THE NEW YORKER (Mar. 4, 2013), <https://www.newyorker.com/magazine/2013/03/04/how-the-deal-went-down> [<https://perma.cc/Y66Z-YA8Z>].

the rule of law and the fiber of the United States Constitution and the Bill of Rights are now seriously threatened.⁵

Indeed, U.S. Supreme Court Chief Justice John Roberts, joined in his dissenting opinion by Justices Kennedy and Alito in *City of Arlington v. Federal Communications Commission*, a case involving review of the *Chevron* doctrine, observed how administrative agencies today

as a practical matter . . . exercise legislative power, . . . executive power[,] . . . and judicial power, [and how the] accumulation of these powers in the same hands is not an occasional or isolated exception to the constitutional plan[, but rather,] a central feature of modern American government. The administrative state “wields vast power and touches almost every aspect of daily life.” The Framers could hardly have envisioned today’s “vast and varied bureaucracy” and the authority administrative agencies now hold over our economic, social, and political activities. “[T]he administrative state with its reams of regulations would leave them rubbing their eyes.” And the federal bureaucracy continues to grow⁶

In their dissenting opinion, these Justices could not help but to cite to Founding Father James Madison, who correctly stated in *Federalist* No. 47 that the “accumulation of all powers, legislative, executive, and judiciary, in the same hands . . . may justly be pronounced the very definition of tyranny.”⁷

These same Justices in *Perez v. Mortgage Bankers Association*, in three separate concurring opinions, first expressed their desire to revisit the U.S. Supreme Court’s prior precedents resulting in federal courts’ near-reflexive deference to what they believed was U.S. agency expertise.⁸ Justices Alito, Scalia, and Thomas authored rather strongly worded concurring opinions expressing their admonition and disdain for federal courts’ frequent deference and consequent transfer

5. See Richard Faulk, *America’s Administrative State: Tracking the Origins and Consequences of Judicial Deference to Federal Agencies* (Wash. Legal Found. Critical Legal Issues Working Paper Series, Working Paper No. 196, 2016); Gregory Jacob & Lynsey Ramos, *Judicial Review of Informal Agency Pronouncements: Any Clearer After Young v. UPS and Perez v. MBA?* (Wash. Legal Found. Vol. 30, Legal Backgrounder No. 16, 2015); Jeffrey Wall & Owen Wolfe, *Why ‘Chevron’ Deference for Hybrid Statutes Might Be a No-No* (Wash. Legal Found. Vol. 25, Legal Opinion Letter No. 16, 2016).

6. *City of Arlington v. FCC*, 569 U.S. 290, 312–13 (2013) (Roberts, C.J., dissenting) (citations omitted).

7. *Id.* at 312.

8. See *Perez v. Mortg. Bankers Ass’n*, 135 S. Ct. 1199, 1210 (2015) (Alito, J., concurring); *id.* at 1211 (Scalia, J., concurring); *id.* at 1213 (Thomas, J., concurring).

of judicial power to executive agencies' interpretations of their own regulations.⁹ These Justices also expressed alarm concerning Congress's ongoing delegation of lawmaking authority to executive agencies.¹⁰ In their opinion, the judicial and legislative branches' deference to Article II institutions had largely contributed to the rapid expansion of the administrative state and the aggrandizement of administrative agency power.¹¹

Arguably, the U.S. Supreme Court's recent grants of certiorari (cert) give credence to those opinions.¹² In *PDR Network, LLC v. Carlton & Harris Chiropractic, Inc.*, cert was granted based on the following legal question: "[W]hether the Hobbs Act required the

9. See *id.* at 1210 (Alito, J., concurring); *id.* at 1211 (Scalia, J., concurring); *id.* at 1213 (Thomas, J., concurring).

10. See, e.g., *id.* at 1210 (Alito, J., concurring).

11. See *id.* at 1210 (Alito, J., concurring) (referring to how the *Paralyzed Veterans of America* doctrine "may have been prompted by an understandable concern about the aggrandizement of the power of administrative agencies as a result of the combined effect of (1) the effective delegation to agencies by Congress of huge swaths of lawmaking authority, (2) the exploitation by agencies of the uncertain boundary between legislative and interpretive rules, and (3) this Court's cases holding that courts must ordinarily defer to an agency's interpretation of its own ambiguous regulations"); see also *id.* at 1211 (Scalia, J., concurring) ("The [APA] was framed against a background of rapid expansion of the administrative process as a check upon administrators whose zeal might otherwise have carried them to excesses not contemplated in legislation creating their offices.' The Act guards against excesses in rulemaking by requiring notice and comment. Before an agency makes a rule, it normally must notify the public of the proposal, invite them to comment on its shortcomings, consider and respond to their arguments, and explain its final decision in a statement of the rule's basis and purpose. The APA exempts interpretive rules from these requirements. But this concession to agencies was meant to be more modest in its effects than it is today. For despite exempting interpretive rules from notice and comment, the Act provides that 'the reviewing court shall . . . interpret constitutional and statutory provisions, and determine the meaning or applicability of the terms of an agency action.' The Act thus contemplates that courts, not agencies, will authoritatively resolve ambiguities in statutes and regulations.") (citations omitted); *id.* at 1213 (Thomas, J., concurring) ("I write separately because these cases call into question the legitimacy of our precedents requiring deference to administrative interpretations of regulations. That line of precedents, beginning with *Bowles v. Seminole Rock & Sand Co.*, 325 U.S. 410 (1945), requires judges to defer to agency interpretations of regulations, thus, as happened in these cases, giving legal effect to the interpretations rather than the regulations themselves. Because this doctrine effects a transfer of the judicial power to an executive agency, it raises constitutional concerns. This line of precedents undermines our obligation to provide a judicial check on the other branches, and it subjects regulated parties to precisely the abuses that the Framers sought to prevent.").

12. See, e.g., *PDR Network, LLC v. Carlton & Harris Chiropractic, Inc.*, 139 S. Ct. 2051, 2053 (2019); *Kisor v. Wilkie*, 139 S. Ct. 2400, 2408 (2019).

District Court [in this case] to accept [the] FCC’s legal interpretation of the [Telephone Consumer Protection Act].”¹³ At least one legal commentator believes this case will have significant implications beyond the FCC because the Hobbs Act, also known as the Administrative Procedure Act, “provides a mechanism for judicial review of certain administrative orders.”¹⁴ This Act predates and is at tension with the *Chevron* doctrine, which requires lower courts to defer to an agency’s ruling on an issue on which a statute is silent or ambiguous.¹⁵

The Supreme Court issued its ruling in *PDR Network, LLC* on June 20, 2019, holding that the extent to which a final agency action warrants deference from lower federal courts will depend on the resolution of two sets of preliminary questions.¹⁶ First, it must be determined whether the final agency action (e.g., the 2006 FCC Order) was “the equivalent of a ‘legislative rule’” or “an ‘interpretative rule,’” the former but not the latter of which has the force and effect of law.¹⁷ Thus, an interpretative rule “may not be binding on a district court, and a district court therefore may not be required to adhere to it.”¹⁸ Second, it must be determined whether the litigant “ha[d] a ‘prior’ and ‘adequate’ opportunity to seek judicial review of the Order” within the statutory scheme in question.¹⁹ The concurring opinions of Justices

13. *U.S. Supreme Court Balks on Judicial Deference to FCC in TCPA Case*, JDSUPRA (June 26, 2019), <https://www.jdsupra.com/legalnews/u-s-supreme-court-balks-on-judicial-82106/> [<https://perma.cc/3SHF-7X79>]; see also *PDR Network*, 139 S. Ct. at 2053; SCOTUSBLOG, <http://www.scotusblog.com/case-files/cases/pdr-network-llc-v-carlton-harris-chiropractic-inc> [<https://perma.cc/7MGB-JQMZ>] (last visited Sept. 19, 2019).

14. Artin Betpera, *Breaking Down the Supreme Court’s Grant of Certiorari to Consider Whether the Hobbs Act Requires District Courts to Follow the FCC’s TCPA Rulings*, NAT’L L. REV. (Nov. 14, 2018), <https://www.natlawreview.com/article/deference-dimension-breaking-down-supreme-court-s-grant-certiorari-to-consider> [<https://perma.cc/2AJV-2XPC>].

15. *Id.*

16. See *PDR Network*, 139 S. Ct. at 2053.

17. *Id.* at 2055 (citations omitted) (comparing how, because “legislative rule[s]” are “issued by an agency pursuant to statutory authority,” they have “the ‘force and effect of law,’” whereas, “an ‘interpretative rule’ . . . simply ‘advise[s] the public of the agency’s construction of the statutes and rules which [they] administer[]’ and lacks ‘the force and effect of law’”).

18. *Id.* (“[W]e say ‘may’ because we do not definitively resolve these issues here.”).

19. *Id.* (citing 5 U.S.C. § 703 (2012)). For example, if “the Hobbs Act’s exclusive-review provision . . . requir[ing] certain challenges to FCC final orders to be brought in a court of appeals ‘within 60 days after’ the entry of the order in question” did not afford the litigant a “‘prior’ and ‘adequate’ opportunity for judicial

Thomas and Gorsuch further emphasized that an agency’s “interpretati[on of] a statute does not ‘determine the validity’ of an agency order interpreting or implementing the statute” because only the court has the (Article III) power to make such a determination.²⁰

Cert was granted in *Kisor v. Wilkie* based on similar grounds, namely “whether the [Supreme] Court should overrule *Auer v. Robbins* [] and *Bowles v. Seminole Rock & Sand Co.*, [] decisions holding that courts must defer to an agency’s reasonable interpretation of its own ambiguous regulation.”²¹ As one legal commentator emphasized, although “[t]he *Kisor* case is not an environmental case, . . . the Supreme Court’s ruling could have significant impacts for environmental litigation. Enforcement actions, permitting processes, and other agency actions are all impacted by the deference agencies receive as a result of the *Auer* deference doctrine.”²²

The Supreme Court issued its ruling in *Kisor* on June 26, 2019, setting forth a roadmap effectively cabining the scope of *Auer* deference.²³ The Court held “[f]irst and foremost” that a court should not defer to an agency’s interpretation of its own ambiguous rules “unless the [agency] regulation is genuinely ambiguous.”²⁴ According to the Court, an ambiguity evaluation requires the exhaustion of “all

review of the Order,” then “it may be that the Administrative Procedure Act permits [the litigant] to challenge the validity of the Order in [an] enforcement proceeding even if the Order is deemed a ‘legislative’ rule.” *Id.* at 2056. The Court, again, went on to state that “[w]e again say ‘may’ because we do not definitively decide this issue here.” *Id.*

20. *Id.* at 2056 (Thomas, J., concurring) (“As I have explained elsewhere, ‘the judicial power, as originally understood, requires a court to exercise its independent judgment in interpreting and expounding upon the laws.’”).

21. Jerry Stouck et al., *Supreme Court to Decide If Courts Must Defer to an Agency’s Construction of Ambiguous Regulations*, NAT’L L. REV. (Apr. 18, 2019), <https://www.natlawreview.com/article/supreme-court-to-decide-if-courts-must-defer-to-agency-s-construction-ambiguous> [<https://perma.cc/7S59-EF3J>]; see also *Kisor v. Wilkie*, 139 S. Ct. 2400, 2408 (2019); SCOTUSblog, <http://www.scotusblog.com/case-files/cases/kisor-v-wilkie/> [<https://perma.cc/2LNY-D5GP>] (last visited Oct. 30, 2019).

22. Brooke M. Wahlberg, *U.S. Supreme Court Will Revisit Auer Deference*, LEXOLOGY (Dec. 11, 2018), <https://www.lexology.com/library/detail.aspx?g=1110a677-ec87-4ab6-befc-d5ef424a449a> [<https://perma.cc/7PUG-QG9>].

23. See *Kisor*, 139 S. Ct. at 2418 (explaining that *Auer* deference often does not apply).

24. *Id.* at 2415 (holding that, under *Auer* and *Bowles*, “[i]f uncertainty does not exist, there is no plausible reason for deference”).

the ‘traditional tools’ of construction.”²⁵ It engenders a careful review of “the text, structure, history, and purpose of a regulation, in all the ways it would if it had no agency to fall back on.”²⁶ Where a district court’s evaluation of an agency regulation leads it to conclude that genuine ambiguity remains, “the agency’s reading must still be ‘reasonable.’”²⁷ In addition, the district court “must make an independent inquiry into whether the character and context of the agency interpretation entitles it to controlling weight.”²⁸ This will depend on whether the agency’s regulatory interpretation is an “‘authoritative’ or ‘official position,’” as opposed to an “ad hoc statement not reflecting the agency’s views.”²⁹ Only an “official position,” one that emanates from the agency’s highest/head official (e.g., “the Secretary or his chief advisers”), is “published in the Federal Register,” is “approved by the agency head,” and/or is “understood to make authoritative policy in the relevant context,” will be entitled to controlling weight and, consequently, to judicial deference.³⁰ Furthermore, the Court held that “the agency’s interpretation must in some way implicate its substantive [or policy] expertise” relative to the expertise of the court in a given issue.³¹ The Court finally held that to receive *Auer* deference, “an agency’s reading of a rule must reflect ‘fair and considered judgment,’” rather than a convenient agency litigation position or a defense of a past agency practice, and must not “create[] ‘unfair surprise’ to regulated

25. *Id.* (quoting *Chevron U.S.A. Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837, 843 n.9 (1984)).

26. *Id.*

27. *Id.* (quoting *Thomas Jefferson Univ. v. Shalala*, 512 U.S. 504, 515 (1994)) (explaining how “the agency’s reading must fall ‘within the bounds of reasonable interpretation’” taking into consideration the regulation’s text, structure, history, and purpose).

28. *Id.* at 2416 (citations omitted).

29. *Id.*

30. *Id.* (citations omitted).

31. *Id.* at 2417.

parties.”³² In the end, a “court must assess whether the interpretation is of the sort that Congress would want to receive deference.”³³

The Clean Water Act (CWA), and especially those of its provisions interpreted by federal courts to protect wetlands, is one of the primary vehicles through which the administrative state has expanded since the 1970s.³⁴ Former Pennsylvania Congressman Tom Ridge put his finger on it when he explained in a 1993 *Erie Times* article what legal experts had come to realize was federal agency, rather than Congress, made wetlands law.³⁵

The gleanings by activist federal courts from unreliable snippets of legislative history of wetlands protection from a statute that did not refer to the term “wetlands” until the CWA’s 1977 amendments, and then only once in a single provision intended to delegate responsibility for CWA implementation to the States, has its roots in the environmental movements of the 1970s.³⁶ These movements were the result of the Nixon administration’s 1970 creation of the U.S. Environmental Protection Agency (USEPA) via Reorganization Plan No. 3,³⁷ its signing into law Congress’s 1972 revision of the Federal Water Pollution Control Act (the CWA 1977’s predecessor statute),³⁸

32. *Id.* at 2417–18 (citations omitted) (“That means . . . that a court should decline to defer to a merely ‘convenient litigating position’ or ‘*post hoc* rationalization’ advanced to ‘defend past agency action against attack.’” (quoting *Christopher v. SmithKline Beecham Corp.*, 567 U.S. 142, 155 (2012))); *see also id.* at 2418 (declaring “a court may not defer to a new interpretation, whether or not introduced in litigation, that creates ‘unfair surprise’ to regulated parties” and thus disrupt their reasonable expectations based on prior agency practice (quoting *Long Island Care at Home, Ltd. v. Coke*, 551 U.S. 158, 170 (2007))).

33. *Kisor*, 139 S. Ct. at 2424 (citation omitted).

34. *See* Lawrence A. Kogan, *Harmonizing ‘Converted Wetland’ Under the Clean Water Act and Food Security Act Would Reaffirm Congress’ Intent to Limit EPA and Army Corps 404 Jurisdiction*, 12 KY. J. OF EQUINE, AGRIC. & NAT. RESOURCE L. 2–7, 9–22, 31–51 (2019–2020).

35. *See* Bill McKinney, *Case for Wetlands Reform Proven by Erie Cases*, *ERIE TIMES*, Dec. 22, 1993 (“Over the years, through regulatory agency action and the courts, there developed a federal land use control policy which Congress never voted on and which no president ever signed into, law’ . . . ‘Congress has a job to do,’ [and] ‘[w]e have to bring rationality to a situation in which bureaucracies have run amok.’”) (citations omitted).

36. *See* Kogan, *Harmonizing ‘Converted Wetland’ Under the Clean Water Act and Food Security Act*, *supra* note 34, at 18–22, 44–51.

37. *See* Reorganization Plan No. 3 of 1970, 35 Fed. Reg. 15,623 (Oct. 6, 1970) (establishing the Environmental Protection Agency); *see also* EPA, Initial Organization of the EPA, Order No. 1110.2 (Dec. 4, 1970).

38. *See* Federal Water Pollution Control Act, Pub. L. No. 92-500, 86 Stat. 816 (1972).

and its execution of the first iteration of the Canada–U.S. Great Lakes Water Quality Agreement (GLWQA).³⁹ Former President Nixon clearly “recognized the huge political power of environmentalism, which blossomed into a popular movement just around the time of his election,” and “[p]oliticians, both Democratic and Republican, were falling over themselves to claim the mantle of environmental advocacy.”⁴⁰

Little is publicly known about the GLWQA and its most recent amendment. Likewise, little is publicly known about the other transborder agreements reached and the initiatives pursued by the national governments of Canada and the United States and by the governments of the Canadian provinces and the U.S. states bordering the Great Lakes. Two such initiatives that have arisen since the birth of the American environmental movement are the Great Lakes Regional Collaboration (GLRC) and the Great Lakes Restoration Initiative (GLRI).⁴¹ Even less is publicly known about how those North America-focused agreements and initiatives incorporate the legal and scientific norms now anchored in United Nations treaties and programs championed by the European and global environmental movements.⁴² These include the 1992 United Nations Commission on Sustainable Development and the United Nations Environment Programme,⁴³ which have since influenced the design,

39. See *Canada and U.S. Great Lakes Water Quality Agreement: Overview*, GOV'T CANADA, <https://www.canada.ca/en/environment-climate-change/services/great-lakes-protection/canada-united-states-water-quality-agreement/overview.html> [<https://perma.cc/8EC8-EKZ4>] (last modified July 28, 2017).

40. Meir Rinde, *Richard Nixon and the Rise of American Environmentalism*, SCI. HIST. INST. (June 2, 2017), <https://www.sciencehistory.org/distillations/magazine/richard-nixon-and-the-rise-of-american-environmentalism> [<https://perma.cc/4FSE-GELU>].

41. See GREAT LAKES REGIONAL COLLABORATION, GREAT LAKES REGIONAL COLLABORATION STRATEGY TO RESTORE AND PROTECT THE GREAT LAKES 1, 4 (2005).

42. See Lawrence A. Kogan, *Discerning the Forest from the Trees: How Governments Use Ostensibly Private and Voluntary Standards to Avoid WTO Culpability*, 2 GLOBAL TRADE & CUSTOMS J. 319, 321 (2007); see also D.J. PETERSON, *TROUBLED LANDS: THE LEGACY OF SOVIET ENVIRONMENTAL DESTRUCTION* (Westview Press, 1993); Chris Williams, *Marxism and the Environment: An Excerpt from the New Ecology and Socialism*, 72 INT'L SOCIALIST REV. (2010), <https://isreview.org/issue/72/marxism-and-environment> [<https://perma.cc/6LTJ-AFBJ>].

43. See U.N. SUSTAINABLE DEV. GOALS KNOWLEDGE PLATFORM, COMM'N ON SUSTAINABLE DEV., <https://sustainabledevelopment.un.org/intergovernmental/csd> [<https://perma.cc/BXD7-DCSW>]; see also Pamela S. Chasek, *The U.N. Comm'n on Sustainable Dev.: The First Five Years*, Prepared for Delivery at the United Nations University Conference “The United Nations and the Global Environment in the 21st

implementation, and enforcement of strict liability environmental laws and regulations in the eight Great Lakes States.

I. PRESIDENTIAL GREAT LAKES-RELATED POLICY FRAMEWORKS
2004–2016

A. Presidential Executive Order Creates Great Lakes Regional
Collaboration (GRLC)

On May 18, 2004, the White House issued Presidential Executive Order (E.O.) 13340: “Establishment of Great Lakes Interagency Task Force and Promotion of a Regional Collaboration of National Significance for the Great Lakes.”⁴⁴ The policy objective of this E.O. was “to support local and regional efforts to address environmental challenges and to encourage citizen community stewardship” and “to establish a regional collaboration to address nationally significant environmental and natural resource issues involving the Great Lakes.”⁴⁵ This E.O. established an Interagency Task Force *within the USEPA* which became known as the “Great Lakes Interagency Task Force.”⁴⁶

The Interagency Task Force was responsible for (1) helping to establish a collaborative process for the Task Force and Working Groups to develop policies, activities, and priorities for the Great Lakes system; (2) ensuring coordinated federal government and third party scientific research and actions; (3) coordinating federal policies, strategies, and projects for restoring and protecting the Great Lakes system; and (4) developing outcome-based goals and science-based indicators of water quality and related environmental factors.⁴⁷ The Task Force was *based in USEPA’s Great Lakes National Program Office*,⁴⁸ consisted of a number of federal agencies, reported to the

Century: From Common Challenges to Shared Responsibilities” (November 14–15, 1997); *About UN Environment*, U.N. ENV’T PROGRAMME, <https://www.unenvironment.org/about-un-environment> [<https://perma.cc/9RME-GZVH>] (last visited Oct. 30, 2019) (“The United Nations Environment Programme (UN Environment) is the leading global environmental authority that sets the global environmental agenda, promotes the coherent implementation of the environmental dimension of sustainable development within the United Nations system, and serves as an authoritative advocate for the global environment.”).

44. Exec. Order No. 13,340, 69 Fed. Reg. 29,043 (May 18, 2004).

45. *Id.*

46. *Id.*

47. *See id.*

48. *See id.*

President via the Council on Environmental Quality,⁴⁹ and established a Great Lakes Regional Working Group composed of representatives from the Task Force agencies.⁵⁰

In December 2004, a partnership comprised of federal, state, and local government officials and other stakeholders, known as the Great Lakes Regional Collaboration of National Significance (GLRC), was formed consistent with the Bush administration E.O.⁵¹ It was established for purposes of developing a strategic plan to restore and protect the Great Lakes ecosystems.⁵² This partnership consisted of “[e]ight Strategy Teams, each focusing on a different issue affecting the Great Lakes basin,” that accepted guidance from an “Executive Committee made up of senior elected and appointed officials.”⁵³ In December 2005, the GLRC Strategy was released to the public and posted to the website of the Conference of Great Lakes and St. Lawrence Governors and Premiers.⁵⁴

The GLRC Strategy set forth a number of recommendations.⁵⁵ They included habitat conservation and species management, which focused in part on reestablishing and preserving native fish communities, as well as wetlands and riparian (streams) habitats in Great Lakes tributaries by means of regulation and enforcement.⁵⁶ The GLRC objectives for these recommendations *inter alia* were (1) to ensure self-sustaining native and migratory fish and wildlife communities in open and nearshore waters consistent with the “Joint Strategic Plan for the Management of Great Lakes Fisheries”; (2) to “[r]estore or protect 550,000 acres of wetlands and associated uplands (1.1M acres)” through *enhancement of federal and states wetlands regulations and enforcement measures*; (3) to restore river and stream natural flow regimes to ensure connectivity between lakes, streams, rivers, wetlands, and connecting channels and floodplains and ensure “[b]arrier-free access to cold and warm water tributary spawning and

49. *See id.*

50. *See id.*

51. *See* GREAT LAKES REGIONAL COLLABORATION STRATEGY TO RESTORE AND PROTECT THE GREAT LAKES, *supra* note 41, at 1, 4.

52. *See id.*

53. *See id.*

54. *See id.*; *see also* *The Great Lakes Regional Collaboration*, GREAT LAKES ST. LAWRENCE GOVERNORS & PREMIERS, <http://www.gsgp.org/projects/protection-and-restoration/great-lakes-regional-collaboration/> [<https://perma.cc/55ZV-7FCA>] (last visited Oct. 30, 2019).

55. GREAT LAKES REGIONAL COLLABORATION STRATEGY TO RESTORE AND PROTECT THE GREAT LAKES, *supra* note 41, at 17–18.

56. *See id.* at 5.

nursery habitats . . . to sustain migratory fishes”; (4) to protect or restore 10,000 acres of high priority coastal and upland/inland habitats per year across the basin to control erosion and to ensure groundwater is recharged; and (5) to increase funding of habitat conservation and species management by \$288.7 million a year via increases in authorized funding and creation of new appropriations and authorizations.⁵⁷

In addition, the GLRC set forth recommendations to restore all forty-three areas of concern (AOCs) previously identified as “impaired” in the 1987 amendments to the Great Lakes Water Quality Agreement (GLWQA).⁵⁸ This impairment arose from contaminated sediments, sewage treatment plant discharges and combined sewer overflows, nonpoint source runoff, hazardous waste site runoff, and habitat degradation and destruction.⁵⁹ The GLRC emphasized amending, reauthorizing, and increasing funding to the Great Lakes Legacy Act in the amount of \$150 million “[o]ver the next five years” and expanding federal–state collaboration efforts to ensure execution of such recommendations.⁶⁰

Furthermore, the GLRC set forth recommendations to reduce or prevent nonpoint sources of pollution from nutrients, contaminants, pathogens, sedimentations, and altered flow regimes and to protect and restore Great Lakes basin wetlands.⁶¹ The GLRC’s ultimate goal was to “[m]easurably reduce at least hundreds of thousands of tons of sediment, pounds of phosphorous loading, and pounds of nitrogen loading [into] the Great Lakes basin,” focusing on the land development and agricultural sectors.⁶² The GLRC established for the Great Lakes basin the following milestones: (1) by 2010, protection, restoration, recovery of 550,000 acres of wetlands (consistent with habitat preservation goals); (2) by 2010, creation of 335,000 acres of new wetlands buffers; (3) by 2010, ensure residue management of two million new acres of cropland to ensure 40% soil loss (erosion) reduction; (4) by 2010, triple the number of certified nutrient management planning (CNMP) providers to assist farmers in the Great Lakes basin; (5) by 2015, protection, restoration, recovery of 450,000 additional wetlands acres; (6) by 2015, ensure residue management of 800,000 new acres of cropland; (7) by 2015, ensure 70% of all

57. *Id.* at 25–27.

58. *See id.* at 36.

59. *See id.*

60. *Id.* at 36–40.

61. *See id.* at 41–46.

62. *Id.* at 42–44.

livestock production in the U.S. portion of the Great Lakes basin is covered by certified, phosphorous-based CNMPs; and (8) by 2020, creation of 665,000 additional acres of new wetlands buffers.⁶³ The GLRC recommended \$1 billion of funding until 2020 to restore wetlands buffers.⁶⁴

Lastly, the GLRC recommended four actions to promote sustainable development or sustainability.⁶⁵ These include (1) adapting and maintaining dedicated state and federal funding (grant, loan, and subsidy) programs with adequate resources to promote sustainability across all “sectors of stakeholders”;⁶⁶ (2) aligning governance (laws and regulations) to enhance sustainable planning and resource management; (3) rebranding and publicizing the Great Lakes as a positive destination at which to work, live, and play; and (4) implementing the sustainable development strategy recommendations.⁶⁷ These recommendations were accompanied by an extensive sustainable development appendix.⁶⁸ The appendix, in part, defines “sustainable agriculture” and “sustainable forestry” practices⁶⁹ and barriers to said practices.⁷⁰ It also identifies principles of sustainable development for industrial activity and barriers to said practices,⁷¹ defines sustainable land use and barriers to said practices, identifies priority recommendations for achieving sustainable land use practices in the Great Lakes basin,⁷² assesses the status of water infrastructure needs, and identifies best water conservation practices and sources of funding to enhance water source protection.⁷³ The GLRC sustainable development team recommended *stricter* regulations to promote sustainable forestry⁷⁴ and to promote

63. *See id.*

64. *See id.* at 44 n.29.

65. *See id.* at 59–60.

66. *Id.* at 59–64. These stakeholders include federal, state, tribal, and local governments; private business; industry and manufacturing; and nongovernmental organizations (NGOs). *See id.* at 59; *see also* U.N. ENV’T PROGRAMME, HANDBOOK FOR STAKEHOLDER ENGAGEMENT 35 (2018).

67. *See* GREAT LAKES REGIONAL COLLABORATION STRATEGY TO RESTORE AND PROTECT THE GREAT LAKES, *supra* note 41, at 59–64.

68. *See* GREAT LAKES REGIONAL COLLABORATION, APPENDIX X: SUSTAINABLE DEVELOPMENT STRATEGY TEAM 1 (1999).

69. *See id.* at 3–4.

70. *See id.* at 2–17.

71. *See id.* at 18–23.

72. *See id.* at 24–45.

73. *See id.* at 70–80.

74. *See id.* at 16.

sustainable land use, development, planning, and building design.⁷⁵ It also recommended that USEPA utilize Clean Water federal–state collaboration and funding mechanisms to ensure water infrastructure updates and water source protection, including providing significant funding for nonpoint source pollution control and estuary protection.⁷⁶

B. Presidential Executive Order and Memorandum (Ocean Policy Task Force)

On July 19, 2010, the White House issued Presidential Executive Order (E.O.) 13547, “Stewardship of the Ocean, Our Coasts, and the Great Lakes,” the policy objective of which was the environmental protection, maintenance, and restoration of the nation’s ocean, coastal, and Great Lakes ecosystems, which “is intrinsically linked to environmental sustainability.”⁷⁷ To achieve this policy objective, the E.O. expressly “adopt[ed] the recommendations of the Interagency Ocean Policy Task Force” (i.e., the Final Recommendations), which had been established pursuant to a prior presidential memorandum.⁷⁸ E.O. 13547 “direct[ed] executive agencies to implement those recommendations under the guidance of a National Ocean Council.”⁷⁹

C. Ocean Policy Task Force Final Recommendations

The Final Recommendations of the former Obama administration Ocean Policy Task Force called for the United States to ensure *inter alia* the protection, maintenance, and restoration of the Great Lakes ecosystems and resources and to bolster the conservation and sustainable uses of land in ways that will improve the health of the Great Lakes ecosystems.⁸⁰ “The National Policy recognizes that America’s stewardship of the ocean, our coasts, and the Great Lakes is intrinsically and intimately linked to environmental sustainability”⁸¹ The United States committed to promoting the objectives of

75. *Id.* at 27, 33, 37, 41, 43.

76. *Id.* at 76–80.

77. Exec. Order No. 13,547, 75 Fed. Reg. 43,023 (July 19, 2010).

78. OFFICE OF THE PRESS SEC’Y, MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES, NATIONAL POLICY FOR THE OCEANS, OUR COASTS AND THE GREAT LAKES (2009).

79. Exec. Order No. 13,547.

80. *See* WHITE HOUSE COUNCIL ON ENVTL. QUALITY, FINAL RECOMMENDATIONS OF THE INTERAGENCY OCEAN POLICY TASK FORCE § III, at 14–15 (2010) [hereinafter WHITE HOUSE COUNCIL].

81. *Id.* at 4.

this policy through federal interagency and federal–state cooperation and private stakeholder engagement.⁸² The Final Recommendations also called for the United States to adopt certain key decision-making principles, the first of which was the Precautionary Approach contained within Principle 15 of the United Nations (UN) Rio Declaration on Environment and Development.⁸³ Principle 15 requires all states to widely apply the Precautionary Approach to protect the environment “according to their capabilities.”⁸⁴ The Precautionary Approach states that “[w]here there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”⁸⁵

There is an abundance of evidence to confirm that it has been the common practice of prior presidential administrations to use “precautionary approach” language in publicly reviewable federal documentation. However, in reality, the U.S. Government (USG) and other treaty party signatories to such international agreements implement and enforce the legal obligations those agreements impose pursuant to the stronger *European precautionary principle*, which “entails a radical change in outlook,” a bias against the use of technology, and a reversal of the burden of proof.⁸⁶ The European precautionary principle, “in its ‘strongest’ version,” “is triggered once ‘there is at least *prima facie* scientific evidence of a hazard,’” and “challenges Enlightenment era regulatory science protocols, and the rationalist approach to risk regulation in the face of scientific uncertainty.”⁸⁷ It also “creates an administrative presumption of risk” based on the presence of a hazard “which favors *ex ante* regulation and tends to reverse the administrative and adjudicatory burden of proof (production and persuasion) from government . . . to industry.”⁸⁸

82. *Id.* at 15.

83. See U.N. Conference on Environment and Development, *Rio Declaration on Environment and Development*, U.N. Doc. A/CONF.151/26 (Vol. I), annex I (Aug. 12, 1992).

84. *Id.*

85. *Id.*; see also WHITE HOUSE COUNCIL, *supra* note 80, at 16.

86. Lawrence A. Kogan, *What Goes Around Comes Around: How UNCLOS Ratification Will Herald Europe’s Precautionary Principle as U.S. Law*, 7 SANTA CLARA J. INT’L L. 23, 26–27 (2009), <https://digitalcommons.law.scu.edu/scujil/vol7/iss1/2/> [<https://perma.cc/K4KA-QL5Q>].

87. Lucas Bergkamp & Lawrence Kogan, *Trade, the Precautionary Principle and Post-Modern Regulatory Process: Regulatory Convergence in the Transatlantic Trade and Investment Partnership*, EUR. J. RISK REG. 499–500 (2013).

88. *Id.*

In other words, rather than the government having to show an industry's activities or technologies pose a potential harm to the environment or human health, an industry must now show that its activities or technologies pose no such potential harm, which is equivalent to the imposition of a zero-risk-threshold.⁸⁹

American and European academicians have concluded that the European precautionary principle offers a starkly different regulatory approach which calls for regulators to employ an *ex ante* (before-the-fact, in anticipation of possible harm) environmental hazard assessment framework focused on preventing unforeseeable environmental harm, rather than an *ex-post* (after-the-fact) empirical environmental risk assessment framework focused on preventing foreseeable environmental harm. This distinction is rooted in fundamental underlying constitutional differences between the United States and the European Union. "These constitutional differences, in turn, reflect different notions concerning the rights of individuals versus those of society, of the role of government in balancing between those rights, and of the relative functions served by the different institutions of government."⁹⁰ In other words, the European precautionary principle dispenses with any consideration of the United States Constitution, the Bill of Rights, and the basic liberties identified in the Declaration of Independence, which recognize the inherent primacy of natural individual rights to "life, liberty and the pursuit of happiness" over collective societal rights.⁹¹

Indeed, more radical environmentalist academics have embraced the European precautionary principle precisely because, under its influence, "the advocate of an activity has the burden of proving the safety of the activity."⁹² They also have emphasized that the importance of the debate surrounding the precautionary principle concerns its involvement in the "fundamental dimensions of human life, such as the right to health and a clean environment and the aspiration for better standards of living."⁹³

89. *See id.*

90. Lawrence A. Kogan, Monograph, *Exporting Precaution: How Europe's Risk-Free Regulatory Agenda Threatens American Free Enterprise*, WASH. LEGAL FOUND. 1, 97 (2005).

91. *See id.*

92. Marco Martuzzi & Joel Tickner, *The Precautionary Principle: Protecting Public Health, the Environment and the Future of Our Children*, WORLD HEALTH ORG. EUROPE 1, 78 (2004).

93. *Id.* at 8.

The Final Recommendations of the former Obama administration Ocean Policy Task Force endeavored to explain the Task Force's response to public comments accusing it of incorporating Europe's 'strong' precautionary principle rather than the 'weak' precautionary approach of Rio Declaration Principle 15.⁹⁴ Despite the Task Force's response that "the United States has long taken the position that precaution is a tool or approach rather than a 'principle,'" there is much to doubt about the Ocean Policy Task Force's sincerity regarding its use of "precautionary approach" terminology.⁹⁵ In fact, there is abundant evidence to the contrary, demonstrating the Obama administration's actual implementation and enforcement of more stringent European precautionary principle legal standards within U.S. policy and regulations. A prime example of this is the Obama administration's deep seabed mining policy and regulations adopted following the environmental "crisis" the Deepwater Horizon incident had triggered.⁹⁶

The second principle the Final Recommendations called upon the USG to adopt as a "national priority objective" was Ecosystem-Based Management (EBM), which employs European precautionary principle-based science protocols to account for "the interdependence of the land, air, water, ice, and the interconnectedness between human populations and these environments."⁹⁷ EBM emphasizes four common principles which can be achieved only "through a precautionary approach which errs on the side of conservation in the event of uncertainty, and shifts the burden of proof for showing that ocean use would impose no major unacceptable impacts from regulators to the economic actor or business."⁹⁸

94. See WHITE HOUSE COUNCIL, *supra* note 80, at C-IV.

95. *Id.* at app. C § II, C-III to C-IV.

96. See Lawrence A. Kogan, *Revised U.S. Deep Seabed Mining Policy Reflects UNCLOS and Other International Environmental Law Obligations*, 6893 LEXISNEXIS® EMERGING ISSUES 1, 13–16 (2013), <http://nebula.wsimg.com/f97bfb87d31d68c9fba55f48d125fd8a?AccessKeyId=39A2DC689E4CA87C906D&disposition=0&alloworigin=1> [<https://perma.cc/96S7-88W5>] (discussing the legal distinction between a precautionary approach contained in Rio Declaration Principle 15 and what the European Union refers to as the precautionary principle, and how the deep sea mining policy adopted in 2013 actually incorporated the precautionary principle, despite use of precautionary approach terminology).

97. WHITE HOUSE COUNCIL, *supra* note 80, at 16.

98. Lawrence A. Kogan, *'Ecosystem-Based Management': A Stealth Vehicle to Inject Euro-Style Precaution into U.S. Regulation 1* (Wash. Legal Found. Vol. 24, Legal Backgrounder No. 23, 2009).

The former Obama administration Ocean Policy Task Force Final Recommendations contained a third principle which called upon the USG to adopt “comprehensive, integrated, ecosystem-based coastal and marine spatial planning and management” (CMSP) as a “national priority objective.”⁹⁹ Under the recommended unified framework, “the United States will be subdivided into nine regional planning areas,” including the Great Lakes.¹⁰⁰ “Each region will have a corresponding regional planning body consisting of Federal, State, and tribal representatives to develop regional goals, objectives, and ultimately regional CMS plans.”¹⁰¹ To implement effective CMSP and ensure watershed conservation, the Final Recommendations emphasized the need to “build knowledge of . . . Great Lakes ecosystems and processes” and to “[i]ncrease[] understanding of watershed processes and the linkages with our coasts . . . to adequately manage human uses, human impacts.”¹⁰² “Europeans have prominently relied upon EBM when pursuing ‘marine spatial planning,’ which is an integrated, forward-looking approach to protecting the marine environment.”¹⁰³

According to the Final Recommendations, closely tied to CMSP and watershed protection is the need to reduce nonpoint source pollution, such as runoff, arising from “poor land management practices,” including agricultural, commercial, and industrial land uses that can be transported hundreds of miles from inland to coastal waters.¹⁰⁴ While the geographic scope of U.S. CMSP areas would generally not include upland areas, they could if a regional planning body (e.g., the Great Lakes Regional Planning Body) decides to include them. The Final Recommendations suggest using “existing . . . Federal programs including . . . the Clean Water Act” as part of land-based watershed planning efforts.¹⁰⁵

99. WHITE HOUSE COUNCIL, *supra* note 80, at 6.

100. *See id.* at 6, 8.

101. *Id.*

102. *Id.* at 33.

103. Kogan, ‘Ecosystem-Based Management’, *supra* note 98, at 1.

104. WHITE HOUSE COUNCIL, *supra* note 80, at 38.

105. *Id.* at 50; *see also* OFFICE OF THE PRESS SEC’Y, *supra* note 78, at 1–2 (calling for a new Ocean Policy Task Force to develop a comprehensive ecosystem-based framework for the long term conservation and use of our ocean coasts and Great Lakes resources, and a recommended framework for effective coastal and marine spatial planning).

D. National Ocean Council Implementation Plan

During April 2013, the former Obama administration's National Ocean Council, which had evolved from the Ocean Policy Task Force, released its Implementation Plan setting forth "on-the-ground" actions that would translate policy into achievements.¹⁰⁶ It also released an accompanying Appendix setting forth target dates for undertaking those actions in fulfillment of the goals the Final Recommendations had identified.¹⁰⁷ The Implementation Plan emphasized the need for Federal agencies to publicly identify and communicate "the economic value of ecosystem services, such as healthy and productive wetlands that support spawning, breeding, and feeding of commercially and recreationally important fish species."¹⁰⁸ "Agencies will coordinate to protect, restore, and enhance wetlands. . . . Through National Ocean Policy actions, *thousands of acres of wetlands* and priority habitat will be protected, restored, or enhanced."¹⁰⁹

For example, by 2013, the National Ocean Council was to have documented the status and trends of coastal wetlands using recent data from 2004 to 2009, with participation from the National Oceanic and Atmospheric Administration (NOAA) and the Department of Interior's U.S. Fish and Wildlife Service (USFWS).¹¹⁰ Furthermore, by 2013, the National Ocean Council was to have developed a pilot assessment selection strategy and identified coastal watersheds for pilot assessments using updated wetland inventories and geospatial data. USEPA, NOAA, USFWS, and the U.S. Army Corps of Engineers (USACE) all were listed as participating agencies.¹¹¹ Moreover, by 2014, "100,000 acres of wetlands, wetland-associated uplands, and high-priority coastal, upland, urban, and island habitat" were to be protected, restored, or enhanced.¹¹² And by 2015, the National Ocean Council was to have identified actions Federal agencies could take, in coordination with state, tribal, regional, and local agencies, to improve the management of coastal wetlands and

106. NAT'L OCEAN COUNCIL, NATIONAL OCEAN POLICY IMPLEMENTATION PLAN 1, 3, 20 (April 2013) [hereinafter NOC].

107. See generally NAT'L OCEAN COUNCIL, NATIONAL OCEAN POLICY IMPLEMENTATION PLAN APPENDIX (2013) [hereinafter NOC APP.].

108. See NOC, *supra* note 106, at 7.

109. *Id.* at 7, 8, 14–15 (emphasis added).

110. See NOC APP., *supra* note 107, at 12.

111. See *id.* at 14.

112. *Id.* at 12.

reduce losses nationwide.¹¹³ The same participating agencies were to be involved—USEPA, NOAA, USFWS, and USACE.¹¹⁴

By 2014, the National Ocean Council was to have completed its analyses for each coast watershed selected for a pilot assessment, using data and information *inter alia* from the 2011 USFWS study entitled “Status and Trends of Wetlands in the Conterminous United States.”¹¹⁵ Tellingly, the USFWS 2011 study identified freshwater wetland systems, including emergent marshes contiguous with and directly connected to the Great Lakes.¹¹⁶

E. 2016 National Ocean Policy Annual Work Plan

The 2016 National Ocean Policy Annual Work Plan, which brought the Implementation Plan’s target dates forward, identified four priority areas of pressing need for short-term advancement.¹¹⁷ One such priority area was the development of Regional Marine Plans to “help inform Federal activities.”¹¹⁸ The plans would be developed by the nine Regional Planning Bodies serving the nine marine regions the prior National Ocean Policy had established.¹¹⁹ And the scope of the marine plans would be defined by the regions themselves.¹²⁰

Congressional hearings convened on May 17, 2016, and questioned the impact of certain former Obama administration National Ocean Policy goals deemed anathema to the nation’s agricultural communities.¹²¹ These goals included (1) “[r]estoring

113. *See id.* at 5.

114. *See id.*

115. *Id.* at 14 (describing the data to be used also was to have come from NOAA’s Coastal Change Analysis Program, from the *Clean Water Act Section 404 program*, from State regulatory programs, from USACE Civil Works programs, and from geospatial sources).

116. *See* U.S. FISH AND WILDLIFE SERV., STATUS AND TRENDS OF WETLANDS IN THE CONTERMINOUS UNITED STATES, 2004 TO 2009 1, 87 (2011); *cf.* *Where Are Great Lakes Coastal Wetlands?*, U.S. ENVTL. PROT. AGENCY, <https://www.epa.gov/great-lakes-monitoring/where-are-great-lakes-coastal-wetlands> [<https://perma.cc/78PE-CN2J>] (last visited Oct. 15, 2019) (defining “Great Lakes coastal wetlands” as “an area of wetland directly influenced by the waters of one of the Great Lakes or its connecting channels”) (citation omitted). Great Lakes coastal wetlands are found throughout the basin, along shorelines, in the mouths of tributaries, and along connecting channels. *See id.*

117. *See* NAT’L OCEAN COUNCIL, NATIONAL OCEAN POLICY 2016 ANNUAL WORK PLAN 1 (2016).

118. *Id.* at 4.

119. *See id.*

120. *See id.*

121. *See id.*

wetlands and upland areas”; (2) addressing “land-based sources of pollution”; (3) using Regional Planning Bodies which could “dramatically increase the role of Federal agencies on inland rivers and adjacent land uses . . . at a time when other *hydropower dams are under ongoing litigation by certain environmental groups*”; and (4) using ecosystem-based management, which “involves vague and undefined policies that we know from experience can be used by critics of irrigated agriculture as the basis for lawsuits to stop or delay federally permitted activities.”¹²²

Among the witnesses that provided testimony at the hearings, the Family Farm Alliance’s prepared statement emphasized how the use of ecosystem-based management (1) “would allow federally dominated Regional Planning Bodies to reach as far inland as deemed necessary to protect ocean ecosystem health[, which] could potentially impact all activities that occur on lands adjacent to rivers, tributaries or watersheds that drain into the ocean” and (2) “create[] . . . unforeseen impacts to inland sectors, like agriculture,” which is connected via the “ecosystem-based management” approach to the ocean.¹²³ “[A]lthough the policy [was] portrayed by the [Obama] Administration as primarily targeting ocean-related activities, the draft implementation plan specifically state[d] that the policy plans to address ‘the major impacts of urban and suburban development and agriculture—including forestry and animal feedlots.’”¹²⁴

II. SUSTAINABLE DEVELOPMENT AND ENVIRONMENTAL SUSTAINABILITY—WHAT IS IT REALLY?

The concept of sustainability or sustainable development (SD) is an overly dramatic concept originally articulated in the Report of the World Commission on Environment and Development entitled “Our Common Future.”¹²⁵ That report was transmitted to the United Nations General Assembly on August 4, 1987.¹²⁶ On a macro global level, it

122. *The Implications of President Obama’s National Ocean Policy: Hearing Before the Subcomm. on Water, Power and Oceans of the H. Comm. on Nat. Res.*, 114th Cong. 6–7 (2016) (Statement of the Hon. Paul A. Gosar, Rep., R-AZ) (emphasis added); *see also id.* at 43 (Statement of Dan Keppen, Executive Director, Family Farm Alliance) (emphasis added).

123. *Id.* at 21–22, 24.

124. *Id.*

125. World Comm’n on Env’t & Dev., *Our Common Future* (Mar. 20, 1987) [hereinafter World Comm’n on Env’t & Dev. Mar. Report].

126. *See* U.N. Sec’y-Gen., *Development and International Co-operation: Environment, Report of the World Commission on Environment and Development*, ¶

calls simultaneously for integrating environmental and development policies resulting in “changes in the domestic and international policies of every nation” capable of “meet[ing] the needs and aspirations of the present without compromising the ability to meet those of the future” and ensuring social and economic change in developing nations.¹²⁷ In effect, the concept of sustainability or SD formulates “[a] global agenda for *change*.”¹²⁸

According to the U.N. Report, sustainability or SD calls for each nation to adopt new environmental management practices that focus on anticipating and preventing environmental damage before it occurs, rather than on after-the-fact repair of environmental damage.¹²⁹ “*What is required is a new approach in which all nations aim at a type of development that integrates production with resource conservation and enhancement, and that links both to the provision for all of an adequate livelihood base and equitable access to resources.*”¹³⁰ Furthermore, sustainability or SD calls for environmental, social, and economic development in all countries “developed or developing, market-oriented or centrally planned.”¹³¹ This requires a “*progressive transformation of economy and society*” that provides basic minimal living standards and “promot[es] values that encourage consumption standards that are within the bounds of the ecological possible and to which all can reasonably aspire.”¹³² In sum, sustainability or SD “embodies an ostensibly universally applicable (and, until recently, legally unenforceable) set of twenty-seven intergenerational principles integrating environmental, economic, and social concerns,”¹³³ subsequently enumerated in the 1992 U.N. Rio

3 U.N. Doc. A/42/427 (Aug. 4, 1987), <http://www.un-documents.net/a42-427.htm> [<https://perma.cc/7T33-EYZ9>].

127. World Comm’n on Env’t & Dev., *Our Common Future: Report of the World Commission on Environment and Development*, ¶¶ 48–49, U.N. Doc. A/42/427 (Aug. 4, 1987) [hereinafter World Comm’n on Env’t & Dev. Aug. Report], <http://www.un-documents.net/ocf-01.htm#II> [<https://perma.cc/2NJU-GZ8U>].

128. World Comm’n on Env’t & Dev. Mar. Rep., *supra* note 125, at Chairman’s Foreword (emphasis added).

129. *See id.* at ch. 6.

130. World Comm’n on Env’t & Dev. Aug. Rep., *supra* note 127, at ¶ 47 (emphasis added).

131. *Id.* at ch. 2, ¶ 2.

132. *Id.* at ¶¶ 3, 5 (emphasis added).

133. Lawrence A. Kogan, *Local Sustainability Movement Rides Wave of Evolving Federalism to ‘Axe’ Private Property Rights*, 7 KY. J. OF EQUINE, AGRIC. & NAT. RESOURCES L. 469, 469 (2014–2015).

Declaration on Environment and Development.¹³⁴ These principles include the post-modern scientifically progressive yet economically harmful European precautionary principle,¹³⁵ which masquerades as the more balanced Precautionary Approach contained in Principle 15 of the U.N. Rio Declaration.¹³⁶

On a micro-level, the concept of sustainability or SD incorporates a comprehensive roadmap for national and subnational governmental implementation of those principles, known as “Agenda 21.”¹³⁷ “Chapter 28 of Agenda 21 (‘local Agenda 21’ or ‘LA21’) specifically encourages the establishment of mechanisms to promote cooperation and coordination between local authorities internationally.”¹³⁸ “It has effectively provided state and local authorities with an environmental advocacy platform at the international level”¹³⁹ and aggressively promoted sustainability curricula at U.S. universities.¹⁴⁰ Since the conclusion of the 2002 U.N. Johannesburg World Summit on Sustainable Development and the 2007 signing of the European Union Lisbon Treaty, the SD concept has been reformulated as a legally operable and enforceable norm that obliges national and regional governments “to promote long-term economic prosperity and social justice within the limits of ecological sustainability.”¹⁴¹

Those unfamiliar with sustainability or SD may not realize that it is rooted in an uneasy late twentieth century political and philosophical compromise between Marxism and capitalism.¹⁴² While

134. See U.N. Conference on Sustainable Development, *Report of the United Nations Conference on Environment and Development*, U.N. Doc.A/CONF.151/26 (Vol. I), annex I, 3 (Aug. 12, 1992).

135. See *supra* Section I.C.

136. See U.N. Conference on Sustainable Development, *supra* note 134, at 3.

137. U.N. Conference on Env’t & Dev., *Agenda 21* (June 3–14, 1992).

138. Kogan, *Local Sustainability Movement*, *supra* note 133, at 470 (citing Leslie Hom, *The Making of Local Agenda 21: An Interview with Jeb Brugmann*, 7 LOCAL ENV’T 3, 251–52 (2002)).

139. *Id.*

140. See RACHELLE PETERSON & PETER W. WOOD, NAT’L ASS’N OF SCHOLARS, *SUSTAINABILITY: HIGHER EDUC.’S NEW FUNDAMENTALISM* (Mar. 2015).

141. See Kogan, *Local Sustainability Movement*, *supra* note 133, at 470.

142. See Joan Veon, *Transcript of Radio Program Interview With Jeb Brugman From RIO+5* (1997), <http://www.ninehundred.net/~jveon/ICELL.html> and <http://www.ninehundred.net/~jveon/2JBWCTN.html> (“JB: . . . There is the socialist doctrine of development and the capitalist doctrine of development and we spent all our resources battling between these two doctrines. We had the Cold War, we had real wars. I mean, hundreds of billions of dollars. And, it wasn’t until the Cold War came to an end, 1987 the World Commission on Environment Development put forward a

some commentators have argued that capitalism is fundamentally incompatible with sustainable development,¹⁴³ others have spiritedly debated and referred to sustainability or SD as the “Third Way.”¹⁴⁴ The center-left in the United States during the Clinton administration and the Labourites in the U.K. during the Blair administration developed the Third Way as a movement to respond to new challenges.¹⁴⁵ “It is, effectively, an update of the 1930s New Deal and the ‘social market economy’ of the European continental welfare state.”¹⁴⁶ The concept

third doctrine called sustainable development which is about balancing between social equity, the long time socialist concern, economic vitality, the capitalist concern and then this new concern that neither paid any attention to which is environmental sustainability.”).

143. See George Lioukakis, *Material, Social and Theoretical Aspects of Sustainable Development*, WORLD ECON. ASS'N 7, 10 (Sept. 24–Oct. 21, 2012) (“Marx’s fruitful insight led him to depict the relation between nature and society as a metabolic relation increasingly disrupted by the development of capitalism, both in agriculture and industry . . . This insight has served as the basis for a considerable recent literature concerning this growing metabolic rift and its implications for a sustainable and ecologically compatible development. . . . As argued throughout this paper, however, due to the essential features of capitalism, it is impossible to have reforms of capitalism adequate to the task of creating conditions of social and ecological sustainability, not to speak of a truly sustainable human development.”).

144. Kogan, *Local Sustainability Movement*, *supra* note 133, at 470 n.9; see also Anne Bartlett, *Greening London: Sustainability, Politics and the Third Way*, in 4 HUMAN SETTLEMENT DEV., ENCYCLOPEDIA OF LIFE SUPPORT SYS. 379, 382 (Saskia Sassen ed. 2009) (“[F]or many of the . . . architects of the Third Way, sustainability . . . demands a more flexible and in some respects syncretic approach, often bringing together apparently incongruous themes or groups all in the name of political compromise. Sustainability . . . requires an accommodation between the traditionally opposed factions of capitalism and environmentalism in an attempt to achieve a modus vivendi in which all sets of actors can pursue their agendas. It requires a ‘meeting of minds’—a reinvigoration of the sustainability agenda—in which business, environmental requisites and consumer demand can be harnessed in a mutually beneficial relationship.”). Compare Anthony Giddens, *THE THIRD WAY: THE RENEWAL OF SOCIAL DEMOCRACY* (1998), with *The Third Way Revealed*, ECONOMIST (Sept. 17, 1998), <http://www.economist.com/node/165553> [<https://perma.cc/ST7Q-V8JP>] (critiquing Anthony Giddens’ book).

145. See Kogan, *Local Sustainability Movement*, *supra* note 133, at 471 n.10; see also James Sloam, *Blair, the Third Way and European Social Democracy: A New Political Consensus?*, in “BRITAIN AFTER BLAIR” CONFERENCE (2007) (“Labour’s Third Way has provided a coherent political philosophy that has been enacted in government. Its central aims of have been to promote the primacy of the economy, and to concentrate spending priorities on social investment within the context of an active welfare state.”).

146. Kogan, *Local Sustainability Movement*, *supra* note 133, at 471 n.11, n.12, n.13; see also Margaret Weir, *The Collapse of Bill Clinton’s Third Way*, NEW LABOUR (2000) (“This transformative strategy had three components: 1.) To counter distrust of the federal government, policy would work through market mechanisms or

of sustainability or SD also is “‘closely related to ‘new Keynesian’ economics’ which views ‘market failures’ ‘as arising from the existence of externalities, the “public good” nature of some goods and monopoly.’”¹⁴⁷

Since the 2008 global financial crisis, sustainability or SD has been referred to as the “Green Economy” by the United Nations Environment Program (UNEP).¹⁴⁸ For example, the objective of the UNEP-led “Green Economy Initiative” is “to provide the analysis and policy support for investing in green sectors and in greening environmental unfriendly sectors.”¹⁴⁹ However, if one delves deeper

the states and it would ‘reinvent’ government; 2.) To counter racially charged ‘wedge’ issues, such as crime and welfare, policy would set clear expectations for individual responsibility and impose sanctions on bad behavior. It would, however, provide resources to assist people if they lived up to their part of this bargain. The President encapsulated this bargain in the aphorism, ‘If you work, you shouldn’t be poor.’ 3.) To counter arguments that social spending was too expensive, policy would highlight the long-term benefits of ‘investing’ in people so that they could be productive workers and citizens. This approach to policy can be distinguished from two Democratic alternatives. It most visibly departed from ‘old Democratic’ policy orientations in its forthright embrace of responsibility and expectations for individual behavior as conditions for beneficiaries. But it also envisioned a different relationship between government and the market than traditional New Deal policies.”); Christian Joerges & Florian Rödl, ‘*Social Market Economy’ as Europe’s Social Model?* (Eur. U. Inst. Working Paper No. 2004/8, 2004) (emphasis added) (describing how the term “‘social market economy’ . . . was invented by the German Professor of economics, Alfred Muller-Armack in 1946[] [*i*]n an article [*in which*] he presented the ‘social market economy’ as a third way between ‘laissez-faire liberalism’ and ‘planned economy’ with the inherent threat of socialization”); Jochen Clasen & Daniel Clegg, *Does the Third Way Work? The Left and Labour Market Policy Reform in Britain, France, and Germany, in WELFARE STATE CHANGE: TOWARDS A THIRD WAY?* 89, 89 (Oxford Univ. Press 2005), <http://www.oxfordscholarship.com/view/10.1093/0199266727.001.0001/acprof-9780199266722-chapter-5> [<https://perma.cc/E7TX-E7B8>] (“The Third Way referred originally to the self-conscious ‘rebranding’ of the centre-left, as advocated by Tony Blair and some of his close advisers in Britain. However, in more scholarly debates about welfare states and their reform, the term is also increasingly employed as shorthand for the policy mix perceived to be best suited to reconciling economic performance and social justice in a transformed international economy.”) (citations omitted). See generally Jurgen Jeske, *The ‘Third Way’ Between State Intervention and the Free Market*, *TAIPEI TIMES* 9 (Mar. 3, 2015), <http://www.taipetimes.com/News/editorials/archives/2015/03/03/2003612636> [<https://perma.cc/BL5M-CQ4D>].

147. Kogan, *Local Sustainability Movement*, *supra* note 133, at 471 n.14.

148. *UNEP-Led Green Economy Initiative*, U.N. SYS. CHIEF EXEC. BD. FOR COORDINATION (Feb. 23, 2017), <https://www.unsystem.org/content/unep-led-green-economy-initiative> [<https://perma.cc/NUN6-M6EZ>].

149. *Id.*

into the concept of a Green Economy, which involves a number of U.N. agencies, including UNEP, engaged in various international and domestic law, policy, and financial activities,¹⁵⁰ one realizes that it engenders an anti-capitalist economic model requiring much more government involvement, intrusion, and control over citizens' private affairs and economic lives than most Americans are willing to concede.¹⁵¹

150. See *What We Do*, U.N. ENV'T PROGRAMME, <https://www.unenvironment.org/explore-topics/green-economy/what-we-do> [https://perma.cc/CBA2-ASC4] (last visited Oct. 30, 2019).

151. See *About Green Economy*, U.N. ENV'T PROGRAMME, <https://www.unenvironment.org/explore-topics/green-economy/about-green-economy> [https://perma.cc/AJF7-T974] (last visited Sept. 27, 2019); see also JOEL KOVEL, *THE ENEMY OF NATURE: THE END OF CAPITALISM OR THE END OF THE WORLD?* 122, 243 (Zed Books ed., 2d ed. 2007) ("It is widely recognized, for example, that habits of consumption in the industrial societies will have to be drastically altered if a sustainable world is to be achieved. This means, however, that the very pattern of human needs will have to be changed, which means in turn that the basic way we inhabit nature will have to be changed. We know that capital forcibly indoctrinates people to resist these changes; but it is a poor and superficial analysis that would stop here and say nothing further about how this works and how it came about. Capital's efficient causation of the ecological crisis establishes it as the enemy of nature. But the roots of the enmity still await exploration. . . . We call ecosocialism that society in which production is carried out by freely associated labor and with consciously ecocentric means and ends. When such production takes hold across the society as a whole, we are able to call it a *mode* of production; thus ecosocialism will be a society whose mode of production is ecocentric. This does not mean that no other forms of production coexist. Indeed, certain markets, and therefore commodities, are bound to continue within ecosocialist society for the foreseeable future. However, the coordinated agencies of society—state, civil society, culture, religion, etc.—are centered about ecocentric production; and this centering also hems in markets and keeps them functioning according to ecocentric ethics rather than profiteering. Use-value and quality are valorized over exchange-value and quantity, and the economy is now embedded within society rather than, as under capitalism, standing over society."); David Schweickart, *Is Sustainable Capitalism Possible?*, 2 *PROCEDIA SOC. & BEHAV. SCI.* 6739, 6739 (2010), <https://reader.elsevier.com/reader/sd/pii/S1877042810011547?token=> [https://perma.cc/BU5E-XXMR] (evaluating the contrasting perspectives of Kovel's *THE ENEMY OF NATURE* that "'grow or die' is an imperative of capitalism that renders sustainable capitalism impossible with the claim implicit in [Hawken's and Lovins'] *Natural Capitalism*: *Creating the Next Industrial Revolution*] that either capitalism is compatible with a steady-state, non-growing economy or an economy [that] can grow indefinitely without consuming more energy and natural resources than it can sustainably reproduce," and concluding that "Kovel overstates his case but is closer to the truth than are advocates of 'natural capitalism'"); John Ikerd, *Is Sustainable Capitalism Possible* (July 5, 2016) (unpublished paper) (filed on author's faculty page on University of the Missouri College of Arts and Science website), <http://web.missouri.edu/~ikerdj/papers/Korea%20-%20Sustainable%20Capitalism>

It is difficult not to recognize the Green Economy as a reframing of the Third Way.¹⁵² In fact, several European academics have referred to the Green Economy as providing the means to use an “ecological crisis . . . for solving other problems contemporary capitalism is facing, such as the economic crisis and the crisis of legitimacy.”¹⁵³ This sounds quite similar to former White House Chief of Staff Rahm Emanuel’s memorable statement to a journalist soon after the November 2008 election of Barack Obama: “You never want a serious crisis to go to waste.”¹⁵⁴ Emanuel also had previously served as a trusted adviser to former president Bill Clinton.¹⁵⁵

[<https://perma.cc/WAH6-ZXYU>] (“In summary, capitalism gains its advantage over other economic systems by focusing on short-run, individual self-interests, and thus, not sacrificing current productivity for the benefit of future generations. Capitalism’s productivity advantage is linked directly to its lack of sustainability. Therefore, it quite simply is not sustainable. This is not a personal opinion, but instead a logical consequence of the most fundamental laws of science. Sustainability ultimately will require a societal commitment to rely on renewable solar energy, not just to meet the needs of the current generation, but also to ensure adequate energy resources for future generations to offset entropy. Thus, sustainability will require a new and different economic paradigm.”); Molly Scott Cato, *Why Capitalism Can’t Be Sustainable*, GREENECONOMIST.ORG, <http://www.greeneconomist.org/page.php?pageid=capitalism> [<https://perma.cc/HMW5-4VJS>] (last visited Sept. 27, 2019) (“[T]here is an unspoken (and largely untested) assumption that there need be no fundamental contradiction between sustainable development and capitalism. That assumption stands in stark contrast to the prevailing view of many radical academics and non-governmental organizations (NGOs) that there are profound (and possibly unmanageable) contradictions which demand a completely different world order.”).

152. See, e.g., Kogan, *Local Sustainability Movement*, *supra* note 133, at 470 (describing sustainable development as a “political and philosophical compromise between Marxism and capitalism”).

153. Anneleen Kenis & Matthias Lievens, *Greening the Economy or Economizing the Green Project? When Environmental Concerns Are Turned into a Means to Save the Market*, 48 REV. RADICAL POL. ECON. 217, 231 (2016); see also *Why Does Green Economy Matter?*, U.N. ENV’T PROGRAMME, <https://www.unenvironment.org/explore-topics/green-economy/why-does-green-economy-matter> [<https://perma.cc/K4L2-ZKEV>] (last visited Sept. 27, 2019) (“An inclusive green economy is one that improves human well-being and builds social equity while reducing environmental risks and scarcities. An inclusive green economy is an alternative to today’s dominant economic model, which exacerbates inequalities, encourages waste, triggers resource scarcities, and generates widespread threats to the environment and human health.”).

154. Jack Rosenthal, *A Terrible Thing to Waste*, N.Y. TIMES (July 31, 2009), <https://www.nytimes.com/2009/08/02/magazine/02FOB-onlanguage-t.html> [<https://perma.cc/N7EM-RLLY>].

155. See Michael Ray, *Rahm Emanuel: American Politician*, ENCYCLOPAEDIA BRITANNICA, <https://www.britannica.com/biography/Rahm-Emanuel> [<https://perma.cc/52T9-7V37>] (last visited Sept. 26, 2019).

Indeed, the U.S. federal government and an increasing number of “blue” state and local governments have embraced sustainability or SD over the past two decades.¹⁵⁶ The Obama administration surfed this trend to two electoral victories by deftly targeting the welfare state-minded who favored “the social safety net and an activist government” which would “guarantee every citizen enough to eat and a place to sleep.”¹⁵⁷ In fact, the 2017 report of former President Obama’s Advisory Council on Faith-based and Neighborhood Partnerships called for the former president to lead the implementation of the U.N. sustainable development goals in America.¹⁵⁸

Some European academic proponents of sustainability or SD have warned, however, that the Green Economy has given life to a more progressive movement that seeks “climate justice” or “environmental justice.”¹⁵⁹ This movement

advocates a process of *profound social change beyond capitalism*, supported by broad alliances of forces, including workers, peasants, women, indigenous peoples and their myriad organizations, trade unions and political forces[, and] . . . centrally aims at a socially just transition to a sustainable future, based on principles of decommodification, deprivatization, social equality, communing, and radical democracy.¹⁶⁰

The shape and tenor of this latter movement would appear to encapsulate the retreaded “Green New Deal” initiative previously

156. See Kogan, *Local Sustainability Movement*, *supra* note 133, at 473–78, 486–89.

157. Michelle Diggles, *The New Electorate and the Future of the Democratic Party*, THIRD WAY 18 (Sept. 19, 2013).

158. See PRESIDENT’S ADVISORY COUNCIL ON FAITH-BASED & NEIGHBORHOOD PARTNERSHIPS, STRENGTHENING EFFORTS TO INCREASE OPPORTUNITY AND END POVERTY: RECOMMENDATIONS OF THE PRESIDENT’S ADVISORY COUNCIL FOR FAITH-BASED AND NEIGHBORHOOD PARTNERSHIPS TO ADDRESS POVERTY AND INEQUALITY 26–27 (2017) (“The world as a whole is making dramatic progress against hunger, poverty, and disease. The nations of the world recently committed themselves to the Sustainable Development Goals (SDGs), which begin with commitments to end poverty and hunger by 2030. The global goals also address the issues of inequality and environmental sustainability. We commend the President for affirming that the new global goals apply to all countries, including the United States. . . . In the history of the United States and other countries, we have repeatedly seen that a clear statement of goals can have wide influence and drive change. That is why we encourage the White House to continue to promote U.S. awareness of the global goals and to highlight the relevance of the goals in our own country. We recommend that the President lead the implementation of the Sustainable Development Goals in America in a way that reflects the new global goals but is also rooted in our nation’s own realities and aspirations.”).

159. Kenis & Lievens, *supra* note 153, at 231 (emphasis added).

160. *Id.*

proposed in 2008 by Achim Steiner, former Executive Secretary of the UNEP, in response to the financial crisis.¹⁶¹

The Green New Deal was recently disingenuously reintroduced as a “new” idea both in the form of an outline and a proposed congressional resolution by an opportunistic new congresswoman from the Bronx (N.Y.)¹⁶² who had been elected to office in 2018 as a

161. James Kanter, *The Green New Deal*, N.Y. TIMES (Oct. 22, 2008), <https://green.blogs.nytimes.com/2008/10/22/the-green-new-deal/?pagemode=print> [<https://perma.cc/36ZN-33GY>].

162. The author is a graduate of the Boston University (B.U.) College of Arts and Sciences, holds a Bachelor of Arts *cum laude* in Philosophy and Political Theory, and was inspired, in part, to pursue this course of study and the practice of law by its former President and Chancellor, John Silber. The author has intentionally chosen not to dignify junior congresswoman Alexandria Ocasio-Cortez by referring to her by name in the text of this Article. In full transparency, the author expresses disdain and embarrassment that she is a fellow graduate of B.U., especially considering her totalitarian mindset and failure to recognize the distinction between civilized liberal thought encouraging Socratic method (debate) and uncivilized illiberal thought silencing debate and democratic process. *See, e.g.*, Lisa W. Foderaro, *Alexandria Ocasio-Cortez Likens \$10,000 Debate Offer by Conservative Columnist to Catcalling*, N.Y. TIMES (Aug. 10, 2018), <https://www.nytimes.com/2018/08/10/nyregion/alexandria-ocasio-cortez-debate-catcalling-ben-shapiro.html> [<https://perma.cc/Y95U-CAML>]; Doug Most, *Alexandria Ocasio-Cortez (CAS'11) Talks Democratic Socialism with Stephen Colbert*, BOSTONIA (Jan. 22, 2019), <http://www.bu.edu/today/2019/democratic-socialism> [<https://perma.cc/4759-HR2Q>]; *Rousseau, Marx and Nietzsche: The Prophets of Illiberal Progress*, THE ECONOMIST (Sept. 6, 2018), <https://www.economist.com/schools-brief/2018/09/06/the-prophets-of-illiberal-progress> [<https://perma.cc/Y4XU-ZNEG>]. *See generally* COSTICA BRADATAN & SERGUEI OUSHAKINE, IN MARX'S SHADOW: KNOWLEDGE, POWER AND INTELLECTUALS IN EASTERN EUROPE AND RUSSIA (Costica Bradatan & Serguei Oushakine eds., 2010). It is the author's professional opinion that the junior congresswoman's actions-to-date demonstrate both intellectual dishonesty and a lack of intellectual rigor and intellectualism. *See, e.g.*, Svetlana Nikolic et al., *Intellectual Dishonesty in Science*, 52 ACTA MEDICA MEDIANAE 56, 57 https://www.researchgate.net/publication/271345431_INTELLECTUAL_DISHONESTY_IN_SCIENCE [<https://perma.cc/XM2R-HSX4>] (“This term usually means fabrication, falsification and plagiarism in proposing, performing or presenting research.”); *Intellectual Rigour Challenges All Students*, VICTORIA ST. GOV'T DEP'T OF EDUC. & TRAINING 1, <https://www.education.vic.gov.au/school/teachers/teachingresources/practice/improve/Pages/ppn7.aspx> [<https://perma.cc/ZG7K-3SSE>] (last updated May 31, 2019) (defining “intellectual rigour” as “clarity in thinking and an ability to think carefully and deeply when faced with new content or concepts[, which] . . . involves engaging constructively and methodically when exploring ideas, theories and philosophies [and] . . . relates to analyzing and constructing knowledge with depth, insight and intellectual maturity”). *See generally*, Judith Curry, *10 Signs of Intellectual Honesty*, CLIMATE ETC. (Apr. 20, 2013), <https://judithcurry.com/2013/04/20/10-signs-of-intellectual-honesty> [<https://perma.cc/U6GW-UK87>].

member of the Democratic Socialists of America Party in an upset victory over a Democratic Party “establishment incumbent.”¹⁶³ She was able to defeat the incumbent because she had dishonestly portrayed herself as an impoverished minority progressive (“democratic socialist”)¹⁶⁴ seeking environmental and economic justice for the peasant masses.¹⁶⁵

163. See Jennie Neufeld, *Alexandria Ocasio-Cortez is a Democratic Socialist of America Member. Here's What that Means*, VOX (June 27, 2018, 1:10 PM), <https://www.vox.com/policy-and-politics/2018/6/27/17509604/alexandria-ocasio-cortez-democratic-socialist-of-america> [https://perma.cc/CQV6-433E] (“Like most socialist organizations, DSA believes in the abolition of capitalism in favor of an economy run either by ‘the workers’ or the state—though the exact specifics of ‘abolishing capitalism’ are fiercely debated by socialists. . . . In practice, that means DSA [members advocate] ending private ownership of a wide range of industries whose products are viewed as ‘necessities,’ which they say should not be left to those seeking to turn a profit. . . . DSA also believes that the government should ‘democratize’ private businesses—i.e., force owners to give workers control of them—to the greatest extent possible. But DSA members also say that overthrowing capitalism must include the eradication of ‘hierarchical systems’ that lie beyond the market as well. As a result, DSA supports the missions of Black Lives Matter, gay and lesbian rights, and environmentalism as integral parts of this broader ‘anti-capitalist’ program. . . . ‘Socialism is the democratization of all areas of life, including but not limited to the economy.’”) (alteration in original) (emphasis added).

164. See Eric Levitz, *Is a Green New Deal Possible Without a Revolution?*, N.Y. INTELLIGENCER (Dec. 13, 2018), <http://nymag.com/intelligencer/2018/12/what-is-the-green-new-deal-explained-revolution.html> [https://perma.cc/638W-3Z2Z] (“Many contemporary leftists believe this history is worth repeating: Just as the fight against fascism facilitated a democratic transition from laissez-faire to Keynesian liberalism, so the fight for climate sustainability can shepard [sic] America out of neoliberalism, and into ecofriendly, intersectional, *democratic socialism*.”) (emphasis added); see also Jack Crowe, *AOC's Chief of Staff Admits the Green New Deal Is Not About Climate Change*, NAT'L REV. (July 12, 2019, 8:44 AM), <https://www.nationalreview.com/news/aocs-chief-of-staff-admits-the-green-new-deal-is-not-about-climate-change/> [https://perma.cc/QK8Q-ZQAM] (“Representative Alexandria Ocasio-Cortez’s chief of staff Saikat Chakrabarti admitted recently that the true motivation behind introducing the Green New Deal is to overhaul the ‘entire economy.’ . . . It would also, according to its proponents, advance ‘social, economic, racial, regional and gender-based justice and equality and cooperative and public ownership.’”).

165. See H.R.J. Res. 109, 116th Cong. (2019) (proposing that the federal government recognize a Green New Deal and outlining extensive economic needs, as opposed to solely environmental ones); see also Danielle Kurtzleben, *Rep. Alexandria Ocasio-Cortez Releases Green New Deal Outline*, NPR (Feb. 7, 2019, 4:30 PM), <https://www.npr.org/2019/02/07/691997301/rep-alexandria-ocasio-cortez-releases-green-new-deal-outline> [https://perma.cc/LD6U-YJNP] (describing how the Green New Deal framework “combines big climate-change-related ideas with a wish list of progressive economic proposals that, taken together, would touch nearly every American and overhaul the economy”).

In fact, other European academic commentators have hailed the concept of sustainability or SD as a “progressive alternative to neoliberalism in the twenty-first century.”¹⁶⁶ However, one cannot credibly claim that members of the U.S. Democratic Party who believe in “democratic socialism” or in the “Third Way” are adherents to neoliberalism as the progressive left has criticized them as being.¹⁶⁷ Much to the contrary, their concept of sustainability or SD “embodie[s] the post-modernist European movement’s key precepts that have evolved since WWII: a rejection of the Enlightenment-era science, economics, law, and political philosophies upon which America was founded.”¹⁶⁸ This question therefore arises: To what extent do these movements reject America’s founding principles? At its best (light green), sustainability or SD sets forth a formula for achieving market-based socialism, and at its worst (dark green outside with red inside),¹⁶⁹ sustainability or sustainable development leads to Marxism.

Members of the U.S. socialist movement, for example, are not impressed with the recycled Green New Deal and have warned that it

166. See Kogan, *Local Sustainability Movement*, *supra* note 133, at 472. See generally Victor Manuel Isidro Luna, *From Neoliberalism to Possible Alternatives*, 395 *ECONOMIA INFORMA* 35 (2015), <https://www.sciencedirect.com/science/article/pii/S0185084915000456> [<https://perma.cc/3J9W-JV5A>] (describing socialist policies as an alternative to neoliberalism).

167. See, e.g., Jonathan Chait, *How ‘Neoliberalism’ Became the Left’s Favorite Insult of Liberals*, *N.Y. INTELLIGENCER* (July 16, 2017), <http://nymag.com/intelligencer/2017/07/how-neoliberalism-became-the-lefts-favorite-insult.html> [<https://perma.cc/GD2Z-8HCN>] (describing how the term “neoliberalism” has more recently been used by the progressive left as a pejorative against centrist members of the U.S. Democratic Party). See generally Dani Rodrik, *The Fatal Flaw of Neoliberalism: It’s Bad Economics*, *THE GUARDIAN* (Nov. 14, 2017), <https://www.theguardian.com/news/2017/nov/14/the-fatal-flaw-of-neoliberalism-its-bad-economics> [<https://perma.cc/2BKZ-LSTS>].

168. Kogan, *Local Sustainability Movement*, *supra* note 133, at 472; see also Lawrence A. Kogan & Richard D. Otis, *Science for the Picking*, *CAN. FREE PRESS* (July 26, 2014), <https://canadafreepress.com/article/science-for-the-picking> [<https://perma.cc/9V46-LWPA>]. In a remarkable admission of the apparent post-modernist thinking among today’s Michigan Department of Environmental Quality (MDEQ) senior officials, Mr. Brian Rudolph, MDEQ Saginaw Bay District Office Supervisor, stated during his deposition that the terms “science” and “scientist” are now “colloquial terms.” See Transcript of Deposition of Brian Rudolph at 85:21–86:3, *Michigan Dep’t of Env’tl. Quality v. Boyce Hydro, LLC* (2018) (No. 16-8538-CE), <https://nebula.wsimg.com/158f66f0862a74368559d0313506c087?AccessKeyId=7F494AADE6AF42D36823&disposition=0&alloworigin=1>.

169. See Kogan, *Discerning the Forest from the Trees*, *supra* note 42, at 321 (discussing sustainable development and its ties to political ideology).

must be ensured that it “doesn’t become green capitalism.”¹⁷⁰ Their Marxist cousins have called out the new New York congresswoman’s Green New Deal as a “massive political fraud . . . entirely directed to and dependent upon the Democratic Party.”¹⁷¹ They have endeavored to set the historical record straight by emphasizing how “[t]he Green New Deal was formulated by the Green New Deal Group of global Greens in 2007” and subsequently “modified by the Green Party United States.”¹⁷² It is this radical subculture that clearly embraces the thesis of at least one European academic commentator who believes that communism is ultimately required to truly achieve social and ecological sustainability.¹⁷³ Arguably, this is what former Vice

170. *We Have to Make Sure the “Green New Deal” Doesn’t Become Green Capitalism: A Conversation With Kali Akuno of Cooperation Jackson*, MRONLINE (Jan. 12, 2019), <https://mronline.org/2019/01/12/we-have-to-make-sure-the-green-new-deal-doesnt-become-green-capitalism/> [<https://perma.cc/773T-QQYH>] (“*In These Times* spoke with Kali Akuno, director of the CJA-affiliated Cooperation Jackson, a Mississippi-based group that aims to build a ‘solidarity economy’ that is ‘anchored by a network of cooperatives and worker-owned democratically self-managed enterprises.’”).

171. See Will Morrow, *The Political Fraud of Alexandria Ocasio-Cortez’s ‘Green New Deal’*, POPULARRESISTANCE.ORG (Nov. 25, 2018), <https://popularresistance.org/the-political-fraud-of-alexandria-ocasio-cortezs-green-new-deal/> [<https://perma.cc/FJ2S-DLLL>] (discussing Marxist views on the proposed plan).

172. *Id.* (criticizing the Green New Deal).

173. See Liodakis, *supra* note 143, at 11 (“If we are to seriously search for the establishment of sustainability conditions, we should clearly reject, on both theoretical and ideological grounds, the monopoly of dominant neoclassical economics and the attitude or practice of ‘business as usual.’” (citing Peter Söderbaum, *Democracy and Sustainable Development: Implications for Science and Economics*, 60 REAL WORLD ECON. REV. 107 (2012))).

But, as argued, even ecological modernization and apparently radical changes within capitalism will not be adequate. . . . As argued elsewhere, *the conditions of a social and ecological sustainability can be seriously searched for only within a communist perspective*. There is, however, an enormous amount of theoretical and ideological work to be done, as well as social and class struggle, before we can hopefully proceed in this direction. *As follows from our analysis in this paper, in the transformation process towards communism, common property regimes can be developed and tested at various levels*, while social struggle and experimentation will contribute to a crystallization of socially and ecologically more rational institutions. *Common property and collective action, along with a relevant institutional configuration, will most likely promote cooperative interdependence, capture any external effects and increase social efficiency, thus creating the most crucial conditions for a sustainable development and co-evolution with nature.*

Id. (emphasis added) (citations omitted).

President Al Gore really meant when he wrote in his *magnus opus*, *Earth in the Balance*, that a “wrenching” or “radical transformation of society” is needed.¹⁷⁴

In an apparent effort to buttress and build upon the socialist bonafides of the Green New Deal and one of its key House promoters, 2020 Democratic Presidential candidate U.S. Senator Bernie Sanders recently introduced his new \$16.3 trillion climate change plan.¹⁷⁵ It may be recalled that Sanders had previously supported the New Green Deal which the new Bronx congresswoman and U.S. Senator Ed Markey of Massachusetts had introduced earlier this year¹⁷⁶ as a

174. See Bobbie Johnson, *Gore Urges U.S. to Try for 100% Renewable Energy Within a Decade*, THE GUARDIAN (Nov. 9, 2008), <https://www.theguardian.com/environment/2008/nov/10/renewable-energy-alternative-energy> [<https://perma.cc/B7XX-HZLL>] (“[Former Vice President Al Gore] said: ‘The early uses of electricity were aimed at specialised applications and gimmicks.’ But the web’s real purpose, he suggested, was ‘to bring about a higher level of consciousness about our planet and the imminent danger . . . we face *because of the radical transformation in the relationship between human beings and the earth.*’”) (emphasis added); see also Joan Beck, *Even Spin Doctors Can’t Disguise Al Gore’s Eco-Panic*, CHI. TRIBUNE (Sept. 24, 1992), <https://www.chicagotribune.com/news/ct-xpm-1992-09-24-9203270059-story.html> [<https://perma.cc/Y4T4-Z7MZ>] (“What he means is ‘embarking on an all-out effort to use every policy and program, every law and institution, every treaty and alliance, in short, every means to halt the destruction of the environment and to preserve and nurture our ecological system. Minor shifts in policy, marginal adjustments in ongoing programs, moderate improvements in laws and regulations, rhetoric offered in lieu of genuine change—these are all forms of appeasement, designed to satisfy the public’s desire to believe that sacrifice, struggle and a wrenching transformation of society will not be necessary.’ Gore’s ‘sacrifice, struggle and a wrenching transformation of society’ suddenly got translated into ‘new opportunities for jobs’ in the hands of Bill Clinton’s spin doctors. But Gore’s book leaves no doubt whatsoever that the vice presidential candidate advocates severe restrictions on American lifestyles, new global governmental constraints and massive assistance from the United States to Third World countries—all in the service of environmental alarms that are still highly controversial.”).

175. See *The Green New Deal*, BERNIE, <https://berniesanders.com/issues/the-green-new-deal/> [<https://perma.cc/EB5A-45Q8>] (last visited Oct. 15, 2019).

176. See Juana Summers, *Bernie Sanders Unleashes \$16 Trillion Climate Plan that Builds on New Green Deal*, USA TODAY (Aug. 22, 2019), <https://www.usatoday.com/story/news/politics/elections/2019/08/22/bernie-sanders-climate-plan-green-new-deal-follow-costs-16-trillion/2081655001/> [<https://perma.cc/5XPD-9FE7>] (“Sanders’ climate plan provides the most detail yet on how he envisions the climate change moonshot taking shape if he is elected president. Sanders describes his plan, released Thursday, as a ‘ten-year, nationwide mobilization centered on equity and humanity’ that would create 20 million new jobs. The Green New Deal resolution, which Ocasio-Cortez put forth with Sen. Ed Markey of Massachusetts, calls on the nation to eliminate its carbon footprint by 2030 and to shift away from fossil fuels such as oil and coal and replace them with renewable

congressional resolution.¹⁷⁷ Sanders has long referred to the radical transformation of society the New Green Deal (and now, his new climate change plan) would require as engendering “democratic socialism” rather than outright “Marxism.”¹⁷⁸ However, only time will tell whether the changes to be wrought by the “radical transformation of society” Sanders and Gore have called for would be any more or less extreme than the “*progressive* transformation of economy and society” that European “social democracy”-based sustainability or SD and the precautionary principle require.¹⁷⁹

What is certain, currently, is that the philosophical underpinnings of the European precautionary principle, as a central tenet of sustainability or SD, are closely related to post-modernism.¹⁸⁰ The European precautionary principle is obsessed with the uncertainties and potential (possible) hazards that new activities, technologies, and industries may pose to human health and the environment, and thus it does not focus on the probable risks that

energy sources such as wind and solar power.”); *see also* Matthew Daly, *Ocasio-Cortez: No ‘Middle Ground’ on Fighting Climate Change*, AP NEWS (May 13, 2019), <https://apnews.com/4359d6588f9740aca1ab24a9745f2c9d> [<https://perma.cc/HSM8-V82U>] (“Rep. Alexandria Ocasio-Cortez and Sen. Bernie Sanders rallied support for the Green New Deal on Monday night, with the New York congresswoman saying there should be ‘no middle ground’ when it comes to climate change and the Vermont senator calling for a political revolution. . . . The Green New Deal, introduced by Ocasio-Cortez and Sen. Ed Markey of Massachusetts, has been blocked in the Senate, and Democratic House leaders refuse to take it up, but activists and politicians who back the plan are pushing to make it a top issue in the 2020 campaign. . . . The Green New Deal calls for virtual elimination by 2030 of greenhouse gas emissions responsible for global warming and meeting 100 percent of U.S. power demand through renewable and zero-emission energy sources, including nuclear power.”).

177. *See* Recognizing the Duty of the Federal Government to Create a Green New Deal, H.R. Res. 109, 116th Cong., 1st Sess. (2019).

178. Sam Frizwell, *Here’s How Bernie Sanders Explained Democratic Socialism*, TIME (Feb. 20, 2019), <https://time.com/4121126/bernie-sanders-democratic-socialism/> [<https://perma.cc/VQ96-MGN8>] (“In attempt to widen the appeal of his brand of democratic socialism, Vermont Sen. Bernie Sanders on Thursday tied himself to the legacy of Franklin Roosevelt and called for far-reaching social programs to reduce income inequality. . . . ‘When I use the world socialist—and I know some people aren’t comfortable about it—I’m saying that it is imperative,’ Sanders said, that we ‘create a government that works for all and not just the few.’ *Democratic socialism*, Sanders said, is not tied to any Marxist belief or the abolition of capitalism. ‘I don’t believe government should own the means of production, but I do believe that the middle class and the working families who produce the wealth of America deserve a fair deal,’ he said.”).

179. *See* World Comm’n on Env’t & Dev. Aug. Rep., *supra* note 127, at ch.2, 4–5.

180. *See* Bergkamp & Kogan, *supra* note 87, at 499.

specific uses and exposures actually cause. In addition, the European precautionary principle shifts the legal burden of proof from the government showing harm to economic actors showing safety (zero risk, zero harm). It also reduces the scientific evidentiary threshold for establishing harm for ex ante regulatory purposes and for post-hoc judicial relief purposes from direct evidence of causation to indirect correlation¹⁸¹ or even, as this Article will clearly show, to circumstantial “weight-of-the-evidence”-secured by means of abductive reasoning.¹⁸²

The European precautionary principle, in other words, “directly challenges the conventional modern scientific paradigm that requires strong causal evidence.”¹⁸³ Consequently, the entrenched technocratic U.S. federal and state bureaucracies will find it easier to more frequently, extensively, and disproportionately regulate the domestic economic and technological activities of its citizens and residents at the expense of Americans’ natural individual inalienable negative rights to “life, liberty and the pursuit of happiness,” which the U.S. Constitution and U.S. Bill of Rights recognize as sacrosanct.¹⁸⁴ These sacrosanct documents and Americans’ continued faith and belief in the principles of economic and political freedom and liberty for which they stand unfortunately remain the primary, if not the sole, bulwarks against pan-global democratic socialism and Marxism.

III. USEPA’S KEY ROLE IN DEVELOPING PORTIONS OF THE 2012 PROTOCOL TO THE CANADA–U.S. GREAT LAKES WATER QUALITY AGREEMENT INCORPORATING EUROPEAN ENVIRONMENTAL LAW STANDARDS

The evidence reveals that since its initial execution in 1972, successive U.S. administrations have made legal and political commitments to abide by the Great Lakes Water Quality Agreement (GLWQA) and its subsequent amendments. The GLWQA is an executive agreement (as opposed to a treaty)¹⁸⁵ implementing Article

181. See Kogan, *Local Sustainability Movement*, *supra* note 133, at 472.

182. See Lawrence A. Kogan, *Weight of the Evidence: A Lower Expert Evidence Standard Metastases in Federal Courts*, Wash. Legal Found. Critical Legal Issues Working Paper Series No. 215 (forthcoming Feb. 2020), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3524113.

183. Kogan, *Local Sustainability Movement*, *supra* note 133, at 472, n.17.

184. See *id.* at 490–91.

185. See U.S. DEP’T OF STATE, 11 FAM, EXERCISE OF THE INTERNATIONAL AGREEMENT POWER, CONST. REQUIREMENTS 723.2 (2006), <https://fam.state.gov/FAM/11FAM/11FAM0720.html> [<https://perma.cc/D52Y-S8PW>] (explaining the

IV of the Boundary Waters Treaty of 1909.¹⁸⁶ “But it has also taken on a life of its own as one of [the United States’] oldest, and in some ways most durable, international environmental agreement.”¹⁸⁷

The legally binding GLWQA supplemented the prior aspirational Great Lakes Basin Compact into which the eight Great Lakes States had entered in 1955 and to which Congress finally granted its consent in 1968, subject to reservations.¹⁸⁸ The Compact’s general purpose was the regional management of the Great Lakes through adoption of common conservation methods that balanced the states’ various uses of the lakes.¹⁸⁹ The Compact created an interstate agency that continues in operation today known as the Great Lakes Commission consisting of representatives from each of the Great Lakes States,¹⁹⁰ the recommendations of which remain legally *non-binding*.¹⁹¹

distinction between treaties and international agreements other than treaties—i.e., executive agreements). “International agreements (regardless of their title, designation, or form) whose entry into force with respect to the United States takes place only after the Senate has given its advice and consent are ‘treaties.’” *Id.* at 723.2-1.

International agreements brought into force with respect to the United States on a constitutional basis other than with the advice and consent of the Senate are ‘international agreements other than treaties.’ (The term ‘sole executive agreement’ is appropriately reserved for agreements made solely on the basis of the constitutional authority of the President.)

Id. at 723.2-2.

186. See discussion *infra* Section III.E (concerning the Boundary Waters Treaty of 1909).

187. See Bradley C. Karkkainen, *The Great Lakes Water Resources Compact and Agreement: Transboundary Normativity Without International Law*, 39 WM. MITCHELL L. REV. 997, 1007 (2013), <https://open.mitchellhamline.edu/cgi/viewcontent.cgi?article=1511&context=wmlr> [<https://perma.cc/8HUA-FHRY>].

188. See generally GREAT LAKES COMM’N, *2018 Annual Report*.

189. See Pub. L. No. 90-419, 82 Stat. 414 (1968).

190. Great Lakes Water Quality Agreement, Can.–U.S., Sept. 7, 2012, at 8 (“Since 1999, the Canadian provinces of Ontario and Québec have served as associate members. The states and provinces are represented on the GLC by delegation members appointed by each jurisdiction.”).

191. See 82 Stat. at 417–18; see also Kelly Kane, *The Great Lakes–St. Lawrence River Basin Agreement: What Happens in the Great Lakes Won’t Stay in the Great Lakes*, 25 MICH. ST. INT’L L. REV. 429, 434–35 (2017) (“A major downfall of the Basin Compact is that it is not legally binding. Any recommendations made by the Commission are advisory only, and it therefore has no actual legal authority to enable it to protect the Lakes.”).

A. Successive U.S. Administrations' Commitment to the GLWQA Since 1972

The GLWQA was originally executed by Canada and the United States on April 15, 1972.¹⁹² Later that year, on October 18, 1972, Congress and the President enacted into law the Federal Water Pollution Control Act, the predecessor to the Clean Water Act of 1977.¹⁹³ Canada and the United States subsequently amended the GLWQA in 1978 and 1987.¹⁹⁴ “[T]he 1978 Agreement introduced the concept of an ecosystem approach to management This was the first time an international agreement of any kind had embraced an ‘ecosystem approach’ and such a sweeping, multi-faceted ecological restoration goal”¹⁹⁵

However, the most far-reaching changes to the 1972 GLWQA were made during the Obama administration. Articles 2 and 4 and Annexes 2.B and 10 of the new 2012 version of the treaty incorporate European legal standards such as the precautionary principle. While the Trump Administration revoked the Obama Administration Oceans Policy, which had incorporated the European precautionary principle, it surprisingly remained consistent with prior administrations and chose not to cease U.S. funding and implementation of the GLWQA. Arguably, the Trump administration was either unaware of or misadvised regarding the incorporation of that and other foreign legal standards within this new GLWQA version.

The Obama administration’s Ocean Policy Task Force Final Recommendations well-recognized that the resources of the Great Lakes “are governed, in part, by a body of law, treaties, and regional policy that is distinct from our ocean and other coast areas. *Of paramount significance is the Great Lakes Water Quality Agreement (GLWQA) with Canada and its implementation under various Federal laws . . . through use of ecosystem-based management.*”¹⁹⁶

192. See *Canada and U.S. Great Lakes Water Quality Agreement: Overview*, *supra* note 39.

193. See Federal Water Pollution Control Act, Pub. L. No. 92-500, 86 Stat. 816 (1972); *History of the Clean Water Act*, EPA, <https://www.epa.gov/laws-regulations/history-clean-water-act> [[https://perma.cc/ 2UW8-4HJC](https://perma.cc/2UW8-4HJC)] (last updated Aug. 8, 2017).

194. See Int’l Joint Comm’n, *A Guide to the Great Lakes Water Quality Agreement: Background for the 2006 Governmental Review*, at 1–2 (2006).

195. Karkkainen, *supra* note 187, at 1009.

196. WHITE HOUSE COUNCIL, *supra* note 80, at 50 (emphasis added).

B. The Obama Administration's Significant Amendment of the GLWQA in 2012

On September 7, 2012, the USEPA Administrator and Canada's Environment Minister executed a significant amendment to the GLWQA that has since superseded the 1972 Agreement, as amended.¹⁹⁷ It entered into force on February 12, 2013.¹⁹⁸ The new 2012 GLWQA was intended to facilitate "United States and Canadian action on threats to Great Lakes water quality and include[d] *strengthened measures to anticipate* and prevent ecological harm."¹⁹⁹ Indeed, USEPA proudly displays on its website a page entitled "Great Lakes Water Quality Agreement (GLWQA)."²⁰⁰ This agency website describes the GLWQA as "a *commitment* between the United States and Canada to restore and protect the waters of the Great Lakes" and as providing "a framework for identifying binational priorities and implementing actions that improve water quality. *EPA coordinates U.S. activities under the Agreement.*"²⁰¹ USEPA coordinates U.S. activities from the Chicago, Illinois-based Great Lakes National Program Office (GLNPO).²⁰² The GLNPO is located at the USEPA Region 5 offices.²⁰³ USEPA Region 5 covers six of the Great Lakes States: Minnesota, Wisconsin, Illinois, Indiana, Michigan, and Ohio.²⁰⁴

EPA neglects to mention anywhere on its website that each of the three key principles identified in the Obama administration's Final Recommendations and the National Ocean Plan—precautionary

197. Press Release, EPA, United States and Canada Sign Amended Great Lakes Water Quality Agreement (Sept. 7, 2012) (on file at the EPA website archive) (emphasis added), https://archive.epa.gov/epapages/newsroom_archive/newsreleases/9e6415ec5260e5c885257a7200669766.html [<https://perma.cc/ZG84-JQ3H>].

198. See generally Great Lakes Water Quality Agreement, *supra* note 190.

199. *Id.*; see generally Great Lakes Water Quality Agreement, *supra* note 190.

200. *Great Lakes Water Quality Agreement*, EPA, <https://www.epa.gov/glwqa> [<https://perma.cc/U8MM-ZX2T>] (last updated Jan. 29, 2019) (emphasis added); *Great Lakes Water Quality Agreement – GLWQA Annexes*, EPA, <https://www.epa.gov/glwqa/glwqa-annexes> [<https://perma.cc/3ZHR-UQ38>] (last updated Mar. 2, 2018).

201. *Id.*

202. See *About EPA – About the Great Lakes National Program Office (GLNPO)*, EPA, <https://www.epa.gov/aboutepa/about-great-lakes-national-program-office-glnpo> [<https://perma.cc/HMG4-W628>] (last updated Aug. 21, 2018).

203. See *id.*

204. See *About EPA – EPA Region 5*, EPA, <https://www.epa.gov/aboutepa/epa-region-5> [<https://perma.cc/XS2P-XHRM>] (last updated Oct. 17, 2019).

approach/Europe's precautionary principle, ecosystem-based management, and marine spatial planning—are included within the GLWQA as legal obligations the United States and Canada must assume *as a matter of international and federal law*. USEPA also neglects to mention that of the nine Regional Planning Bodies serving the nine regional planning areas the Final Recommendations and the National Ocean Policy had previously established, only the Great Lakes Regional Planning Body has included, besides USEPA, a foreign government—i.e., the Government of Canada—as a participant. It is the Regional Planning Bodies that work to develop regional goals, objectives, and, ultimately, regional coastal and marine spatial plans (CMSP).²⁰⁵

C. The Trump Administration's Revocation of the Obama Administration Oceans Policy Does *Not* Stop U.S. Implementation of GLWQA

The Trump administration recently issued Executive Order 13840 titled “Ocean Policy To Advance the Economic, Security, and Environmental Interests of the United States.”²⁰⁶ This Order revoked the Obama administration's Executive Order 13547, “Stewardship of the Ocean, Our Coasts, and the Great Lakes,”²⁰⁷ which had directed federal agencies to adopt and implement the Final Recommendations. Nevertheless, the Great Lakes Regional Planning Body and the fundamental principles pursuant to which its work program had been undertaken will effectively live on within the work of one or more of the bodies the U.S. and Canadian governments previously established to fulfill the international law obligations each assumed under the GLWQA. In other words, these principles will persist so long as congressional appropriations continue to support USEPA's implementation of the GLWQA.²⁰⁸ Based on the author's knowledge and experience and as noted below, the Congress and the President (who is likely unaware of the European/international environmental

205. See WHITE HOUSE COUNCIL, *supra* note 80, at 8, 46.

206. Exec. Order No. 13,840, 83 Fed. Reg. 29431 (June 22, 2018).

207. See *Executive Order Regarding the Ocean Policy to Advance the Economic, Security, and Environmental Interests of the United States*, WHITEHOUSE.GOV § 7 (June 19, 2018), <https://www.whitehouse.gov/presidential-actions/executive-order-regarding-ocean-policy-advance-economic-security-environmental-interests-united-states/> [<https://perma.cc/5VAY-QHZ7>]; *Ocean Policy to Advance the Economic, Security, and Environmental Interests of the United States*, 83 Fed. Reg. 29,431 (June 22, 2018).

208. See 33 U.S.C. § 1268(a)(C); 33 U.S.C. § 1268(c)(1)(A)–(c)(2)(A).

law hidden within this treaty's four corners because he has been poorly or misadvised) have continued to fund the implementation of the GLWQA.²⁰⁹

D. GLWQA Articles 4 and 2 Incorporate the European Precautionary Principle, Ecosystem-Based Management, and Weight-of-Evidence Standards

Article 4.1 of the GLWQA requires the government of the State of Michigan, along with the other Great Lakes State governments, to cooperate with the federal governments of Canada and the United States to develop and implement programs and other measures to fulfill the purpose of said Agreement “*in accordance with the Principles and Approaches set forth in Article 2.*”²¹⁰ Article 4.2 of the GLWQA states that said programs and other measures shall include but are not limited to pollution abatement, control, and prevention programs; conservation programs; and *enforcement actions and other measures to ensure the effectiveness of the programs described above.*²¹¹ Article 4.3. of the GLWQA provides that the U.S. government had committed itself to seek enactment of any legislation necessary to implement the programs and other measures developed under Article 4 with cooperation, input, and advice from downstream jurisdictions.²¹²

1. *European Precautionary Principle*

Significantly, Article 2.4(i) of the GLWQA imposes upon all treaty parties the directive to employ a “precautionary approach as set forth in the Rio Declaration on Environment and Development . . . in

209. See, e.g., Consolidated Appropriations Act, 2014, P.L. 113-76, 113th Cong. (Jan. 17, 2014), 128 Stat. 5, 128 Stat. 238-239, 128 Stat. 320; Consolidated Appropriations Act, 2017, P.L. 115-31, 115th Cong. (May 5, 2017), 131 Stat. 135, 131 Stat. 475-476; Consolidated Appropriations Act, 2018, P.L. 115-141, 115th Cong. (March 23, 2018), 132 Stat. 348, 132 Stat. 669; Consolidated Appropriations Act, 2019, P.L. 116-6, 116th Cong. (Feb. 15, 2019), 133 Stat. 13, 133 Stat. 240-241. Through each of these consolidated acts, Congress authorized the USEPA to transfer up to \$300 million of the funds appropriated for the Great Lakes Restoration Initiative to carry out activities that would support *inter alia* the implementation of the Great Lakes Water Quality Agreement. See also *infra* Section V.B.

210. Great Lakes Water Quality Agreement, *supra* note 190, at art. 4.1 (emphasis added).

211. *Id.* at arts. 4.2(a), 4.2(c), 4.2(d).

212. See *id.* at arts. 4.3(c), 4.3(d), 4.3(f).

order to achieve the purpose of this Agreement.”²¹³ In addition, Article 2.4(f) imposes upon all treaty parties the directive to employ the ecosystem-based management (precautionary) approach, “taking management actions that integrate the interacting components of air, land, water, and living organisms, including humans.”²¹⁴ As discussed above (regarding the Obama administration’s Ocean Policy Task Force Final Recommendations), despite the use of precautionary approach documentation language, the actual practice on the ground has been to resort to the “strong” European precautionary principle for compliance and enforcement purposes. Subject to these principles, Article 3.1(a)(v) imposes the general obligation to “*support healthy and productive wetlands* and other habitats to sustain resilient populations of native species.”²¹⁵ In addition, Article 1(j) imposes the directive to employ “tributary management” focused on restoration of surface waters flowing into the “Waters of the Great Lakes,” namely tributaries with a *substantial nexus* to “waters of the United States,” including wetlands.²¹⁶

It is important to emphasize that although the amended 2012 GLWQA text includes “precautionary approach” language, the federal Government of Canada incorporated the stronger *precautionary principle* and the ecosystem-based management approach within the Canadian Environmental Protection Act of 1999 (CEPA 1999).²¹⁷ For example, Preamble paragraph 6 of CEPA 1999 states that “the Government of Canada is committed to implementing the *precautionary principle* that, where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”²¹⁸ CEPA 1999 Article 2(1)(a) states that the Government of Canada shall “apply the precautionary principle” in the exercise of its powers to “protect the environment and public health.”²¹⁹ CEPA 1999 Article 2(1)(c) states that the Government of Canada also shall “implement an ecosystem approach that considers the unique and fundamental characteristics of ecosystems.”²²⁰ CEPA 1999 Part 3, Article 54(1)(b) provides that “[f]or [the] purpose of

213. *Id.* at art. 2.4(i).

214. *Id.* at arts. 2.4(b), 2.4(f), pmb., para. 6.

215. *Id.* at art. 3.1.(a)(v) (emphasis added).

216. *Id.* at arts. 1(j), 2.4(n).

217. *See* Canadian Environmental Protection Act, S.C. 1999, c 33 (Can.).

218. *Id.* at pmb., para. 6 (emphasis added).

219. *Id.* at art. 2(1)(a).

220. *Id.* at art. 2(1)(c).

carrying out the Minister's mandate related to preserving the quality of the environment, the Minister shall issue . . . environmental quality guidelines specifying recommendations in quantitative or qualitative terms to support and maintain particular uses of the environment."²²¹ Chapter 3 of the Government of Canada's "Guide to Understanding the Canadian Environmental Protection Act, 1999" includes "sustainable development" and the "precautionary principle" as among the "key" guiding principles informing the Canadian government's implementation of that statute.²²² Also among the "key" guidelines is the "Framework for the Application of Precaution in Science-based Decision Making about Risk."²²³

2. Weight-of-Evidence Approach

Implicit, if not explicit, in the Canadian government's obligatory implementation of the European precautionary principle is its use of a "weight-of-evidence approach" in performing semi-quantitative and qualitative risk assessments.²²⁴ Such use likely harkens back to a 1994 International Joint Commission (IJC) workshop report discussed below and to more recent international environmental law and World Trade Organization jurisprudence.²²⁵

It was no coincidence, however, that on September 28, 2012 (three weeks to-the-day following former Obama administration USEPA administrator Lisa Jackson's execution of the GLWQA's

221. *Id.* at art. 54(1)(b).

222. GOV'T OF CAN., A GUIDE TO UNDERSTANDING THE CANADIAN ENVIRONMENTAL PROTECTION ACT 3, 5, 7 (2004).

223. GOV'T OF CAN., A FRAMEWORK FOR THE APPLICATION OF PRECAUTION IN SCIENCE-BASED DECISION MAKING ABOUT RISK 2 (2003).

224. *See* A GUIDE TO UNDERSTANDING THE CANADIAN ENVIRONMENTAL PROTECTION ACT, *supra* note 222, at 5, 7.

225. *See* Lawrence A. Kogan, *REACH Revisited: A Framework for Evaluating Whether a Non-Tariff Measure Has Matured into an Actionable Non-Tariff Barrier to Trade*, 28 AM. U. INT'L L. REV. 489, 577–82, 610–13 (2013) (discussing the efforts of the European Union to change the paradigm of traditional quantitative risk assessment to semi-quantitative and qualitative risk assessment as an international science standard over the course of several World Trade Organization General Agreement on Tariffs and Trade (GATT) and Technical Barriers to Trade (TBT) Agreement decisions, and how the chemical safety reports—comprising part of the EU REACH regulation's registration technical dossiers the European Commission—required for imported high volume chemicals must contain references to "qualitative" or "semi-quantitative" risk assessments, the goal of which is to establish that chemical substances pose *zero risk* to human health or the environment, consistent with the European precautionary principle).

legally significant 2012 amendments on September 7, 2012), the USEPA Science Advisory Board (SAB), a federal advisory committee,²²⁶ delivered to the former administrator its recommendations²²⁷ for further expanding and refining the Draft Ecological Assessment Action Plan of the SAB's standing committee—the Risk Assessment Forum (RAF).²²⁸ The SAB RAF had developed and initially released that Action Plan in August 2011,²²⁹ and it was subsequently reviewed by the USEPA SAB's now-defunct Ecological Processes and Effects Committee (EPEC)²³⁰ in February 2012.²³¹ The SAB September 2012 recommendations found that “use of weight-of-evidence approaches in ecological risk assessments; improved communication of ecological assessment issues and results to decision-makers; and incorporation of ecosystem services into ecological risk assessment methods . . . have the greatest likelihood of achieving the agency's goals in the near term.”²³² However, the USEPA SAB recognized that successful employment of ecological risk assessment “frameworks for weighing and integrating multiple lines of evidence . . . will hinge on a weight-of-evidence [WOE] determination” that is reliant upon “statistically-based decision points

226. See *All Federal Advisory Committees at EPA*, EPA, <https://www.epa.gov/faca/all-federal-advisory-committees-epa> [<https://perma.cc/W7NW-C5J5>] (last updated Oct. 23, 2019) (noting the EPA SAB is a chartered federal advisory committee of the EPA that “[p]rovides independent advice and peer review to EPA's Administrator on the scientific and technical aspects of environmental issues”); see also *Federal Advisory Committee Act*, Pub. L. No. 92-463, 86 Stat. 770 (1972) (highlighting that the SAB is subject to the federal advisory committee act).

227. See Office of the Adm'r Sci. Advisory Bd., *SAB Review of the EPA's Ecological Assessment Action Plan* (Sept. 28, 2012).

228. See *Risk Assessment Forum*, EPA OFFICE OF THE SCI. ADVISOR, <https://archive.epa.gov/raf/web/html/index.html> [<https://perma.cc/XEW3-FBH5>] (last updated Feb. 20, 2016); *About the Forum*, EPA OFF. OF THE SCI. ADVISOR, <https://archive.epa.gov/raf/web/html/aboutraf.html> [<https://perma.cc/J36A-E73D>] (last updated Feb. 20, 2016).

229. See EPA, *ECOLOGICAL ASSESSMENT ACTION PLAN* (2016).

230. See *Committees and Membership*, EPA, <https://yosemite.epa.gov/sab/sabproduct.nsf/WebBOARD/CommitteesandMembership> [<https://perma.cc/W5CC-ALK3>] (last updated June 21, 2018) (discussing how EPA SAB had voted on May 21, 2018, to retire the EPEC).

231. See Memorandum on Transmittal of RAF Ecological Action Plan and Charge to the SAB EPEC from Edward Ohanian, Chair, EPA Risk Assessment Forum, to Thomas Armitage, EPA Sci. Advisory Bd. Staff Office (Jan. 20, 2012) (on file with the EPA).

232. Cover Letter on SAB Review of the EPA's Ecological Assessment Action Plan from Office of the Adm'r Sci. Advisory Bd., to Hon. Lisa P. Jackson, Adm'r, EPA (Sept. 28, 2012) (on file with the EPA).

rather than best professional judgment,” which do not presently exist.²³³

According to the 2012 SAB Recommendations, “[a] well-developed WOE approach would enable risk assessors to assign quantitative weights to results from different studies (with associated estimates of uncertainty) and to combine them into an assessment of defined risk.”²³⁴ The SAB, however, admonished USEPA regarding the “number of challenges inherent in using WOE in ecological risk assessments for decision-making.”²³⁵ For example, ecological risk assessments are not as amenable to formalization as are the human health risk assessments (which have discrete or common endpoints) to which the WOE approach has been applied.²³⁶ And since “WOE approaches have often been based on best professional judgment[, they] . . . have varied widely in their scientific rigor and statistical credibility.”²³⁷ Consequently, the USEPA SAB recommended that the lines of evidence (LOE) used in the WOE process “should adequately characterize physical, chemical and biological conditions” and the “quality of the data underlying a particular LOE should factor into the assigned weights.”²³⁸

As the SAB concluded, “[t]he ‘bottom-line’ is that integration of different lines of evidence is essential given that ‘today’s environmental challenges are increasingly subtle and complex’ . . . particularly so given the reality of global climate change.”²³⁹ As of 2012, the SAB conceded that “[d]ata quality and the reliability of different studies should also be considered in a WOE approach. Applying an arbitrary weighting scheme without a solid theoretical foundation to integrate different LOE into a single risk score may not actually improve decision-making.”²⁴⁰ In addition, the SAB admitted that the weight-of-evidence approach had been employed as a “qualitative” professional judgment-based tool bereft of a probabilistic basis.²⁴¹ “The evaluation of WOE has progressed

233. SAB Review of the EPA’s Ecological Assessment Action Plan, *supra* note 227, at 2.

234. *Id.* at 3.

235. *Id.*

236. *See id.*

237. *Id.*

238. *Id.* at 4.

239. *Id.* at 12, 15–18 (citing “(Anasta 2012) . . . (cf. U.S. Fish and Wildlife Service and National Oceanic and Atmospheric Administration 2012”).

240. SAB Review of the EPA’s Ecological Assessment Action Plan, *supra* note 227, at 18.

241. *See id.* at 19.

over the years but as it is currently practiced, WOE is a qualitative tool without a probabilistic basis. A WOE is essentially a Bayesian approach without a realization of the calculation.”²⁴²

The 2012 SAB Recommendations regarding how to properly employ WOE to ecological risk assessments must be taken with a grain of salt, however, because SAB significantly failed to address and arguably misrepresented WOE’s successful use in human toxicological risk assessments. As the National Research Council (NRC) subsequently reported in its 2014 review of USEPA’s Integrated Risk Information System (IRIS), it is clear that the EPA had actually used WOE in a scientifically unreliable manner to integrate lines of evidence of various qualities into a single judgment for purposes of assessing identified *possible hazards* rather than *probable risks* posed by toxic chemicals to human health.²⁴³ According to the USEPA SAB,

the phrase weight of evidence has become far too vague as used in practice today and thus is of little scientific use. In some accounts, it is characterized as an oversimplified balance scale on which evidence supporting hazard is placed on one side and evidence refuting hazard on the other, without aggregating the weight on either side of the balance or assigning weights to each individual study on each side. . . . [I]ts use in the literature and by scientific agencies, including EPA, is vague and varied.²⁴⁴

Indeed, the NRC report noted the paucity of high-quality human data and animal data for most of the toxic chemicals in commercial use in the United States. It concluded, therefore, that the best evidence USEPA could assemble would be based on inferences drawn from a chemical’s (or similar compound’s) *potential* toxicity or the putative mechanism by which a chemical *might* (possibly) cause harm.²⁴⁵ In effect, the NRC had implied that USEPA’s employment of an administrative presumption of harm/hazard via application of Europe’s precautionary principle as the basis of a WOE approach to integrating various lines of qualitative evidence of the hazard(s) toxic chemicals posed to human health was not scientifically reliable.²⁴⁶

At least one allegedly peer reviewed article released in 2015 agreed with the NRC’s conclusion that the “weight-of-evidence” process was “too vague and detractive to the practice of evaluating

242. *Id.*

243. NAT’L RES. COUNCIL, REVIEW OF EPA’S INTEGRATED RISK INFORMATION SYSTEM (IRIS) PROCESS 86–87 (National Academies Press 2014).

244. *Id.*

245. *Id.* at 87.

246. *See id.* at 86–87.

human health risks of chemicals.”²⁴⁷ It acknowledged how “many [WOE] applications have been largely qualitative and subjective in nature” and that “[m]oving the [WOE] methodology away from qualitative, vague and controversial methods towards generalizable, quantitative and transparent methods for appropriately managing diverse lines of evidence is paramount for both regulatory and public acceptance of hazard assessments.”²⁴⁸

In December 2016, just prior to the close of the Obama administration, the USEPA SAB Risk Assessment Forum (RAF) released its WOE guidelines, which the SAB had previously recommended in 2012.²⁴⁹ The SAB RAF document stated that it “provides a framework, a set of properties of evidence, a scoring system, tables for presenting results of weighting, and weighing evidence, a system for organizing evidence in terms of types and the characteristics they address and a means of dealing with ambiguous or discrepant results.”²⁵⁰ In addition, it stated that the framework and methods “also provide an integrated approach to both infer a quality of interest and estimate an associated quantitative value.”²⁵¹

The 2016 USEPA WOE Guidelines define WOE “as an *inferential process* that assembles, evaluates, and integrates evidence to perform a *technical inference* in an assessment. [WOE] methods have been derived to estimate a quantity, inform model selection, or reach *qualitative* conclusions in an assessment.”²⁵² The 2016 USEPA

247. See Igor Linkov et al., *From ‘Weight of Evidence’ to Quantitative Data Integration Using Multicriteria Decision Analysis and Bayesian Methods*, 32(1) ALTEX 3, 3 (2015); see also ALTEX, <https://www.altex.org/index.php/altex> [https://perma.cc/2EV5-VZFT] (last visited Oct. 30, 2019).

248. Linkov et al., *supra* note 247, at 3.

249. See generally EPA, EPA/100/R-16/001, WEIGHT OF EVIDENCE IN ECOLOGICAL ASSESSMENT (2016).

250. *Id.* at xi.

251. *Id.*

252. *Id.* at 1 (emphasis added) (citations omitted).

As part of that *inferential process*, WoE characterizes properties of pieces of evidence and of bodies of evidence. First, WoE determines the degree of support for a hypothesis that a piece or type of evidence provides (i.e., the weight of a piece of evidence dropped into a pan of the scales). Hence, weights indicate which pieces and types of evidence make the greatest contribution to the inference. Second, WoE determines the degree of support for a hypothesis, relative to alternatives, that the available body of evidence provides (i.e., the accumulated weight in one pan relative to the other). These cumulative weights not only inform inferences, they also indicate how much confidence assessors have in the conclusion.

Id. (citations omitted).

WOE Guidelines state that in the context of the Clean Water Act, WOE is used “to determine the cause of biological impairment” of a waterbody.²⁵³ According to the guidelines, “[o]nce the cause of water body impairment has been determined, the sources can be identified so that [Total Maximum Daily Loads (TDMLs)] can be developed.”²⁵⁴ In addition, the guidelines note that “[t]he TMDL process often includes evaluation of the results, which can lead to removal of the stream reach from the 303(d) list. This outcome assessment can rely on biological endpoints and could involve [WOE].”²⁵⁵

The 2016 USEPA WOE Guidelines provide a summary of the proposed WOE framework,²⁵⁶ as well as the following conclusory statement: “In summary, this document is intended to help ecological assessors improve the practice of [WOE] without imposing burdensome prescriptions.”²⁵⁷ The Guidelines then set forth differing WOE methods: for quantitative results in Appendix B;²⁵⁸ for deriving a computational (mathematical) model (i.e., model selection by weight-of-evidence, model comparisons, weighting of evidence for model assumptions) in Appendix C;²⁵⁹ and for qualitative conclusions in Appendix D.²⁶⁰ The Guidelines also set forth in Appendix E “characteristics of inferred qualities” which include characteristics of both “specific causation” and “general causation,” called “Cormier’s causal characteristics,” and characteristics of biological impairment.²⁶¹ This appendix is rather curious because it states that causal characteristics “can be used to demonstrate that, at least in [specific] cases, the agent *could* cause the effect,” not *does* cause the effect.²⁶² This statement is significant because Europe’s precautionary principle focuses on possible hazards theoretically *capable of* causing (i.e., that *could* cause) harm, rather than on probable risks scientifically

253. *Id.* at 10.

254. *Id.* (citations omitted).

255. *Id.*

256. *See id.* at 59 (presenting a Weight-of-Evidence Summary).

257. *Id.* at 60.

258. *See id.* at apps. B-1 to -4 (outlining Weight-of-Evidence methods for quantitative results).

259. *See id.* at app. C-1 (outlining Weight-of-Evidence methods for deriving a model).

260. *See id.* at apps. D-1 to -6 (outlining Weight-of-Evidence approaches for qualitative conclusions).

261. *Id.* at apps. E-1 to -4.

262. *Id.* at apps. E-1 to -4 (outlining Weight-of-Evidence Characteristics of Inferred Qualities) (emphasis added).

demonstrated to cause harm.²⁶³ This effectively translates into a *general* causation evidentiary standard at trial.²⁶⁴

Likely concerned that the new Trump administration would not support the “last minute” WOE guidelines released at the close of the Obama administration, USEPA employees set out to publish an allegedly peer-reviewed article that would extol the guidelines’ perceived virtues.²⁶⁵ During November 2017, for example, three EPA employees jointly authored an article published in the *Journal of Integrated Environmental Assessment and Management* entitled “A Weight of Evidence Framework for Environmental Assessments: Inferring Qualities,”²⁶⁶ to which the publisher subsequently granted the public access. This article applauded the USEPA for having “developed a generally applicable framework . . . [that] can increase the consistency and rigor of [WOE] practices and provide greater transparency than ad hoc and narrative-based approaches.”²⁶⁷ The article’s authors concluded that the basic WOE framework “can help to achieve that goal without being so prescriptive or onerous that it inhibits the production of useful environmental assessments.”²⁶⁸

The 2017 article’s “cheerleading” of the USEPA WOE Guidelines raises certain red flags concerning the objectivity and independence of its authors who also had authored and/or contributed to the 2016 USEPA WOE Guidelines.²⁶⁹ Indeed, the three authors of the 2017 article acknowledged it had been derived from the 2016 USEPA WOE Guidelines.²⁷⁰ For example, Glenn W. Suter was the lead/primary author of the 2017 article and of the 2016 USEPA WOE Guidelines.²⁷¹ Susan Cormier and Mace G. Barron co-authored the 2017 article and served as technical contributors to the 2016 USEPA

263. See *supra* Section III.D.1.

264. See Kogan, *Weight of the Evidence*, *supra* note 182 (quoting *Milward v. Acuity Special Prods. Grp.*, 639 F.3d 11, 13 (1st Cir. 2011)); see also RESTATEMENT (THIRD) OF TORTS § 28 cmt. c(4) (2010) (“[T]o establish general causation at trial, one must show the association [i.e., between a substance and a disease] is merely plausible or possible, whereas ‘specific causation’ exists when exposure to an agent cause a particular plaintiff’s disease.”).

265. Glen Suter et al., *A Weight of Evidence Framework for Environmental Assessments: Inferring Qualities*, 13 INTEGRATED ENVTL. ASSESSMENT MGMT. 966, 1038–44 (2017).

266. *Id.*

267. *Id.* at 1038.

268. *Id.* at 1043.

269. See *id.* at 1038–44.

270. See *id.*

271. See *Risk Assessment Forum*, *supra* note 228, at 9.

WOE Guidelines.²⁷² Suter's and Cormier's authorship of portions of the 2016 USEPA WOE Guidelines, in fact, ensured that a number of their respective publications were listed as references sources (eight articles for Suter and six articles for Cormier).²⁷³

Within the 2016 USEPA WOE Guidelines themselves, various other red flags arise concerning the objectivity and independence of three of the four persons selected as "External Peer Reviewers."²⁷⁴ A close review of the Guidelines reveals that four articles previously authored/coauthored by external peer reviewer Peter Chapman, one article previously authored/coauthored by external peer reviewer Valery Forbes, and four articles previously authored/coauthored by external peer reviewer Igor Linkov had been included as reference sources in the Guidelines.²⁷⁵ In addition, external peer reviewer Chapman, an environmental consultant, also was a member of the now-defunct USEPA SAB standing committee known as the Ecological Processes and Effects Committee (EPEC) that had reviewed the 2011 SAB RAF Action Plan and developed the SAB RAF's 2012 recommendations.²⁷⁶ Curiously, these recommendations had cited Chapman's own work (three authored/coauthored articles), Cormier's work (four authored/coauthored articles), Suter's work (three authored/coauthored articles), and external peer reviewer Linkov's work (two authored/coauthored articles).²⁷⁷ Such self- and cross-citation practices strongly suggest a lack of objectivity, if not a lack of independence of each of the authors, as well as a flawed peer review process in contravention of the federal standards of the Information Quality Act.²⁷⁸

3. Information/Data Quality and Independent Peer Review

Although USEPA secured SAB external peer review of the 2016 WOE Guidelines, the agency failed to ensure that the review complied with the federal Information Quality Act (IQA)²⁷⁹ peer review

272. *See id.*

273. *See id.*

274. *Id.*

275. *See id.*

276. *See id.*

277. *See id.*

278. *See* Information Quality Act, Pub. L. 106-544, 114 Stat. 2763, 2763A-153 to -154 (2000) (codified at 44 U.S.C. § 3516 (2000)).

279. *See id.*

standards²⁸⁰ and the standards to ensure information quality, objectivity, utility, and integrity that the White House Office of Management and Budget's Office of Information and Regulatory Affairs (OMB-OIRA) had promulgated.²⁸¹ Arguably, the SAB external peer review of the 2016 WOE Guidelines also failed to meet the EPA's own IQA Guidelines²⁸² and Peer Review Handbook.²⁸³ The 2016 WOE Guidelines were subject to these standards because USEPA had publicly represented the WOE Guidelines as agency knowledge of scientific facts or data (i.e., scientific information,²⁸⁴ including scientific assessments,²⁸⁵ or even "influential scientific information")²⁸⁶ reflecting the agency's point of view, which the agency communicated and disseminated to the public via its agency website.²⁸⁷ "OMB's guidelines establish a rebuttable legal

280. See Final Information Quality Bulletin for Peer Review, 70 Fed. Reg. 2664 (Jan. 14, 2005).

281. See Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies, 67 Fed. Reg. 8452 (Feb. 22, 2002).

282. See EPA, EPA/260R-02-008, GUIDELINES FOR ENSURING AND MAXIMIZING THE QUALITY, OBJECTIVITY, UTILITY, AND INTEGRITY OF INFORMATION DISSEMINATED BY THE ENVIRONMENTAL PROTECTION AGENCY (2002).

283. See EPA, SCIENCE AND TECHNOLOGY POLICY COUNCIL PEER REVIEW HANDBOOK (4th ed. 2015).

284. See Final Information Quality Bulletin for Peer Review, 70 Fed. Reg. at 2675 ("5. The term 'scientific information' means factual inputs, data, models, analyses, technical information, or scientific assessments based on the behavioral and social sciences, public health and medical sciences, life and earth sciences, engineering, or physical sciences. This includes any communication or representation of knowledge such as facts or data, in any medium or form, including textual, numerical, graphic, cartographic, narrative, or audiovisual forms. This definition includes information that an agency disseminates from a Web page, but does not include the provision of hyperlinks to information that others disseminate.").

285. *Id.* ("7. The term 'scientific assessment' means an evaluation of a body of scientific or technical knowledge, which typically synthesizes multiple factual inputs, data, models, assumptions, and/or applies best professional judgment to bridge uncertainties in the available information. These assessments include, but are not limited to, state-of-science reports; technology assessments; *weight-of-evidence analyses*; meta-analyses; health, safety, or ecological risk assessments; toxicological characterizations of substances; integrated assessment models; hazard determinations; or exposure assessments.") (emphasis added).

286. *Id.* ("6. The term 'influential scientific information' means scientific information the agency reasonably can determine will have or does have a clear and substantial impact on important public policies or private sector decisions.").

287. See Lawrence A. Kogan, *Revitalizing the Information Quality Act as a Procedural Cure for Unsound Regulatory Science: A Greenhouse Gas Rulemaking Case Study 5* (Wash. Legal Found. Critical Legal Issues Working Paper Series, Working Paper No. 191, 2015).

presumption of ‘objectivity’ in favor of formal, independent, external peer reviews of agency-disseminated scientific information or assessments.”²⁸⁸

Peer reviews of influential scientific information “may be conducted either internally or externally—i.e., they may be conducted and managed either by the federal agency itself or by an independent third-party entity the federal agency has commissioned to manage the peer review.”²⁸⁹ USEPA has exercised its discretion to permit internal as well as external peer reviews of third-party information, depending on its importance.²⁹⁰ USEPA’s Peer Review handbook provides that review by an established federal advisory committee, such as the EPA’s Scientific Advisory Board (SAB), constitutes an example of an acceptable external peer review mechanism.²⁹¹ However,

when external peer review is conducted under the auspices of the Science Advisory Board (SAB) . . . the SAB Staff Office in the Office of the Administration is responsible for selecting and vetting independent experts The SAB Staff Office selects peer reviewers after a public nomination and comment process and after evaluating candidates for potential COIs [conflicts-of-interest] or appearance of a loss of impartiality.²⁹²

USEPA deems reports produced by the SAB as products of independent peer review.²⁹³ “Peer reviews conducted by stakeholders of their own products may be considered peer input *but not independent peer review*, unless principles and policies articulated in the USEPA’s Peer Review Handbook can be applied.”²⁹⁴ USEPA considers peer review by refereed scientific journals “as adequate for reviewing the scientific credibility and validity of the findings (or data) in that article, and therefore, a satisfactory form of peer review.”²⁹⁵

288. *Id.*

289. *Id.* at 6.

290. *See* SCIENCE AND TECHNOLOGY POLICY COUNCIL PEER REVIEW HANDBOOK, *supra* note 283, at 53–55 (“[Influential scientific information] intended to support the most important decisions, or for work products that have special importance in their own right, the recommended approach is an internal review followed by an external peer review. Generally, the more complex, novel and/or controversial the product, or the higher impact it is likely to have, the more the DM should consider implementing a peer review involving external experts and providing opportunities for public participation.”).

291. *See id.* at 56.

292. *Id.* at 36–37.

293. *See id.* at 48.

294. *Id.* (emphasis added).

295. *Id.* at 56.

With respect to influential scientific information, in addition to requiring the disclosure of each peer reviewer's name, identity, and organizational affiliations, OMB's Peer Review Bulletin calls for a

verbatim copy of each peer reviewer's comments or a copy of the summarized comments of the group of peer reviewers as a whole without attribution to specific peer reviewers. The summary must include any disparate and dissenting views. In addition, federal agencies must post the entire peer-review report contemporaneously on the agency's website along with all materials related to the peer review, including any charge statement to peer reviewers and any agency response(s) to the peer-review report.²⁹⁶

Clearly, the absence of any peer review report, any individual peer reviewer comments, or any Peer Review Plan²⁹⁷ concerning USEPA SAB's WOE Guidelines strongly suggests that EPA failed to adhere to these IQA-related standards. Similarly, the Guidelines' lead author's dissemination and placement of the WOE Guidelines on the Research.gate.net publication website for what appears to be an ad hoc attempt at "crowd-sourced" academic peer review or an informal solicitation for public comments does *not* satisfy OMB or EPA IQA standards.²⁹⁸

Peer reviewers of influential scientific information must be independent of the agency sponsoring the review.²⁹⁹ This means that USEPA is (and other federal agencies are) required to preclude all scientists who have participated in the development of influential scientific information from serving as peer reviewers of such a work product. It also obliges USEPA (and other federal agencies) to avoid

296. Kogan, *Revitalizing the Information Quality Act*, *supra* note 287, at 9.

297. See SCIENCE AND TECHNOLOGY POLICY COUNCIL PEER REVIEW HANDBOOK, *supra* note 283, at 94–95.

298. See GLENN W. SUTER, WEIGHT OF EVIDENCE FOR ECOLOGICAL ASSESSMENTS (2016) <https://www.researchgate.net/publication/315792218> [<https://perma.cc/DSR8-838N>]; see also SCIENCE AND TECHNOLOGY POLICY COUNCIL PEER REVIEW HANDBOOK, *supra* note 283, at 61. Another method which might be used to find peer reviewers is public solicitation. The Science Inventory can assist the public solicitation process by announcing the opportunity for public nominations and by providing background on the review topic the public may find useful for identifying potential reviewers they may wish to nominate. EPA's Science Advisory Board uses the Internet to solicit names for both ad hoc and standing advisory committees. These names, along with short biographical sketches, are also posted so that the public may not only nominate, but also comment on potential advisory committee members. See EPA Science Advisory Board, EPA (last updated Jan. 31, 2019) (making publicly available the Advisory Committee Meetings and Report Development: Process for Public Involvement).

299. See SCIENCE AND TECHNOLOGY POLICY COUNCIL PEER REVIEW HANDBOOK, *supra* note 283, at 70.

using the same peer reviewer in multiple influential scientific assessments.³⁰⁰ USEPA (and other federal agencies), furthermore, must ensure that peer reviewers serving as federal employees (including special government employees) comply with applicable federal ethics requirements and that such agencies employ National Academy of Sciences conflicts of interest policies for selecting non-federal government employees to serve on peer review committees.³⁰¹ Such policies must address conflicts of interest arising from investments, from agency, employer, and business affiliations, and from grants, contracts, and consulting income.³⁰² In effect, USEPA's Peer Review Handbook defines an "independent peer reviewer" as an expert who is "not . . . associated with the generation of the specific work product, either *directly* by substantial contribution to its development or *indirectly* by significant consultation during the development of the [specific] product."³⁰³ Peer reviewers also should be "impartial"—i.e., free from conflicts of interest.³⁰⁴

It cannot be determined without further inquiry whether the four external peer reviewers of USEPA SAB's WOE Guidelines had financial or institutional affiliation-based conflicts of interest.³⁰⁵ Nevertheless, it is clear that USEPA did not consider that three of the four peer reviewers had been directly (and indirectly via consultation) associated with the development of the WOE Guidelines they later peer reviewed.³⁰⁶ The failure of peer reviewers to "red flag" the several instances where author-contributors had made reference to their own prior published works identified as supporting sources within the WOE Guidelines strongly suggests that *other than* an independent peer review compliant with IQA peer review standards had taken place.³⁰⁷ Therefore, these Guidelines are *not* scientifically reliable within the meaning of Federal Rule of Evidence 702 and the United

300. See Final Information Quality Bulletin for Peer Review, 70 Fed. Reg. at 2675.

301. See *id.*

302. See *id.* at 2675.

303. SCIENCE AND TECHNOLOGY POLICY COUNCIL PEER REVIEW HANDBOOK, *supra* note 283, at 70 (emphasis added).

304. *Id.*

305. *Risk Assessment Forum*, *supra* note 228, at 9.

306. See *id.*

307. Since it is abundantly evident that the EPA SAB WOE Guidelines were rushed through and released in the closing weeks of the Obama administration, the SAB likely had little opportunity to ensure its peer review of those Guidelines complied with the IQA's rigorous federal information quality standards. See SCIENCE AND TECHNOLOGY POLICY COUNCIL PEER REVIEW HANDBOOK, *supra* note 283, at 70.

States Supreme Court's ruling in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*³⁰⁸ Thus, they should be redrafted and peer reviewed once again, this time consistent with the IQA's rigorous federal information quality standards.³⁰⁹

E. GLWQA Articles 1, 3, and 7 and Annex 10 Subject U.S. Implementation to the Science and/or Policy Advice of the International Joint Commission

1. *Articles 1 and 3*

Pursuant to GLWQA Articles 1(d) and 3(6), the United States agreed to take advice and recommendations from the International Joint Commission (IJC) previously established by the Canada–U.S. Boundary Waters Treaty of 1909.³¹⁰ The 1909 Boundary Waters Treaty covers water quantity and water quality issues in shared waterways and *related watersheds* along the entire Canada–U.S. border.³¹¹

2. *Article 7*

GLWQA Article 7(1) authorizes the IJC to analyze, disseminate, and independently verify data and information obtained from the Parties, State, and Provincial Governments, and *watershed management agencies* relating to Great Lakes water quality and pollution that enters boundary waters *from tributary waters and other sources*.³¹² GLWQA Article 1(i) defines “Tributary waters” as “surface waters that flow directly or indirectly into the Waters of the Great Lakes.”³¹³

GLWQA Article 7(1)(c)(i)–(ii) authorizes the IJC to tender advice and recommendations to the Parties concerning “the social, economic and environmental aspects of current and emerging issues related to the quality of the Waters of the Great Lakes,” including Lake Erie, and regarding “matters covered under the Annexes” to the

308. 509 U.S. 579, 596 (1993).

309. See, e.g., 114 Stat. at 2763A-153 to -154.

310. See Great Lakes Water Quality Agreement, *supra* note 190, at arts. 1(d), 3(6), 7(1); see also Treaty Between the United States and Great Britain Relating to Boundary Waters, and Questions Arising Between the United States and Canada, U.K.–U.S., Jan. 11, 1909, 36 Stat. 2448.

311. See Boundary Waters Treaty, *supra* note 310, at 1.

312. See Great Lakes Water Quality Agreement, *supra* note 190, at art. 7(1)(a).

313. *Id.* at art. 1(i).

GLWQA.³¹⁴ GLWQA Article 7(1)(e)(ii) authorizes the IJC to “assist[] in and advis[e] on scientific matters related to the Great Lakes Basin Ecosystem, including . . . tendering scientific advice and recommendations to the Parties and to State and Provincial Governments . . . [and] watershed management agencies.”³¹⁵

3. Article 8

Pursuant to GLWQA Article 8(1), “[t]he Parties . . . direct[ed] the [IJC] to establish a Great Lakes Water Quality Board, a Great Lakes Science Advisory Board and a Great Lakes Regional Office to assist in exercising the powers and responsibilities assigned to it under this Agreement.”³¹⁶ The Great Lakes Water Quality Board has since served as the principal advisor to the Canada–U.S. International Joint Commission under the Canada–U.S. Great Lakes Water Quality Agreement.³¹⁷ It *inter alia* ensures the implementation of the GLWQA by the Canadian and U.S. governments.³¹⁸ Current and former³¹⁹ USEPA representatives have long served an active ongoing senior role on the Great Lakes Water Quality Board.³²⁰

314. *Id.* at arts. 7(1)(c)(i)–(ii).

315. *Id.* at art. 7(1)(e)(ii) (emphasis added).

316. *Id.* at art. 8(1).

317. *See Great Lakes Water Quality Board*, IJC, <https://www.ijc.org/en/wqb> [<https://perma.cc/YK6J-TV3J>] (last visited Oct. 30, 2019).

318. *See id.*

319. One such former USEPA representative, David Ullrich, who has continuously served as Co-Chair of the Great Lakes Water Quality Board from February 2014 to the present, served previously as Deputy Regional USEPA Administrator and as Water Enforcement Attorney, Air Enforcement Chief, Deputy Regional Counsel, and Waste Management Director. *See* David Ullrich, LINKEDIN, <https://www.linkedin.com/in/david-ullrich-54337115>. [<https://perma.cc/P2FR-YYJM>] (last visited Oct. 30, 2019). Also, Chris Korleski currently serves as the Federal Member of the International Joint Commission Great Lakes Water Quality Board and Director of USEPA’s Great Lakes National Program Office based in Chicago, Illinois. *See Great Lakes Water Quality Board: Members*, IJC, <https://www.ijc.org/en/wqb/who/members> [<https://perma.cc/L775-USPC>] (last visited Oct. 30, 2019).

320. Indeed, between 2011 and 2016, both current and former USEPA representatives had served as Co-chair, member-participants, and/or observers of Great Lakes Water Quality Board biannual meetings. *See* GREAT LAKES WATER QUALITY BD., 179TH MEETING, SUMMARY OF DISCUSSION 1 (2011); GREAT LAKES WATER QUALITY BD., 180TH MEETING, SUMMARY OF DISCUSSION 1 (2012); GREAT LAKES WATER QUALITY BOARD – 181ST MEETING, SUMMARY OF DISCUSSION 1 (2012); GREAT LAKES WATER QUALITY BD., 182ND MEETING, SUMMARY OF DISCUSSION 1 (2013); GREAT LAKES WATER QUALITY BD., 183RD MEETING, SUMMARY OF DISCUSSION 1 (2014); GREAT LAKES WATER QUALITY BD., 184TH MEETING,

4. Annex 10

In addition, GLWQA “Annex 10 – Science” directly obligates the United States (and indirectly obligates the State of Michigan and the other seven Great Lakes States) to use adaptive (ecosystem-based) science management techniques to review available scientific information to inform management actions and policy development and to consider IJC/Great Lakes Science Advisory Board advice.³²¹ Canada and the United States also must establish and maintain comprehensive (precautionary) science-based ecosystem indicators to assess the state of the Great Lakes and to anticipate emerging threats, thereby reinforcing the role of the IJC in such decision-making.³²²

A review of the IJC’s prior work clearly shows how an earlier 1994 IJC report recommending application of the “weight-of-evidence” (WOE) approach of establishing scientific support for proposed regulatory actions had significantly influenced the drafting of the new 2012 GLWQA precautionary principle provisions discussed above.³²³ In that 1994 report, the IJC introduced the WOE approach as part of the IJC’s call for a precautionary set of environmental policies.³²⁴ The 1994 IJC report equated use of the WOE approach, which “is not a value-neutral exercise,” with the use of a precautionary approach “[w]hen the harm is large, the uncertainty is great, and our ability to predict the future is limited.”³²⁵

SUMMARY OF DISCUSSION 1 (2014); GREAT LAKES WATER QUALITY BD., 185TH MEETING, SUMMARY OF DISCUSSION 1 (2014); GREAT LAKES WATER QUALITY BD., 186TH MEETING, SUMMARY OF DISCUSSION 1 (2014); GREAT LAKES WATER QUALITY BD., 187TH MEETING, SUMMARY OF DISCUSSION 1 (2015); GREAT LAKES WATER QUALITY BD., 188TH MEETING, SUMMARY OF DISCUSSION 1 (2015); GREAT LAKES WATER QUALITY BD., 189TH MEETING, SUMMARY OF DISCUSSION 1 (2015); GREAT LAKES WATER QUALITY BD., 190TH MEETING, SUMMARY OF DISCUSSION 1 (2015); GREAT LAKES WATER QUALITY BD., 191ST MEETING, SUMMARY OF DISCUSSION 1 (2016); GREAT LAKES WATER QUALITY BD., 192ND MEETING, SUMMARY OF DISCUSSION 1 (2016).

321. See *Great Lakes Water Quality Agreement*, *supra* note 200, at Annex 10(B)(1), (C)(1)–(2).

322. See *id.* at Annex 10(D).

323. Compare Jack Weinberg & Joe Thorton, *Scientific Inference and the Precautionary Principle*, in *APPLYING WEIGHT OF EVIDENCE: ISSUES AND PRACTICE, A REPORT ON A WORKSHOP HELD OCTOBER 24, 1993*, at 20 (Michael Gilbertson & Sally Cole-Misch eds., 1994), with *Great Lakes Water Quality Agreement*, *supra* note 200, at Annex 10(B)–(D).

324. See Weinberg & Thorton, *supra* note 323, at 20.

325. *Id.* at 21, 23.

Significantly, the 1994 IJC report acknowledged that the precautionary principle “must be built into the rules of inference,” even though it “derives neither from scientific principles nor from some thoughtful consideration of public ethics and morality.”³²⁶ The 1994 IJC report reassured precautionary principle advocates that although “[s]ome argue[d] that the IJC’s ‘weight of evidence approach’ is weaker than the ‘precautionary principle’[, said] interpretation [was] false, however, and in sharp conflict with the IJC’s usage.”³²⁷ In addition, the 1994 IJC report emphasized how, “[u]nlike the current scientific and policy framework, this [precautionary inference] approach reverses the burden of proof, framing the question with the null hypothesis: ‘What evidence must we IGNORE to conclude that a causal relationship does not exist.’”³²⁸ According to the 1994 IJC report, “[p]recautionary inference requires a holistic consideration of an integrated body of direct and circumstantial evidence. The focus *shifts from whether or not causal relationships have been definitively proven to considering whether a body of direct and/or circumstantial evidence suggest a plausible hypothesis that harm has occurred.*”³²⁹

F. GLWQA Article 7(5) and Annex 2 Lakewide Action and Management Plans

1. Article 7(5) and Annex 2.A

GLWQA Article 7(5) states that “[i]n addition to the responsibilities outlined in this article, the [IJC] has specific roles and responsibilities pursuant to . . . Annex 2 – Lakewide Management.”³³⁰ GLWQA Annex 2.A states that its purpose is “to contribute to the achievement of the General and Specific Objectives of [the GLWQA] by assessing the status of each Great Lake, and by addressing environmental stressors that adversely affect the Waters of the Great Lakes . . . on a lakewide scale through an ecosystem approach.”³³¹

326. *Id.* at 23.

327. *Id.* at 24.

328. *Id.* at 25.

329. *Id.* at 26 (emphasis added).

330. Great Lakes Water Quality Agreement, *supra* note 190, at art. 7(5).

331. *See id.*

2. Annex 2.B

Pursuant to Annex 2.B, the Parties shall, in consultation with State, Provincial, local, and tribal governments, undertake various lakewide management actions.³³² These include *inter alia* the scientific evaluations of the state of the waters of each Great Lake, the reporting of such evaluations' findings, and the development and implementation of specific binational strategies to address Annex 4 nutrient threats to water quality.³³³ In addition, such actions also should include scientific evaluations of the nearshore waters of each of the Great Lakes and the development of an integrated nearshore framework.³³⁴ Two key actions called for by such a framework include the identification of high ecological value nearshore areas³³⁵ and the determination of chemical, physical, or biological integrity of which are subject to high stress individual or cumulative impacts. Another key action includes the establishment of priorities for nearshore and whole lake prevention, restoration, and protection.³³⁶ Furthermore, the lakewide management actions shall "include consideration of non-point source runoff, shoreline hardening, climate change impacts, habitat loss, invasive species, dredging and contaminated sediment issues, bacterial contamination, contaminated groundwater, and other factors where they are identified as a source of stress to the nearshore environment."³³⁷ In sum, GLWQA Annex 2.B effectively requires Canada and the United States to actively employ Europe's precautionary principle to improve each Great Lake's water quality by addressing in advance the environmental stressors potentially revealing the symptoms of land-based point and nonpoint sources of pollution.³³⁸

332. See *id.* at Annex 2(A).

333. See *id.* at Annex 2(B)(1)–(6).

334. See *id.* at Annex 2(B)(7)(a)–(f).

335. See *id.* at Annex 2(B)(7)(c)–(d).

336. See *id.* at Annex 2(B)(7)(f).

337. *Id.* at Annex 2(B)(7)(g).

338. See *id.* at Annex 2(B)(1)–(7).

3. *Annex 2.C—Lakewide Action and Management Plans (LAMPs)—Lake Huron*³³⁹

Annex 2.C requires the Parties to “document and coordinate these management actions through the development of Lakewide Action and Management Plans (LAMP) for each Great Lake,” which shall be issued every five years with annual updates in between.³⁴⁰ Once a five-year LAMP has been issued, “the Parties shall provide a copy to the [IJC] for advice and recommendations.”³⁴¹

The five-year LAMP for Lake Huron, which the Michigan Department of Environmental Quality (MDEQ) co-authored, for example, was released in 2018.³⁴² It covers most of the east coast of Michigan for the period spanning 2017 through 2021.³⁴³ This LAMP relays that Lake Huron overall is in “fair” condition with significant declines in chemical pollutants since the 1970s, but fish and wildlife

339. This Article’s primary focus is on the federal and international law obligations the State of Michigan has assumed as the result of its participation in the GWLQA and other Great Lakes-related initiatives and how they have impacted state landowners, including hydroelectric dam owner-operators. Therefore, although Michigan’s coastline touches four of the five Great Lakes (Michigan, Erie, Superior and Huron), the following discussion will be limited to the LAMPs developed for Lakes Huron. *See Lake Michigan LAMPs and Associated Reports*, EPA (June 3, 2019), <https://www.epa.gov/greatlakes/lake-michigan-lamps-and-associated-reports#lamps> [<https://perma.cc/9LAR-Y8Q7>] (hosting annual reports spanning the years 2013–2017); *see also* EPA, LAKE SUPERIOR LAKEWIDE ACTION AND MANAGEMENT PLAN 2018–2019 (2016) (consisting of the most recent five-year LAMP for Lake Superior, which was released in 2016 and covers the period spanning 2015–2019); *Lake Erie LAMP and Associated Reports*, EPA (Sept. 11, 2019), <https://www.epa.gov/greatlakes/lake-erie-lamps-and-associated-reports#annual-repts> [<https://perma.cc/52Q6-J4AM>] (hosting reports spanning the years 2012–2017); *Lake Superior LAMPs and Associated Reports*, EPA (June 3, 2019), <https://www.epa.gov/greatlakes/lake-superior-lamps-and-associated-reports#annual-reports> [<https://perma.cc/7QHG-XEHT>] (hosting seven individual Lake Superior LAMPs available for public review); *Lake Erie LAMPs*, EPA (Nov. 28, 2018), <https://www.epa.gov/greatlakes/lake-erie-lamps#basics> [<https://perma.cc/EPC8-G6KC>] (hosting reports for the years spanning 1999–2010); *Lake Michigan LAMPs*, EPA (Dec. 16, 2015), <https://www.epa.gov/greatlakes/lake-michigan-lamps> [<https://perma.cc/6F95-VRBK>] (hosting Lake Michigan LAMP Bi-Annual Reports spanning the years 2000–2008). The following discussion will be limited to the LAMPs developed for Lake Huron.

340. *Great Lakes Water Quality Agreement*, *supra* note 200, at Annex 2(C).

341. *Id.*

342. *See* ENV’T AND CLIMATE CHANGE CAN. AND THE U.S. EPA, Lake Huron Lakewide Action and Management Plan 2017–2021, at ii (2018).

343. *Id.*

consumption advisories remain.³⁴⁴ “The majority of nearshore waters are of high quality, but areas of the southeast shore, Saginaw Bay, and eastern Georgian Bay experience episodic algal blooms.”³⁴⁵ Chemical contaminants and nutrients and bacterial pollution have been identified as the first two of five priority threats for Lake Huron. In addition, lakewide priorities for 2017 included “[i]mproved understanding of nutrients (sources, sinks, pathways and loadings) and nutrient-related issues (nuisance and harmful algal blooms),”³⁴⁶ especially in and around Saginaw Bay, which contains “abundant coastal wetlands that support a world class fishery” and “is designated a globally Important Bird Area for migratory waterfowl and shorebirds.”³⁴⁷

Section 3 of the Lake Huron LAMP focuses on the interconnectedness of the Lake Huron watershed, which “is the largest watershed of all the Great Lakes. The water quality of Lake Huron depends on the health of its watershed.”³⁴⁸ It states that “[i]nland lakes and wetlands act as reservoirs that help to moderate the quantity of water moving through the watershed and remove excess nutrients and sediments otherwise released by severe storms.”³⁴⁹ “[W]etlands filter and absorb nutrients like phosphorous and nitrogen that can potentially stimulate algal blooms.”³⁵⁰ Agricultural lands contribute to the nutrients found in inland lakes and wetlands and, if responsibly farmed with “use of buffer strips, cover crops, grassed waterways, and two-stage ditches[, can] help to minimize soil erosion and flooding.”³⁵¹ However, this comes at a price that farmers and ultimately consumers must bear. The report also notes that “[i]n U.S. waters, over 10,000 km (6213.7 miles) of stream habitat were at one time accessible to Lake Huron fish.”³⁵² However, “[d]ams and barriers fragment and degrade river habitat and prevent fish migration.”³⁵³

Regional threats to Lake Huron’s main basin include watershed nutrient and sediment inputs from agriculture and overland runoff and erosion.³⁵⁴ Regional threats to Michigan’s western shores of Lake

344. *Id.* at viii.

345. *Id.*

346. *Id.* at ix.

347. *Id.* at 6.

348. *Id.* at 7.

349. *Id.* at 9.

350. *Id.*

351. *Id.* at 8.

352. *Id.* at 9.

353. *Id.*

354. *Id.* at 42, fig. 24.

Huron include nonpoint source pollution (NPS), loss and degradation of stream habitat, and loss of connectivity due to dams and barriers.³⁵⁵ Regional threats to Saginaw Bay include Tittabawassee River and Saginaw River floodplain sediment contamination due to Dow Chemical Company-emitted dioxin and furans, land runoff and soil erosion, and loss of fish and wildlife habitat due to agricultural nutrient inputs and dams and barriers.³⁵⁶

Indeed, the Lake Huron LAMP takes the position that hydropower dams “threaten the diversity of native fishes by restricting or eliminating connectivity between lake and critical spawning, nursery, and overwintering habitat” and that dams and their reservoirs/impoundments “interrupt the natural flow of water, nutrients, and sediment to Lake Huron, alter temperature regimes (e.g., thermal heating), and increase the transformation and exposure of toxic pollutants (e.g. mercury).”³⁵⁷ Among the lakewide actions the 2017 Lake Huron LAMP recommended were “[f]ederal, regional, and multi-jurisdictional initiatives that examine opportunities for dam decommissioning and removal.”³⁵⁸ These include the University of Wisconsin’s GIS platform known as “Fishwerks,” which identifies barriers to restoration of native fisheries, and the Great Lake Restoration Initiative (GLRI),³⁵⁹ which funds dam removal.³⁶⁰ In fact, the Lake Huron LAMP includes dam removal among its lakewide actions for the five-year period spanning 2017 to 2021, to be achieved by the MDEQ and the Michigan Department of Natural Resources (MDNR), working together with *inter alia* the U.S. National Oceanic and Atmospheric Administration (NOAA), the U.S. Army Corps of Engineers (USACE), the U.S. Department of Agriculture Natural Resources Conservation Service (USDA-NRCS), the U.S. Department of Agriculture Forest Service (USFS), and the U.S. Fish and Wildlife Service (USFWS).³⁶¹

355. *See id.*

356. *See id.*

357. *Id.* at 54.

358. *Id.* at 54.

359. *See id.* at 54–55.

360. *See* U.S. FISH AND WILDLIFE SERV., RESTORING THE GREAT LAKES 7 (2012).

361. *See* Exec. Order No. 13,340; *see also* ENV’T AND CLIMATE CHANGE CAN. AND THE U.S. EPA, *supra* note 342, at xii (“Stream Connectivity: Restore stream connectivity and function *through dam removal*, the construction of fish passage alternatives (e.g., ladders), and stream culvert improvements to compensate for loss of riverine habitat.”) (emphasis added).

In addition, Lake Huron-related GLRI funding will be used to remove the Maple River Dam, a northern Michigan dam previously operated for approximately forty years to generate hydroelectric power,³⁶² which “holds back nearly 43 acres of water in Lake Kathleen.”³⁶³ The Maple River is a major river in the Cheboygan river drainage basin, which includes over 900,000 acres and numerous rivers and lakes, and the Cheboygan River empties into Lake Huron.³⁶⁴ The MDNR reported in 2015 that removal of the Maple River Dam, along with the Cheboygan Dam on the main stem of the Cheboygan River, the “Alverno, Kleber and Tower Dams on the Black River, and the Golden Lotus Dam on the Pigeon River would open up a significant amount of spawning and nursery habitat to migratory fish species, and has the potential to increase production of Chinook salmon and steelhead smolts.”³⁶⁵

However, dam removal seems to be part of the broader GLRI agenda to restore natural fisheries habitat across the Great Lakes region.³⁶⁶ In 2012, for example, the USFWS and the Federal Aid in Wildlife Restoration Act partially funded the removal of the Brown Bridge Hydroelectric Dam, located in Traverse City, Michigan. The USFWS had billed the Brown Bridge dam removal project as “an important first step in what could be a larger effort to remove or modify three additional dams downstream in the Boardman River to improve the ecosystem and fish habitat.”³⁶⁷ Apparently, Congress had appropriated the monies USFWS utilized in that project through the GLRI and USEPA.³⁶⁸ In 2018, the GLRI funded the removal of the

362. See U.S. FISH AND WILDLIFE SERV., ENVIRONMENTAL ASSESSMENT FOR MAPLE RIVER DAM REMOVAL AND ROAD CROSSING IMPROVEMENTS – MAPLE RIVER, PELLSTON, MI 2 (2018).

363. Ben Thorp, *Trump Removal Budget Hurts Dam Removal Near Lake Huron*, GREAT LAKES ECHO (June 15, 2017); see also Ben Thorp, *Dam Removal on Lake Huron Tributary at Risk*, WCMU PUBLIC RADIO (June 15, 2017), <https://radio.wcmu.org/post/dam-removal-lake-huron-tributary-risk#stream/0> [<https://perma.cc/ML9Y-V2XU>].

364. *Maple River*, TIP OF THE MITT WATERSHED COUNCIL, <https://www.watershedcouncil.org/maple-river.html>; [<https://perma.cc/DBV4-SRR3>] (last visited Oct. 30, 2019); see also *Cheboygan River Watershed*, TIP OF THE MITT WATERSHED COUNCIL, <https://www.watershedcouncil.org/cheboygan-river-watershed.html> [<https://perma.cc/YE2L-GL7C>] (last visited Oct. 30, 2019).

365. MICH. DEP’T OF NAT. RES. FISHERIES DIV., FISHERIES REPORT 10 – CHEBOYGAN RIVER ASSESSMENT 32 (2015).

366. See RESTORING THE GREAT LAKES, *supra* note 360, at 7.

367. See *id.* at 7. See generally U.S. FISH AND WILDLIFE SERV., FINAL BROWN BRIDGE DAM REMOVAL ENVIRONMENTAL ASSESSMENT (2012).

368. See RESTORING THE GREAT LAKES, *supra* note 360, at 7.

Sabin Hydroelectric Dam on the Ottaway-Boardman River in Grand Traverse, Michigan (northwestern Michigan), and the removal is scheduled to be completed in 2019.³⁶⁹ GLRI funding,³⁷⁰ in part, pursuant to the Great Lakes Legacy Act,³⁷¹ will be used to underwrite the removal of the Gorge Dam, which previously generated hydroelectric power on the Cuyahoga River in Ohio.³⁷²

G. GLWQA Annex 4's Focus on Nutrient Loads Nonpoint Source Runoff Pollutants

Moreover, GLWQA Annex 4 – Nutrients, Sections B.1, B.2, and B.3 identify three of the Lake Ecosystem Objectives, namely (1) to minimize the extent of hypoxic zones associated with excessive phosphorus; (2) to maintain the levels of algal biomass below the level constituting a nuisance condition; and (3) to maintain cyanobacteria biomass at levels that do not produce concentrations of toxins that pose a threat to human or ecosystem health in Great Lakes Waters.³⁷³

To achieve this objective, Canada and the United States each must require and achieve reductions in phosphorous concentrations.³⁷⁴

369. See *GLRI-Funded Removal of Sabin Dam Underway in Grand Traverse County, Mich.*, GREAT LAKES RESTORATION (Dec. 11, 2018), <https://www.glri.us/node/163> [<https://perma.cc/S5SE-C935>]; see also *Wrapping Up 2018 with the Return of a River*, CONSERVATION RES. ALL. (Feb. 25, 2019), <https://www.rivercare.org/news/wrapping-up-2018-with-the-return-of-a-river> [<https://perma.cc/TTH8-7YLK>].

370. See generally Jennifer Conn, *Officials Launch Sediment Study for Gorge Dam Removal*, CLEVELAND.COM (Sept. 13, 2008), https://www.cleveland.com/akron/index.ssf/2018/09/officials_launch_sediment_stud.html [<https://perma.cc/W4YG-99VM>]; Jennifer Conn, *Gorge Dam Removal Pushing Ahead, Despite Threats to Great Lakes Restoration Funds*, CLEVELAND.COM (Mar. 19, 2017), https://www.cleveland.com/akron/index.ssf/2017/03/officials_still_looking_to_tak.html [<https://perma.cc/QZ3M-8LPL>].

371. See generally *Ohio EPA: Gorge Dam Project Agreement Signed*, DREDGING TODAY.COM (June 29, 2018) (discussing how a cooperative agreement had been signed by the Ohio EPA and the USEPA Great Lakes National Program to create a plan for contaminated sediment management funded by the Great Lakes Legacy Act incident to the dam's removal).

372. See Bob Downing, *Gorge Dam Holds Back More than Water; Sediment Removal is a Big Task*, AKRON BEACON J. (Apr. 24, 2013), <https://www.ohio.com/akron/news/gorge-dam-holds-back-more-than-water-sediment-removal-is-a-big-task> [<https://perma.cc/9L7W-BWWD>].

373. *Great Lakes Water Quality Agreement*, *supra* note 200, at Annex 4.

374. *Id.* at Annex 4 § C. For example, Annex 4 – Nutrients, Section C identifies an interim objective for total phosphorous concentration of 10 ug/l for Lake Erie's eastern and central basins, a total phosphorous concentration target of 15 ug/l for Lake Erie's western basin, and a phosphorous total loading target of 11,000 metric tons per year for all of Lake Erie. *Id.* Annex 4, Section C also imposes interim

Annex 4 – Nutrients, Section C.2(a)–(b) provides that with respect to the nearshore waters of the Great Lakes, the Parties shall “develop Substance Objectives for phosphorous concentrations for nearshore waters, including embayments and tributary discharge” for Lake Erie, and also “shall establish load reduction targets for priority watersheds that have a significant localized impact on the Waters of the Great Lakes” (i.e., Lake Erie).³⁷⁵

GLWQA Annex 4 – Nutrients, Section D.3 provides that “the Parties shall assess and, where necessary, develop and implement regulatory and non-regulatory programs to reduce phosphorous loading from agricultural and rural non-farm point and non-point sources.”³⁷⁶ Annex 4 also requires the Parties to develop and implement programs to assess the current effectiveness of best management practices (BMPs) to manage phosphorous use.³⁷⁷ Such programs shall “support the ongoing development and implementation of new approaches and technologies for the reduction of phosphorous from agricultural and rural non-farm sources.”³⁷⁸

Annex 4 – Nutrients, Section D.6 requires the Parties to develop for Lake Erie within five years of entry into force of the GLWQA 2012 revisions “phosphorous reduction strategies and domestic action plans to meet Substance Objectives for phosphorous concentrations, loading targets, and loading allocations apportioned by country, developed pursuant to this Annex.”³⁷⁹ Annex 4 – Nutrients, Section D.7 requires the Parties to “identify watersheds that are a priority for nutrient control” and to “develop and implement management plans, including phosphorous load reduction targets and controls for these watersheds, as appropriate.”³⁸⁰ In sum, Sections C and D of GLWQA Annex 4 are currently concerned with reducing phosphorous concentrations emanating from nonpoint sources within the upper and lower watersheds and along the shores of each of the Great Lakes States and lakeside Canadian provinces believed to be resulting in the drainage of such nutrient loads into the Great Lakes.³⁸¹

objectives for a total phosphorous concentration of Lake Huron of 5 ug/l and phosphorous total loading targets for Main Lake Huron and Saginaw Bay, respectively, of 2,800 and 440 metric tons per year. *Id.*

375. *Id.* at Annex 4 § B.1–B.3, C.2(a)–(b).

376. *Id.* at Annex 4 § D.3.

377. *See id.* at Annex 4 § D.3(a).

378. *Id.* at Annex 4 § D.3(b).

379. *Id.* at Annex 4 § D.6–7.

380. *Id.* at Annex 4 § D.7.

381. *See id.*

During August 2016, the Great Lakes Water Quality Board's Legacy Issues Work Group, which the IJC formed during 2015, submitted to the IJC its report identifying priority actions for nutrient management in the Lake Erie basin.³⁸² This summary report contained recommendations for IJC consideration regarding "how watershed management plans should be used to manage nutrient pollution in Lake Erie."³⁸³ Its authors reasoned that "Lake Erie is lacking a consistent framework for developing and implementing a lake-wide nutrient management plan that incorporates the eastern, central, and western sub-basins, as well as, watershed and sub-watershed plans that consider downstream water quality impacts."³⁸⁴ IJC's recommended solution was for the Canadian and U.S. federal governments to work with provincial and state governments to "ensure that lake-wide basin, sub-basin, watershed and sub-watershed management plans . . . are developed for nutrient management in Lake Erie."³⁸⁵

This report relates how, in June 2015, "the governors of Ohio and Michigan and the premier of Ontario signed an agreement to reduce phosphorus inputs [from those areas] to the western waters of Lake Erie by 40 percent over the next ten years."³⁸⁶ It also shows how, in February 2016, "the Governments of Canada and the United States announced the adoption of a binational target to reduce total phosphorus entering Lake Erie by 40 percent" and how "[t]o meet this target[,] . . . Canada and the United States . . . committed to developing domestic action plans by February 2018, via Annex 4 (Nutrients) of the GLWQA."³⁸⁷ As the Work Group's report also reveals, "[n]utrient loading from the western and central Lake Erie sub-basins is a significant issue for the whole of Lake Erie. As harmful algae blooms continue in the western and central sub-basins, concerns about impacts of excess nutrients on the eastern Lake Erie sub-basin are also mounting."³⁸⁸

382. GREAT LAKES WATER QUALITY BOARD LEGACY ISSUES WORK GROUP, EVALUATING WATERSHED MANAGEMENT PLANS NUTRIENT MANAGEMENT APPROACHES IN THE LAKE ERIE BASIN AND KEY LOCATIONS OUTSIDE OF THE LAKE ERIE BASIN 1 (2016).

383. *Id.*

384. *Id.*

385. *Id.*

386. *Id.* at 4.

387. *Id.*

388. *Id.* at 8.

As would be expected, the March 2016 full version of the report was much more detailed and identified Lake Erie's eutrophication issues as a historic problem attributable to the

early and intense development of its lands for agricultural and urban uses. . . . Nearly 70 percent of the Lake Erie watershed is devoted to agricultural land uses, growing crops, and meat and dairy producing animals Agriculture typically represents *the* major land use in most of the watershed plans reviewed and is a significant source of nutrients to the Lake Erie watershed through soil erosion, runoff and/or tile drainage from synthetic fertilizer and manure applications and other crop production and livestock operations.³⁸⁹

This report, furthermore, indicated that the states of Michigan and Ohio and the Canadian province of Ontario had "agreed to reduce phosphorous by 40 percent in the Lake Erie basin."³⁹⁰ This strongly suggests that it is at these locations where most of the agricultural activity adversely impacting Lake Erie occurs.³⁹¹

Since, as the report's authors concluded, "[a]griculture is a major source of nutrients into surface waters,"³⁹² the report provided the following "tried and tested" strategies tailored toward agricultural entities. First, it recommended the imposition of regular USDA soil testing requirements every three years to ensure that nutrients are applied sparingly at the proper rate during periods of little or no rainfall.³⁹³ Second, the report recommended the following "strategies for limiting the transport of nutrients via surface runoff, erosion, and agricultural tile drainage [that] are customary in the [Lake Erie basin and sub-basin watershed and nutrient management] plans reviewed."³⁹⁴ It specifically identified the need for "[c]onservation tillage and no-till farming practices . . . designed to reduce erosion and runoff from farm fields."³⁹⁵ It also extolled the use of cover crops that

389. HULL & ASSOCS., INC. & BLUEMETRIC ENVTL., INC., EVALUATING WATERSHED MANAGEMENT PLANS – NUTRIENT MANAGEMENT APPROACHES IN THE LAKE ERIE BASIN AND KEY LOCATIONS OUTSIDE OF THE LAKE ERIE WATERSHED 1, 10 (March 2016) (emphasis added).

390. *Id.* at 2.

391. See ENV'T AND CLIMATE CHANGE CAN. AND THE U.S. EPA, STATE OF THE GREAT LAKES 2017 TECHNICAL REPORT 414, 418, 435 fig. 4 (2017) (illustrating graphically the watershed and sub-watershed areas of Ohio, southeastern Michigan, and the Canadian province of Ontario as the major agricultural areas surrounding Lake Erie).

392. See HULL & ASSOCS., INC. & BLUEMETRIC ENVTL., INC., *supra* note 389, § 3.2.2.

393. § 3.2.1.

394. § 3.2.2.

395. *Id.*

“impede the flow of water to minimize erosion,” the use of “[w]etlands—natural or constructed—[to] trap eroded nutrients and concentrate them into biomass,” and the use of “[t]ile drainage control structures [which] can also be useful tools for maximizing nutrient uptake.”³⁹⁶ Third, it recommended nutrient “[m]onitoring plans that incorporate regular sampling, and sampling at appropriate times (i.e., after heavy rainfalls), [to] increase the likelihood of successful nutrient management For more accurate measures of dissolved nutrients, water samples must be sent to certified analytical laboratories.”³⁹⁷ According to the report’s authors, these recommendations, along with those made with respect to other than agricultural lands, were intended to be “used to achieve nutrient load reduction targets [that] restore and protect Lake Erie.”³⁹⁸ There is *no* doubt that *USEPA representatives* had served an active senior role in the Great Lakes Water Quality Board during the development of this report.³⁹⁹

On June 6, 2017, USEPA’s Science Advisory Board (SAB) dispatched a report and cover letter to the new USEPA administrator informing him of “SAB’s consensus advice and recommendations on the development of nutrient load reduction targets for Lake Erie.”⁴⁰⁰ Apparently, USEPA had charged the SAB with reviewing and evaluating USEPA’s modeling approach for developing nutrient load reduction targets for Lake Erie and the models’ results. The USEPA SAB website reaffirmed the relationship of the SAB report to USEPA Region 5’s/USG’s responsibilities under GLWQA.

The USEPA SAB concluded that the “models used for the simulations are limited by the data available for calibration and validation, and this affects the ability to rigorously evaluate model quality.”⁴⁰¹ The SAB also concluded that the “Modeling Subgroup applied and evaluated the suite of models independently, rather than as part of an ensemble approach” and had accepted some models for

396. *Id.*

397. § 3.4.

398. *Id.* at iii.

399. *See infra* Part VI and accompanying footnotes; *see also* GREAT LAKES WATER QUALITY BD., WATERSHED MANAGEMENT OF NUTRIENTS IN LAKE ERIE 17 (2017).

400. *See* Cover Letter of *SAB Review of Lake Erie Nutrient Load Reduction Models and Targets* from Dr. Peter S. Thorne, Chair, Sci. Advisory Bd., and Dr. William S. Schlesinger, Chair, SAB Lake Erie Phosphorus Objectives, to Hon. E. Scott Pruitt, Adm’r, EPA (June 6, 2017).

401. EPA, EPA-SAB-17-06, *SAB REVIEW OF LAKE ERIE NUTRIENT LOAD REDUCTION MODELS AND TARGETS* 10 (2017); *see also* Cover Letter of *SAB Review of Lake Erie Nutrient Load Reduction Models and Targets*, *supra* note 400.

use “despite deficiencies.”⁴⁰² Nevertheless, the “SAB [found] that the 40% reduction in total phosphorous load to the Western and Central Basins of Lake Erie recommended by the Task Team will improve Lake Erie water quality and reduce harmful algal blooms.”⁴⁰³ In addition, the SAB indicated that

[w]hile phosphorous has always been considered the limiting nutrient for Lake Erie and most other lakes, there is increasing evidence of the possible need for nitrogen control as well There is increasing support for adopting a multiple nutrient strategy to reduce eutrophication, in both fresh and salt waters. For Lake Erie, this means that, after the initial consideration of P control, N and P control should be considered⁴⁰⁴

The SAB report spoke in universal terms without identifying any specific contribution of point or nonpoint source pollution. It also recommended that USEPA “should seek opportunities to work with . . . [USDA] to increase local farmers’ use of agricultural technologies aimed at more efficient use of fertilizers and reducing nutrient loadings to Lake Erie.”⁴⁰⁵

During the third quarter of 2017, USEPA and Environment and Climate Change Canada released their own joint report entitled “The State of the Great Lakes 2017.”⁴⁰⁶ The report, in part, emphasized the need for more forest cover alongside agricultural lands to prevent nutrient runoff from entering the Great Lakes.⁴⁰⁷ The report went on to indicate the “poor” condition of Lake Erie, particularly its western basin, and identified that the fewest forests and the greatest amount of agricultural lands are located in Ohio, Indiana, Michigan, and the Canadian Province of Ontario.⁴⁰⁸ This report also focused mostly on pollution caused by toxic chemicals and persistent organic pollutants discharged into Lake Erie tributaries from commercial and industrial sources.⁴⁰⁹

402. Cover Letter of *SAB Review of Lake Erie Nutrient Load Reduction Models and Targets*, *supra* note 400; *see also* SAB REVIEW OF LAKE ERIE NUTRIENT LOAD REDUCTION MODELS AND TARGETS, *supra* note 401, at 1.

403. Cover Letter of *SAB Review of Lake Erie Nutrient Load Reduction Models and Targets*, *supra* note 400.

404. *Id.*; *see also* SAB REVIEW OF LAKE ERIE NUTRIENT LOAD REDUCTION MODELS AND TARGETS, *supra* note 401, at 4.

405. *Id.* at 11.

406. STATE OF THE GREAT LAKES 2017 TECHNICAL REPORT, *supra* note 391.

407. *See id.* at 414, 418.

408. *Id.* at 146, 435 fig. 4.

409. *See id.*

During November 2017, the IJC released its First Triennial Assessment of Progress on Great Lakes Water Quality.⁴¹⁰ Objective 5 of the report entitled “Wetlands and Other Habitats” (i.e., “water that supports healthy and productive wetlands and other habitats to sustain native species populations”) emphasized wetlands’ important role in providing “vital ecological habitat” and improving “water quality by slowing the runoff of nutrients and filtering pollutants.”⁴¹¹ The report suggested following the lead of northwestern Ohio which “is creating small-scale wetlands adjacent to agricultural land as a way to slow the transport of nutrients into receiving waters and thus improve water quality.”⁴¹² It also suggested that “governments . . . commit to adopting minimal thresholds to protect natural habitats on a watershed basis. This might include a goal to restore and protect 40 percent of historic wetlands of a watershed, or committing to buffer strips with natural vegetation along both sides of streams within a watershed.”⁴¹³ The report focused mostly on pollution caused by toxic chemicals and persistent organic pollutants discharged into Lake Erie tributaries from commercial and industrial sources.⁴¹⁴

During December 2017, the IJC Great Lakes Water Quality Board issued a report, the development of which had been led by the Board’s Legacy Issues Work Group, setting forth five recommendations for watershed management of nutrients entering Lake Erie.⁴¹⁵ These recommendations engendered (1) ongoing federal, state, and provincial watershed monitoring activities to determine nutrient loading and identify necessary significant reductions thereof;⁴¹⁶ (2) development of Lake Erie basin-by-basin plans focusing

410. See INT’L JOINT COMM’N, FIRST TRIENNIAL ASSESSMENT OF PROGRESS ON GREAT LAKES WATER QUALITY – FINAL REPORT (Nov. 28, 2017).

411. *Id.*

412. *Id.*

413. *Id.*

414. See *id.*

415. See GREAT LAKES WATER QUALITY BD., WATERSHED MANAGEMENT OF NUTRIENTS IN LAKE ERIE, *supra* note 399, at 5–8. This report contained an “Appendix A” entitled, *Great Lakes Water Quality Board Legacy Issues Work Group, Watershed Management of Nutrients in Lake Erie – Workshop Summary Report* (Final Report Apr. 2017). Appendix A included the minutes/agenda of a February 1–2, 2017, binational watershed management planning and implementation workshop intended “to build support for the recommendations in the [Water Quality Board’s] August 2016 report” discussed above. See Appendix A Summary at i. Among the issues discussed were the nine elements to be included in watershed management plans requesting USEPA funding under CWA Section 319 to address water quality impairments. See *id.* at Appendix A, 4–5.

416. See *id.* at Appendix A, 6.

on the sub-watershed level that identify binational upstream nutrient load reduction targets, achievement of which would be facilitated by a watershed planning bureaucracy;⁴¹⁷ (3) at least one-half federal, state, and provincial government funding;⁴¹⁸ (4) establishment of parameters by which to monitor and measure watersheds for total phosphorus, nitrogen, dissolved reactive phosphorus, and dissolved oxygen, also considering atmospheric loading of phosphorous and climate change basin impacts;⁴¹⁹ and (5) public communication of intergovernmental nutrient load management/reduction efforts.⁴²⁰

During February 2018, the IJC released another report that assessed fertilizer application and impacts in the western Lake Erie Basin.⁴²¹ This report identified “[n]on point agricultural release” as “the largest single source of excess nutrients to western Lake Erie. Because phosphorous . . . is the limiting nutrient for algal growth in most freshwater systems, the sources, transformations and effects of excess [phosphorous] were the focus of much of the assessment, although nitrogen . . . [was] also briefly discussed.”⁴²²

In addition, during March 2018, USEPA released the U.S. Action Plan for Lake Erie, which indicated that GLWQA Annex 4 – Nutrients had already been updated following the February 2016 formal adoption by Canada and the United States of new phosphorus loading/reduction targets for the western and central basins of Lake Erie.⁴²³ The report indicated that “[w]hile the bulk of the phosphorus reductions will come from sources in Ohio, Michigan, and Indiana, all five of the U.S. states in the basin are committed to taking action to reduce nutrient loadings and minimize problems of excessive algal growth in Lake Erie.”⁴²⁴

Significantly, the cover of the *USEPA Action Plan* states that “[t]his document outlines federal and state efforts to achieve the

417. *See id.* at 7.

418. *See id.*

419. *See id.* at 7–8.

420. *See id.* at 8.

421. *See generally* INT’L JOINT COMM’N, FERTILIZER APPLICATION PATTERNS AND TRENDS AND THEIR IMPLICATIONS FOR WATER QUALITY IN THE WESTERN LAKE ERIE BASIN (2018).

422. *Id.*

423. *See* EPA, EPA U.S. ACTION PLAN FOR LAKE ERIE – COMMITMENTS AND STRATEGY FOR PHOSPHORUS REDUCTION 2018–2023 (2018).

424. *Id.* at ii; *see also* EPA Announces Action Plan to Combat Harmful Algal Blooms in Lake Erie, EPA (Mar. 7, 2018), <https://www.epa.gov/newsreleases/epa-announces-action-plan-combat-harmful-algal-blooms-lake-erie> [<https://perma.cc/3R8E-K3L2>].

binational phosphorus load reduction targets adopted in 2016 *under the Great Lakes Water Quality Agreement*.⁴²⁵ The report generally concludes that “loss of wetlands and riparian vegetation,” in part, contribute to the resurgence of algae in Lake Erie.⁴²⁶ The USEPA Action Plan noted that while generally “[f]ederal, state and local authorities have numerous regulatory and nonregulatory programs and authorities available to help meet the reduction goals laid out in this plan, . . . new regulations or stronger enforcement of existing regulations will need to occur.”⁴²⁷ Among the new emerging technologies to be utilized are “drainage water management, saturated buffers, phosphorus removal beds or structures, two stage ditches, blind inlets, and phosphorus-optimal wetlands.”⁴²⁸

In addition, the USEPA Action Plan cited a white paper prepared by a commissioned group of experts which recommended a 40% phosphorus load reduction target in all states and provinces surrounding Lake Erie.⁴²⁹ For agricultural lands, the U.S. Action Plan set forth no fewer than six measures to manage “tributary phosphorus loading to address algae impacts in the Lake Erie basin.”⁴³⁰ These included reduced nutrient applications, soil testing, soil and water conservation, crop rotations, wetland creation, use of erosion control structures and buffers, and tile drainage management systems.⁴³¹ The USEPA U.S. Action Plan emphasized that “[w]herever possible in the landscape, . . . restore wetlands and riparian habitat to filter nutrients while benefiting aquatic environments.”⁴³²

H. Michigan’s Implementation of GLWQA Annex 4 Consistent with USEPA and European Sustainability Initiatives

Consistent with the USEPA Action Plan, on November 10, 2016, the MDEQ⁴³³ announced the release of its biennial 2016 Integrated Report (IR) to the USEPA which designated “Michigan waters of the

425. EPA U.S. ACTION PLAN FOR LAKE ERIE, *supra* note 423, cover p.

426. *Id.* at 5.

427. *Id.* at 15.

428. *Id.*

429. *See id.* at 17.

430. *Id.* at 16.

431. *See id.*

432. *Id.*

433. This Article refers to the Michigan Department of Environmental Quality and/or to its acronym “MDEQ” and not, except as otherwise noted, to said agency as renamed by Michigan’s new governor, the Michigan Department of Environment, Great Lakes and Energy or to its acronym “DEGLE” or “EGLE.”

Western Lake Erie Basin as impaired due to extensive algal blooms caused by excessive levels of phosphorous.⁴³⁴ According to the November 2016 IR, “[t]he repeated, persistent, and extensive cyanobacteria blooms impacting the western basin of Lake Erie have been determined to be excessive/nuisance conditions leading to ecological imbalance . . . not supporting . . . other indigenous aquatic life and wildlife.”⁴³⁵

When MDEQ used the word “impaired” it meant “impaired” within the meaning of Clean Water Act § 303(d). “Impaired waters – Under section 303(d) of the Clean Water Act, states, territories, and authorized tribes are required to develop lists of impaired waters. These are waters that are too polluted or otherwise degraded to meet the water quality standards set by states, territories, or authorized tribes.”⁴³⁶ In assessing the status of Michigan surface waters for this purpose, the 2016 IR indicates that MDEQ places each water body “in at least one of five reporting categories . . . based upon the amount of information known about the water body’s water quality status, the degree of designated use support, and the type of impairment preventing designated use support.”⁴³⁷ In addition, the 2016 IR indicates that the GLWQA Annex 4 workgroup had revealed the significance of the cyanobacteria blooms in Lake Erie as pollutants facilitating changes to Lake Erie’s ecosystem, the primary cause of which was excessive nutrients, particularly total phosphorus, for which load targets of 40% reductions were established.⁴³⁸

A Michigan sustainability/SD report, released approximately one month earlier in October 2016, had expressly stated that the state’s water strategy “takes an ecosystem approach” and “recognizes that the core values identified with water are four-fold: environmental,

434. *Western Lake Erie Basin Impairment Reported by MDEQ*, EGLE (Nov. 10, 2016), <https://www.michigan.gov/egle/0,9429,7-135--397204--,00.html> [<https://perma.cc/X6F8-7WC7>].

435. MICH. DEP’T OF ENVTL. QUALITY, WATER QUALITY AND POLLUTION CONTROL IN MICHIGAN 2016 SECTIONS 303(D), 305(B), AND 314 INTEGRATED REPORT xi, 65 (2016) (“[T]he Clean Water Act (CWA), requires states to provide the United States Environmental Protection Agency (USEPA) with an assessment of the quality of their waters [Section 305(b)], a list of waters that do not support their designated uses or attain Water Quality Standards (WQS) and require the development of Total Maximum Daily Loads (TMDLs) [Section 303(d)], and an assessment of status and trends of publicly owned lakes (Section 314).”).

436. MICH. OFFICE OF THE GREAT LAKES, SUSTAINING MICHIGAN’S HERITAGE: A STRATEGY FOR THE NEXT GENERATION 71 (2016).

437. WATER QUALITY AND POLLUTION CONTROL IN MICHIGAN 2016 SECTIONS 303(D), 305(B), AND 314 INTEGRATED REPORT, *supra* note 435, at 1.

438. *See id.* at 30–31, 65–66.

economic, social and cultural”—i.e., *European-style sustainable development*.⁴³⁹ To preserve these values, the Michigan SD report recommended that MDEQ, MDNR, and other Michigan state agencies undertake a comprehensive review, to be completed by 2017, “of all state and local laws, regulations and rules which impact water to remove barriers, inconsistencies, overlaps and reduce regulatory process to improve and facilitate investment in sustainable water-based economics in Michigan.”⁴⁴⁰ The goal of this review was to facilitate the future imposition of water efficiency targets and agriculture water conservation measures, as well as the future promotion of “voluntary” best agricultural water management practices.⁴⁴¹ In addition, the Michigan SD report also emphasized how Michigan would retain its state law and regulatory tools for implementing the Clean Water Act (CWA), “including Section 404 pertaining to wetlands and Section 402 pertaining to pollution control,” to ensure “consistency with federal laws related to management of its wetland, lake and stream resources, and [to create] permitting systems to address Michigan-specific issues.”⁴⁴² Based on the report’s list of acronyms, there is no doubt MDEQ/MDNR would resort to *making NREPA legislative amendments and enhancing NREPA enforcement measures* to maintain consistency with (or supremacy over, as the case may be)⁴⁴³ both the federal CWA and the GLWQA.⁴⁴⁴

The press release announcing the 2016 IR also had stated that the impaired Michigan waterway listing further supported “the need for the goals [previously] established by the Western Basin of Lake Erie Collaborative Agreement” (WBLECA).⁴⁴⁵ The State of Michigan had begun taking part in the WBLECA during June 2015, along with the State of Ohio and the Canadian Province of Ontario.⁴⁴⁶ The WBLECA “established the goal of a 40 percent reduction of total phosphorous loads to Lake Erie by 2025, with an interim goal of a 20

439. SUSTAINING MICHIGAN’S HERITAGE: A STRATEGY FOR THE NEXT GENERATION, *supra* note 436, at 7.

440. *Id.* at 43.

441. *See id.* at 43–44.

442. *Id.* at 69.

443. *See infra* Part VI (describing Michigan’s CWA § 404 waiver authority).

444. *See* SUSTAINING MICHIGAN’S HERITAGE: A STRATEGY FOR THE NEXT GENERATION, *supra* note 436, at 72.

445. *Western Lake Erie Basin Impairment Reported by MDEQ*, *supra* note 434.

446. *See* Great Lakes and St. Lawrence Governors and Premiers, *Western Basin of Lake Erie Collaborative Agreement* (2015).

percent reduction by 2020.”⁴⁴⁷ It also required each state and province to develop an implementation plan outlining their proposed actions and deadlines for achieving them.⁴⁴⁸ Michigan released its WBLECA Implementation Plan in January 2016, and it expressly stated that its purpose was integrally intertwined with the goals of GLWQA Annex 4.⁴⁴⁹ It “is to define actions toward the collaborative goal, serve as interim approach to domestic action plans to be developed under the Great Lakes Water Quality Agreement Annex 4 process, provide focus for allocation of resources for actions, and identify actions and potential policy and/or program needs.”⁴⁵⁰ In furtherance thereof, Michigan had imposed a statewide residential fertilizer phosphorous ban in 2012 and a similar citywide ban in Ann Arbor in 2006, and, as of 2016, had been focusing on requiring phosphorous reductions in the Detroit River, Raisin River, and the state’s portion of the Maumee River basin Michigan shares with Ohio.⁴⁵¹

Furthermore, as the website of the State of Michigan’s Office of the Great Lakes reported, the USEPA Action Plan incorporated major elements of Michigan’s Lake Erie Domestic Action Plan.⁴⁵² The Michigan Domestic Action Plan, which the MDEQ, MDNR, and the Michigan Department of Agriculture had developed, was released on February 28, 2018.⁴⁵³ It affirmed the state’s commitments to curtail point source and nonpoint source discharges to the Great Lakes under the WBLECA and the GLWQA Annex 4 and set forth the “process and tactics for Michigan to implement their obligations as a jurisdiction” alongside the other states surrounding Lake Erie,⁴⁵⁴ especially Ohio and Indiana. These three states have been identified as responsible for the bulk of the phosphorous discharges into Lake

447. *Id.*

448. *See id.*

449. *See* MICH. DEP’T OF ENVTL. QUALITY WATER RES. DIV., MICHIGAN’S IMPLEMENTATION PLAN – WESTERN LAKE ERIE BASIN COLLABORATIVE 1 (2016) (reproducing the Western Basin of Lake Erie Collaborative Agreement, signed June 13, 2015, as Attachment 1).

450. *Id.*

451. *See id.* at 2.

452. *See Taking Action on Lake Erie*, MICH. DEP’T OF ENV’T, GREAT LAKES & ENERGY, https://www.michigan.gov/egle/0,9429,7-135-3313_3677_95226-507535--,00.html [<https://perma.cc/DYY9-EKVD>] (last visited Oct. 30, 2019) (“Michigan’s plan is one of several from surrounding states integrated into the U.S. Environmental Protection Agency’s comprehensive plan released March 2018.”).

453. *See* MICH. DEP’T OF ENV’T, GREAT LAKES & ENERGY, MICHIGAN’S LAKE ERIE DOMESTIC ACTION PLAN 1 (2018).

454. *Id.* at 4, 11–12.

Erie.⁴⁵⁵ In sum, the Michigan Lake Erie Domestic Action Plan set forth various “voluntary conservation land management practices” and federal/state subsidized programs targeting Michigan’s farmers to ensure the required nutrient load reductions can be achieved,⁴⁵⁶ consistent with the wetland restoration goals such Plans,⁴⁵⁷ like the Michigan SD Plan,⁴⁵⁸ USEPA Action Plan,⁴⁵⁹ and the GWLQA,⁴⁶⁰ have identified.

I. Great Lakes Executive Committee Report Addressing Groundwater Science Relevant to GLWQA Annex 8

GLWQA Article 5(2) authorizes Canada and the United States to establish a Great Lakes Executive Committee (GLEC), which the Parties shall co-chair “to help coordinate, implement, review and report on programs, practices and measures undertaken to achieve the purpose of this Agreement.”⁴⁶¹ Environment and Climate Change Canada and USEPA are the GLEC co-chairs.⁴⁶² The GLEC shall convene meetings at least twice a year and shall invite representatives from federal, state, provincial, local, and tribal governments and their agencies.⁴⁶³ The Parties also shall appoint Annex-specific sub-

455. See EPA Announces Action Plan to Combat Harmful Algal Blooms in Lake Erie, *supra* note 424.

456. See MICHIGAN’S LAKE ERIE DOMESTIC ACTION PLAN, *supra* note 453, at 12–15.

457. See *id.* at 12.

458. See SUSTAINING MICHIGAN’S HERITAGE: A STRATEGY FOR THE NEXT GENERATION, *supra* note 436, at 20–21, 23, 69. Significantly, Michigan views the State’s authority to implement CWA § 404 at or above the federal USEPA/USACE/USFWS level, pursuant to the international ecosystem approach to ensuring health and protection of water resources, as being consistent with the State’s international sustainable development obligations and compliance with the longstanding regional governance instruments and institutions, including the IJC, GLWQA, Great Lakes–St. Lawrence River Water Resource Compact Agreement, Conference of Great Lakes–St. Lawrence Governors and Premiers, Great Lakes Commission, etc. See *id.* at 69.

459. See EPA U.S. ACTION PLAN FOR LAKE ERIE, *supra* note 423, at 16, 29, 38.

460. See Great Lakes Water Quality Agreement, *supra* note 190, at art. 3.1(a)(v).

461. See *id.* at arts. 5(2), 5(2)(a).

462. See *Great Lakes Executive Committee Members*, BINATIONAL.NET, <https://binational.net/glec-cegl/mem/> [https://perma.cc/2TDU-XL2B] (last visited Oct. 30, 2019).

463. See Great Lakes Water Quality Agreement, *supra* note 190, at arts. 5(2)(a)–(b).

committees to the GLEC and shall, in consultation with the GLEC, establish priorities for said sub-committees.⁴⁶⁴ Furthermore, the Parties shall prepare, in consultation with the GLEC, a binational Progress Report of the Parties documenting actions taken domestically and binationally in implementation of the GLWQA.⁴⁶⁵

Annex 8 was added by the 2012 Protocol to the GLWQA, which committed the Parties to coordinate groundwater science and management actions.⁴⁶⁶ Annex 8.B.3 requires the Parties to coordinate binational activities together with domestic programs to assess, protect, and manage the quality of groundwater and manage groundwater-related stresses affecting the waters of the Great Lakes, which includes the lake waters and connecting river systems and all open and nearshore waters.⁴⁶⁷ Tributary waters include surface waters that flow directly or indirectly into the waters of the Great Lakes.⁴⁶⁸ Annex 8.D requires the Parties to report their progress implementing Annex 8 every three years.⁴⁶⁹

The significance of this reporting obligation lies partly in the GLWQA parties' prior failure to recognize the importance of groundwater to Great Lakes water quality at the time the GLWQA was first executed in 1972 and partly in the relative paucity since then of holistic science-based reported information defining the scope and extent of observed interactions between surface waters and groundwaters.⁴⁷⁰ In other words, at the end of each three-year Annex 8.D reporting period, it is anticipated that the GLWQA parties will have acquired new information better explaining how surface water quality affects groundwater quality, how surface waters contribute to groundwater recharge, and how groundwater quality and quantity contributes to the health and maintenance of watersheds, wetlands, and the overall Great Lakes ecosystem.⁴⁷¹ They could then utilize such information to meet their GLWQA Annex 2 commitment to develop

464. *Id.* at arts. 5(2)(b), (d).

465. *Id.* at art. 5(2)(e).

466. *See id.* at Annex 8.A.

467. *See id.* at Annex 8.B.3; *see also id.* at art. 1(j).

468. *See id.* at art. 1(i).

469. *See id.* at Annex 8.D.

470. *See* GREAT LAKES EXEC. COMM. ANNEX 8 SUBCOMM., GROUNDWATER SCIENCE RELEVANT TO THE GREAT LAKES WATER QUALITY AGREEMENT: A STATUS REPORT 1–2 (Dec. 2015) (“At that time, groundwater and surface water were still considered as two separate systems, with almost no appreciation for their interaction.”).

471. *See* U.S. GEOLOGICAL SURVEY, REPORT 00-4008, THE IMPORTANCE OF GROUND WATER IN THE GREAT LAKES REGION 12–13 (2000).

and implement effective integrated nearshore frameworks that consider the physical, chemical, and ecological links among (1) Great Lakes Basin watersheds; (2) streams, wetlands, groundwater, and open waters of the lakes; and (3) critical habitat for Great Lakes biota.⁴⁷²

In 2016, the GLEC Annex 8 Subcommittee released its first final status report discussing the groundwater science relevant to the GLWQA.⁴⁷³ This status report concluded that groundwater can enter the Great Lakes as direct and indirect discharge.⁴⁷⁴ Direct discharge occurs when water flows into the Great Lakes through the lakebed.⁴⁷⁵ Indirect discharge occurs “when groundwater is discharged into tributary waters (secondary lakes, streams, or wetlands) that then eventually flow into the Great Lakes.”⁴⁷⁶ It is believed that “indirect discharges via tributary streams provide a greater groundwater contribution than direct discharge to the Great Lakes.”⁴⁷⁷ The report also concluded that groundwater flows can either improve or contaminate surface water quality.⁴⁷⁸ Contamination can occur as the result of road salt, nutrients, industrial compounds, dissolved metals, petroleum hydrocarbons, and pharmaceuticals, etc.⁴⁷⁹ Ultimately, the quantity and flow paths of the discharging water will determine the effects on the receiving body of water.⁴⁸⁰ Groundwater can moderate surface water temperatures to provide suitable habitats, can moderate pH in surface waters, and can provide nutrients that affect the growth and distribution of aquatic plants (macrophytes) and vegetation.⁴⁸¹ Finally, the status report concluded that human activities, such as urban development or other large or extensive infrastructures like *dams and reservoirs*, can alter groundwater recharge rates and runoff

472. See GREAT LAKES EXEC. COMM. ANNEX 8 SUBCOMM., *supra* note 470, at 2–3.

473. See *id.* at 1.

474. See *id.* at 48 (explaining water runs through direct and indirect channels).

475. See *id.* at 11 (explaining water is considered direct when it flows through a lakebed).

476. *Id.* at 11.

477. *Id.*

478. See *id.* at 12 (evaluating the effects groundwater flow has on surface water quality).

479. See *id.* (explaining that contamination can occur through many substances).

480. See *id.* at 12 (explaining how the flow path of water affects the receiving body of water).

481. See *id.* (describing how groundwater affects surface water).

into surface water bodies.⁴⁸² However, there “are relatively few studies in the Great Lakes Basin that estimate how groundwater recharge varies in both space and time.”⁴⁸³ The study concluded that aside from the significant local effects of population growth on groundwater availability, “the greatest water stress was caused by climate change.”⁴⁸⁴ Relying upon this report’s findings, therefore, the GLWQA parties, or even the Great Lakes States themselves, could arguably justify further federal and state funding of dam removal projects within their jurisdictions.⁴⁸⁵

IV. MICHIGAN’S INTERNATIONAL, FEDERAL, AND STATE LAW OBLIGATIONS UNDER THE GREAT LAKES–ST. LAWRENCE RIVER BASIN AGREEMENT AND INTERSTATE WATER RESOURCES COMPACT

On October 3, 2008, Congress, consistent with the United States Constitution,⁴⁸⁶ passed proposed federal legislation consenting to the interstate Compact regarding water resources in the Great Lakes–St. Lawrence River Basin that the States of Michigan, Illinois, Indiana, Minnesota, New York, Ohio, and Wisconsin and the Commonwealth of Pennsylvania had executed on December 13, 2005.⁴⁸⁷ Former President Bush then signed that legislation into federal law on the same day.⁴⁸⁸ The Compact implements the international law obligations Michigan and such other states assumed under the international Great Lakes–St. Lawrence River Basin Sustainable

482. *See id.* at 13 (discussing how humans affect the groundwater/surface water system).

483. *Id.* at 59.

484. *Id.*

485. *See, e.g.,* Kevin Bunch, *Proposed Dam Removal Would Expand Fish Habitat on St. Croix*, INT’ JOINT COMM’N (Aug. 19, 2019), <https://www.ijc.org/en/proposed-dam-removal-would-expand-fish-habitat-st-croix> [<https://perma.cc/G97A-9U6Y>]; MICH. DEP’T OF ENVTL. QUALITY, STATE OF THE GREAT LAKES REPORT: RESTORING THE LAKES chs. 6–4, 8–4, 10–2 (2007).

486. *See* U.S. CONST. art. I, § 10, cl. 3 (“No State shall, without the Consent of Congress . . . enter into any Agreement or Compact with another State . . .”).

487. *See* Great Lakes–St. Lawrence River Basin Water Resources Compact of 2008, Pub. L. No. 110-342, § 1, 122 Stat. 3739 (2008) (“Joint Resolution [e]xpressing the consent and approval of Congress to an interstate compact regarding water resources in the Great Lakes–St. Lawrence River Basin.”).

488. *See* Press Release, Office of the Press Sec’y, President Bush Signs H.R. 3986, S. 1760, S. 2135, S.J.Res. 35, S.J.Res. 45 Into Law (Oct. 3, 2008) (on file with the White House). *See generally* 122 Stat. 3739.

Water Resources Agreement⁴⁸⁹ they executed with the Canadian Province of Ontario and the Government of Quebec on the same day.⁴⁹⁰ The Compact does not abrogate or infringe upon or otherwise undermine the treaty power of the United States or alter or amend any international treaty or term the United States has executed with Canada or another nation.⁴⁹¹

Specifically, Congress consented to the parallel state legislation Michigan and the other Great Lakes States had enacted to implement the interstate Compact and the international Agreement upon which it is based.⁴⁹² The provisions of the Compact as ratified by Congress are codified in Part 342 of Michigan's Natural Resources and Environmental Protection Act (NREPA) at Michigan Compiled Laws (MCL) § 324.34201,⁴⁹³ while the provisions of the Compact as ratified by the State are codified in NREPA at MCL § 324.32201.⁴⁹⁴ "Specific provisions from the Compact and Agreement for water management and water conservation and efficiency program elements and their corresponding legal citations" are referenced in Michigan's *Draft Five Year Program Review Report of the Great Lakes–St. Lawrence River Basin Water Resources Compact*.⁴⁹⁵ The Michigan Department of

489. See Great Lakes–St. Lawrence River Basin Sustainable Water Resources Agreement, Can.–U.S., Dec. 13, 2005.

490. See §§ 1.1, 4.5, 122 Stat. at 3739, 3749. See generally Great Lakes–St. Lawrence River Basin Sustainable Water Resources Agreement, *supra* note 489 (indicating that the Canadian Province of Ontario and the Government of Quebec were parties to the agreement).

491. See § 8.2, 122 Stat. at 3762.

492. Such Michigan state legislation included (1) Public Act 190 (SB 212), and (2) Public Act 184 (HB 4343). See 2008 Mich. Pub. Acts No. 4; 2008 Mich. Pub. Acts No. 91. The Michigan House Fiscal Agency noted in its summary of HB 4343 that "[t]he bill would add a new Part 342 to the [NREPA] to ratify the . . . Compact. . . . The Agreement and Compact detail how the Great Lakes states and provinces are to manage and protect the waters of the Great Lakes and St. Lawrence River Basin . . ." HOUSE FISCAL AGENCY, GREAT LAKES–ST. LAWRENCE RIVER BASIN WATER RESOURCES COMPACT: A REVISED SUMMARY OF HOUSE BILL 4343 AS INTRODUCED 2-28-07, at 1 (2007). In addition, the Michigan House Fiscal Agency noted in its June 2008 summary of SB 212 that "[t]he proposed new Section of Part 327 NREPA (Section 32730) concerns the effect of the Compact on Michigan law and the authority of the Council created by the Compact with respect to Michigan law," including for court enforcement and penalties imposition purposes. HOUSE FISCAL AGENCY, RATIFY GREAT LAKES WATER COMPACT: A SUMMARY OF SENATE BILL 212 AS PASSED BY THE SENATE 5-14-08 at 1–2 (2008) (emphasis added).

493. See MICH. COMP. LAWS § 324.34201, art. I (2005).

494. See generally § 324.32201.

495. See STATE OF MICH., GREAT LAKES–ST. LAWRENCE RIVER BASIN WATER RESOURCES COMPACT DRAFT—FIVE-YEAR PROGRAM REVIEW REPORT 1–2 (providing

Environmental Quality (MDEQ) (renamed on April 22, 2019, the Michigan Department of Environment, Great Lakes, and Energy (DEGLE or EGLE))⁴⁹⁶ is designated as the “lead agency responsible for Michigan’s water management and water conservation and efficiency programs” and consequently is the lead overseer of Michigan’s implementation of the Compact and Agreement.⁴⁹⁷

The Compact required Michigan and the other states, within five years of the Compact’s effective date, to create a program for the management and regulation of new or increased withdrawals and consumptive uses of Great Lakes–St. Lawrence River Basin (Basin) waters, including both surface and ground water.⁴⁹⁸ These rules were to be adopted and implemented consistent with the Compact’s “Decision-Making Standard,”⁴⁹⁹ which implements Article 203 of the Great Lakes–St. Lawrence River Basin Sustainable Water Resources Agreement.⁵⁰⁰ This Decision-Making Standard imposed several requirements. For example, it required *inter alia* that any proposed lake water withdrawals or consumptive uses (1) “result in no significant individual or cumulative adverse impacts to the quantity or quality” of Basin waters and its surrounding ecosystem;⁵⁰¹ (2) “incorporate Environmentally Sound and Economically Feasible Water Conservation Measures”;⁵⁰² and (3) are “in compliance with all applicable municipal, State and federal laws [e.g., Clean Water Act], as well as regional interstate and international agreements, including the Boundary Waters Treaty of 1909.”⁵⁰³

The Compact also required Michigan and the other Great Lakes States, within two years of the Compact’s effective date, to collectively (1) identify and define certain water conservation and efficiency objectives based on certain specified benchmarks;⁵⁰⁴ (2)

the corresponding MCL provisions for numerous Compact/Agreement Sections/Articles).

496. See Press Release, Mich. Dep’t of Env’t, Great Lakes and Energy Media Office, MDEQ to Become EGLE on April 22nd (Apr. 17, 2019) (describing the reorganization and unveiling of EGLE’s new logo).

497. GREAT LAKES–ST. LAWRENCE RIVER BASIN WATER RESOURCES COMPACT DRAFT—FIVE-YEAR PROGRAM REVIEW REPORT, *supra* note 495, at 1–2.

498. See § 4.10.1, 122 Stat. at 3754–55.

499. §§ 4.11–12, 122 Stat. at 3755–56

500. See Great Lakes–St. Lawrence River Basin Sustainable Water Resources Agreement, *supra* note 489, at 6, 10.

501. § 4.11(2), 122 Stat. at 3755.

502. § 4.9(4)(e), 122 Stat. at 3754.

503. § 4.9(4)(f), 122 Stat. at 3754.

504. See §§ 1.2, 2.2, 4.1, 4.2(1)(a)–(e), 122 Stat. at 3739, 3744, 3747, 3748.

“develop [their] own Water conservation and efficiency goals and objectives consistent with the Basin-wide goals and objectives”;⁵⁰⁵ and (3) “develop and implement a Water conservation and efficiency program, either voluntary or mandatory, within [their] jurisdiction[s] based on the Party’s goals and objectives.”⁵⁰⁶ Michigan and each of the other states also must report annually to the Great Lakes–St. Lawrence River Basin Water Resources Council, consisting of the Governors of such states, and make available to the public their assessment of whether their respective programs are meeting their goals and objectives.⁵⁰⁷

The primary purpose of the Compact and Agreement and the corollary state laws is to collectively protect, conserve, restore, improve, and effectively manage Basin waters and natural resources cooperatively, consistent with the European precautionary principle.⁵⁰⁸ For example, Compact Section 1.3.2.a states that the “current lack of full scientific certainty should not be used as a reason for postponing measures to protect the Basin ecosystem,” and Section 1.3.2.h states that the adaptive [ecosystem-based] management approach to the conservation of Basin resources shall consider the uncertainties in and evolution of scientific knowledge concerning Basin waters and natural resources.⁵⁰⁹ In addition, Compact Section 4.5.1.d provides that the protection of the integrity of the Great Lakes–St. Lawrence River Basin Ecosystem shall be the overarching principle guiding the regional review of a party’s proposal(s) to undertake activities therein,

505. § 4.2(2), 122 Stat. at 3748.

506. *Id.*

507. *See id.* In addition, SJR 45 approved and recognized that the Compact required Michigan and other states, two (2) years of the Compact’s effective date, to “commit to promote Environmentally Sound and Economically Feasible Water Conservation Measures” that *inter alia* “promote efficient use of [w]ater[,] [i]dentif[y] and shar[e] . . . best management practices and state of the art conservation and efficiency technologies,” and apply “sound planning principles.” § 4.2.4(a)–(c). Furthermore, Michigan and these other states must “implement [consistent therewith] . . . a voluntary or mandatory [w]ater conservation program for all, including existing Basin [w]ater users.” § 4.2(5).

508. Lawrence A. Kogan, *The Extra-WTO Precautionary Principle: One European “Fashion” Export the United States Can Do Without*, 17 TEMP. POL. & CIV. RTS. L. REV. 491, 525–28 (2008).

509. § 1.2(2)(a), 122 Stat. at 3743; *see also* Great Lakes–St. Lawrence River Basin Sustainable Water Resources Agreement, *supra* note 489, at 2–3 (“The objectives of this Agreement are: a. To act together to protect, conserve, and restore the Waters of the Great Lakes–St. Lawrence River Basin because current lack of scientific certainty should not be used as a reason for postponing measures to protect the Basin Ecosystem.”).

recognizing the uncertainties surrounding the proposal's future environmental impacts.⁵¹⁰ These Compact provisions implement Michigan's and the other Great Lakes States' obligation to follow the European precautionary principle under Article 209 of the Great Lakes–St. Lawrence River Basin Sustainable Water Resources Agreement.⁵¹¹ Article 209.b requires the parties to “take into account the current state of scientific knowledge, or uncertainty, and appropriate Measures to *exercise caution in cases of uncertainty, if serious damage may result.*”⁵¹² And Article 209.c mandates that the parties “[c]onsider Adaptive Management principles and approaches [i.e., ecosystem-based management], considering and providing adjustments for the *uncertainties in, and evolution of science* concerning the Basin's water resources, watersheds and ecosystems.”⁵¹³

Compact Section 4.15.1, furthermore, requires the parties to assess the cumulative impacts of St. Lawrence River Basin water withdrawals, diversions, and consumptive uses every five years or when more than fifty million additional gallons per day on average have been lost within any ninety-day period since the last five-year assessment.⁵¹⁴ Compact Section 4.15.1.b requires the parties to “[g]ive substantive consideration to climate change or other significant threats to Basin Waters.”⁵¹⁵ When undertaking such substantive consideration, the parties must “take into account the current state of scientific knowledge or uncertainty and appropriate Measures to exercise [pre]caution in cases of uncertainty if serious damage may result.”⁵¹⁶

510. See § 4.5(1)(d), 122 Stat. at 3750; see also GREAT LAKES–ST. LAWRENCE RIVER BASIN WATER RESOURCES COMPACT: A REVISED SUMMARY OF HOUSE BILL 4343 AS INTRODUCED 2-28-07, *supra* note 492, at 6 (“*Principle for reviewing proposals.* The overarching principle for reviewing proposals subject to regional review is the protection of the basin ecosystem in the face of uncertainty.”).

511. See Great Lakes–St. Lawrence River Basin Sustainable Water Resources Agreement, *supra* note 489, at 2.

512. *Id.* at 16 (emphasis added).

513. *Id.* (emphasis added).

514. See § 4.15(1), 122 Stat. at 3758.

515. § 4.15(1)(b), 122 Stat. at 3759.

516. *Id.*; see also § 4.15(1)(c), 122 Stat. at 3759 (discussing how adaptive management principles must take into account the uncertainties in and evolution of science concerning Basin water resources, watersheds and ecosystems); GREAT LAKES–ST. LAWRENCE RIVER BASIN WATER RESOURCES COMPACT: A REVISED SUMMARY OF HOUSE BILL 4343 AS INTRODUCED 2-28-07, *supra* note 492, at 12–13 (“*Assessment of cumulative impacts . . . [g]ive substantive consideration to climate change or other significant threats to basin waters and take into account the current*

At least one legal commentator has noted that although the Great Lakes–St. Lawrence River Basin Sustainable Water Resources Agreement “is legally non-binding” on Michigan and the other Great Lakes States “(because U.S. states and Canadian provinces may not make international law) [under their respective systems of federalism, which authority is reserved only to the federal government], it is considered morally obligatory.”⁵¹⁷ He also emphasized, however, that since “the eight U.S. states [including Michigan] are already, in effect, legally bound to its substantive provisions insofar as they are identical to those in the legally binding Compact,” the Compact “should ensure [the states’] cooperation and compliance” and “creat[e] an incentive for Ontario and Quebec also to cooperate and comply” with the Agreement.⁵¹⁸ Another legal commentator, meanwhile, has expressed skepticism toward the Agreement’s effectiveness given its legally *non-binding* nature.⁵¹⁹ She has called for Canada and the United States to execute a legally binding international agreement to ensure that the residents of the Canadian provinces, representing only “40% of the basin population,” are adequately protected against Great Lakes–St. Lawrence River Basin diversions.⁵²⁰

V. KEY U.S. GREAT LAKES GOVERNANCE AND FUNDING INSTRUMENTALITIES

The U.S. federal and state governments have utilized several key governance and funding instrumentalities to facilitate the eight Great Lakes States’, including Michigan’s, protection and preservation of the Great Lakes and St. Lawrence River Basin, consistent with the European precautionary principle and the ecosystem-based management principle, at the expense of constitutionally protected

state of scientific knowledge, or uncertainty, and exercise [pre]caution in the face of uncertainty if serious damage could result.”); Michigan PA 190, at Art. 4 § 4.15b, p. 14; Great Lakes–St. Lawrence River Basin Sustainable Water Resources Agreement, *supra* note 489, at 15–16 (“The assessment of Cumulative Impacts shall form a basis for the review of the Standard and the Exception Standard[,] and their application . . . [g]ive[s] substantive consideration to climate change or other significant threats to Basin Waters and take[s] into account the current state of scientific knowledge, or uncertainty, and appropriate Measures to exercise [pre]caution in cases of uncertainty, if serious damage may result.”).

517. Karkkainen, *supra* note 187, at 1000.

518. *Id.*

519. See Kane, *supra* note 191, at 451–52.

520. *Id.* at 452 (“The Agreement imposes no legal consequences on the states for failing to consider the objections of the Great Lakes premiers.”).

private property rights. These instrumentalities are the Federal Great Lakes Advisory Board, the Great Lakes Restoration Initiative, and the Great Lakes Commission.

A. The Federal Great Lakes Advisory Board (GLAB)

On December 13, 2018, USEPA Region 5 Administrator and Great Lakes National Program Manager, Cathy Stepp, issued a press release announcing that (then) Acting USEPA Administrator Andrew Wheeler had approved the reestablishment of the federal advisory committee known as the Great Lakes Advisory Board (GLAB).⁵²¹ The GLAB had previously been chartered by USEPA in 2012,⁵²² and its charter was subsequently renewed in 2014 and 2016.⁵²³ The GLAB's Charter stated that the objective of the GLAB was to "provide advice and recommendations on matters related to the *Great Lakes Restoration Initiative* . . . [and] on domestic matters related to implementation of the U.S.–Canada *Great Lakes Water Quality Agreement*."⁵²⁴ The December 13, 2018, press release reaffirmed this primary objective and scope of activities.⁵²⁵

Apparently, the GLAB had been reestablished in response to a May 21, 2018, letter signed by twenty-four members of Congress that had previously been dispatched to former USEPA Administrator Scott

521. See *About EPA – EPA Region 5*, *supra* note 204 (identifying the regions EPA Region five covers: the States of Minnesota, Wisconsin, Illinois, Indiana, Michigan, and Ohio and thirty-five federally recognized Indian Tribes); see also *News Releases from Region 05, EPA Re-Establishes Great Lakes Advisory Board*, EPA (Dec. 13, 2018), <https://www.epa.gov/newsreleases/epa-re-establishes-great-lakes-advisory-board> [<https://perma.cc/HA8D-3PCN>].

522. See EPA, *Establishment of the Great Lakes Advisory Board (GLAB)*, 77 Fed. Reg. 31,975, 32,089 (proposed May 31, 2012); EPA, *Proposed Information Collection Request; Comment Request; Underground Injection Control (UIC) Program*, 79 Fed. Reg. 46,335, 46,437 (proposed Aug. 8, 2014); GREAT LAKES ADVISORY BD., UNITED STATES ENVIRONMENTAL PROTECTION AGENCY CHARTER (renewed May 12, 2016 by EPA and filed with Congress on June 13, 2016).

523. See *EPA Re-Establishes Great Lakes Advisory Board*, EPA (Dec. 13, 2018), <https://www.epa.gov/newsreleases/epa-re-establishes-great-lakes-advisory-board> [<https://perma.cc/77ZT-T4FT>].

524. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY CHARTER, *supra* note 522 (emphasis added).

525. See *EPA Re-Establishes Great Lakes Advisory Board*, *supra* note 523 ("The GLAB will advise on matters related to the Great Lakes Restoration Initiative and the implementation of the Great Lakes Water Quality Agreement between the United States and Canada.").

Pruitt.⁵²⁶ The letter requested that he “maintain the Great Lakes Advisory Board,” rather than abolish it.⁵²⁷ The letter emphasized the ongoing importance of the GLAB, which had been and continues to be subject to the public meetings notice and participation requirements of the Federal Advisory Committee Act (FACA)⁵²⁸ and applicable agency regulations and guidance *in directing the GLRI’s investments*.⁵²⁹ The FACA database reveals that the GLAB, for fiscal years 2015,⁵³⁰ 2016,⁵³¹ and 2018,⁵³² had convened at least one dozen public meetings and had issued at least one public report.⁵³³ That report “emphasiz[ed] prevention, protection and sustainability as much as restoration, in keeping with the Great Lakes Water Quality Agreement and the 2005 Great Lakes Regional Collaboration Strategy.”⁵³⁴

526. See Letter from Congressional Members, to Hon. Scott Pruitt, Adm’r, EPA (May 21, 2018).

527. *Id.*

528. See generally Federal Advisory Committee Act of 1972, Pub. L. No. 92-463, 86 Stat. 770 (Oct. 6, 1972).

529. See Gen. Servs. Admin., *Federal Advisory Committee Management*, 66 Fed. Reg. 37,575, 37,728 (July 19, 2001); see also WHITE HOUSE OFFICE OF MGMT. AND BUDGET, CIRCULAR NO. A-135, MANAGEMENT OF FEDERAL ADVISORY COMMITTEES (1994).

530. See *Committee Detail, Great Lakes Advisory Board, Fiscal Year 2015*, FACADATABASE.GOV, <https://www.facadatabase.gov/FACA/FACAPublicCommittee?id=a10t0000001h0k6> [https://perma.cc/5HFJ-8E5R] (established June 15, 2012). In FY 2015, the GLAB convened four public meetings, two of them by conference call. See *id.* “The GLAB provided advice on incorporating . . . Adaptive Management into the Great Lakes Restoration Initiative. The GLAB issued ten recommendations in its September 2015 report ‘Recommendations for Integrating Adaptive Management into Implementation of the GLRI.’” *Id.*

531. See *Committee Detail, Great Lakes Advisory Board, Fiscal Year 2016*, FACADATABASE.GOV, <https://www.facadatabase.gov/FACA/FACAPublicCommittee?id=a10t0000001h0On> [https://perma.cc/N9SJ-2GT5] (established June 15, 2012). During FY 2016, the GLAB convened four public meetings and EPA-formed the Science and Information Subcommittee (SIS) “to assist the GLAB in providing ongoing advice to the Administrator in her capacity as Chair of the Interagency Task Force (IATF) on Great Lakes technical issues. The GLAB and SIS each held 4 public meetings to discuss issues regarding the Great Lakes Restoration Initiative.” *Id.* The report reveals that the “Agency reviewed the GLAB’s recommendations and took action on them during FY 2016.” *Id.*

532. See *2019 Current Fiscal Year Report: Great Lakes Advisory Board*, FACADATABASE.GOV (Oct. 14, 2009).

533. See GREAT LAKES ADVISORY BD., RECOMMENDATIONS TO THE GREAT LAKES INTERAGENCY TASK FORCE ON THE DEVELOPMENT OF THE FY 2015–2019 GREAT LAKES RESTORATION INITIATIVE ACTION PLAN 1, 3 (2013).

534. *Id.* at 2.

It should be noted that seven of the congressional members who had signed the May 21, 2018, letter to former USEPA Administrator Pruitt were Republicans, while an additional two letter signatories were members of the Minnesota Farmer's Labor Party (FLP).⁵³⁵ The FLP movement had long reflected European socialist ideas "to the left of both the New Deal of the 1930s and the Democratic Party of the early 2000s."⁵³⁶

B. The Federal Great Lakes Restoration Initiative (GLRI)

In addition, the May 21, 2018, congressional letter noted above also had referenced the February 28, 2017, hearing of the Interior, Environment, and Related Agencies Subcommittee of the powerful

535. See Letter from Congressional Members, *supra* note 526. These congressional members included David P. Joyce (R-OH) (lead signatory), Marcy Kaptur (D-OH), Debbie Dingell (D-MI), Janice Schawkosky (D-IL), Bill Huizenga (R-MI), Mike Quigley (D-IL), Gwen S. Moore (D-WI), Brian Higgins (D-NY), John Moolenaar (R-MI), Bobby L. Rush (D-IL), Brenda L. Lawrence (D-MI), Daniel T. Kildee (D-MI), Sean Patrick Maloney (D-NY), Marcia L. Fudge (D-OH), Paul Mitchell (R-MI), Daniel W. Lipinski (D-IL), Bradley S. Schneider (D-IL), Betty McCollum (Farmer Labor Party-MN), Richard M. Nolan (Farmer Labor Party-MN), Fred Upton (R-MI), Sander M. Levin (D-MI), Peter Visclosky (D-IN), Chris Collins (R-NY), and Mike Bishop (R-MI). See *id.*

536. Paul Lubotina, *The Minnesota Farm-Labor Party: The Role of Third Parties in the Americanization of European Labor Radicals in the Great Lakes Region*, 4 UPPER COUNTRY: J. LAKE SUPERIOR REGION 1, 13 (2016); Graeme Anfinson, *A Brief History of the MN Farmer-Labor Party*, SOCIALIST REVOLUTION (June 19, 2011), <https://socialistrevolution.org/a-brief-history-of-the-mn-farmer-labor-party> [<https://perma.cc/CB8Z-6U7Q>]; Eric Blanc, *The Ballot and the Break*, JACOBIN (Dec. 4, 2017), <https://www.jacobinmag.com/2017/12/democratic-party-minnesota-farmer-labor-floyd-olson> [<https://perma.cc/S93F-VD4X>]; Paul D'Amato, *What Lessons to Take from Farmer-Labor Parties?*, SOCIALISTWORKER.ORG (Mar. 20, 2018), <https://socialistworker.org/2018/03/20/what-lessons-to-take-from-farmer-labor-parties> [<https://perma.cc/49LJ-P592>]; Frederick L. Johnson, *The 'Mother of the Farmer-Labor Party' Didn't Really Want to Add the 'D' to the Beginning*, MINNPOST (Mar. 20, 2017), <https://www.minnpost.com/mnopedia/2017/03/mother-farmer-labor-party-didn-t-really-want-add-d-beginning/> [<https://perma.cc/LMG6-SW6V>]; Karvey Klehr, *Dubious Alliance: The Making of Minnesota's DFL Party*, by John Haynes, COMMENTARY (Dec. 1984), <https://www.commentarymagazine.com/articles/dubious-alliance-the-making-of-minnesotas-dfl-party-by-john-haynes/> [<https://perma.cc/B9TS-NHVH>]; Tom O'Connell, *Minnesota Farmer-Labor Party, 1924-1944*, MNOPEA, <http://www.mnopedia.org/minnesota-farmer-labor-party-1924-1944> [<https://perma.cc/7TEV-CLKF>] (last modified Feb. 6, 2019); Henry Rodgers, *Democratic-Farmer-Labor Party Member Suspended After Saying Republicans Should Be Brought 'to the Guillotines'*, DAILY CALLER (Oct. 16, 2018), <https://dailycaller.com/2018/10/16/democratic-party-william-davis-minnesota-suspended-guillotines/> [<https://perma.cc/C5RL-U5AX>].

House of Representatives Appropriations Committee.⁵³⁷ Congressman Higgins, one of the letter’s Democratic signatories, had previously testified at that committee hearing.⁵³⁸ Representative Higgins’s prepared testimony revealed that “[s]ince the creation of the Great Lakes Restoration Initiative [GLRI] in 2010, *nearly \$2.2 billion ha[d] been invested* in projects to clean up the Great lakes”⁵³⁹ The GLRI “*is the largest investment in the Great Lakes in two decades* and funds a variety of activities including [through issuance of] grants and the direct implementation of Great Lakes Legacy Act projects.”⁵⁴⁰ While the Great Lakes Legacy Act had last been reauthorized in 2008, its projects have since been funded under the GLRI.⁵⁴¹ When the GLRI was established in 2010, the Interior, Environment, and Related Agencies Subcommittee had proposed appropriations of approximately \$475 million to support USEPA’s fulfillment of that program’s objectives, along with USEPA’s implementation of the

537. See generally Letter from Congressional Members, *supra* note 526.

538. See *Interior, Environment, and Related Agencies Appropriations for 2018: Hearings Before a Subcomm. of the Comm. on Appropriations H.R.*, 115th Cong. 15 (2017).

539. *Id.* at 21–23 (statement of Brian Higgins (NY-26)).

540. *Great Lakes Funding*, EPA, <https://www.epa.gov/great-lakes-funding> [<https://perma.cc/SN6X-SE4Z>] (last updated Aug. 2, 2019). The Great Lakes Legacy Act authorized the appropriation of \$50 million annually, from 2004 to 2008, on a 35% non-Federal cost-share-basis, for contaminated sediment remediation in the Great Lakes States. It also authorized USEPA to give priority to projects in “Areas of Concern” located wholly or partially in the United States that: “1. Constitute remedial action for contaminated sediment; 2. Have been identified in a Remedial Action Plan (RAP) and are ready to be implemented; 3. Use an innovative approach, technology, or technique that may provide greater environmental benefits or equivalent environmental benefits at a reduced cost; or 4. Include remediation to be commenced not later than 1 year after the date of receipt of funds for the project.” Environmental Protection Agency, *Implementation of the Great Lakes Legacy Act of 2002*, 71 Fed. Reg. 25,504, 25,505 (May 1, 2006); *About the Great Lakes Legacy Act*, EPA, <https://www.epa.gov/great-lakes-legacy-act/about-great-lakes-legacy-act> [<https://perma.cc/NC6F-NYVT>] (last updated Sept. 5, 2019) (“The Legacy Act was authorized in 2002 with the first appropriation in 2004. The Act was Reauthorized in 2008.”); *Great Lakes Legacy Act*, EPA, <https://www.epa.gov/great-lakes-legacy-act> [<https://perma.cc/HPV5-EMA8>] (last updated Aug. 23, 2019) (“The Great Lakes Legacy Act provides federal funding to accelerate contaminated sediment remediation in Areas of Concern.”); *Great Lakes Funding*, EPA, <https://www.epa.gov/great-lakes-funding> [<https://perma.cc/69AS-MQ8X>] (last updated Aug. 2, 2019).

541. See Memorandum from the Resolutions Review Committee on Recommended Actions for the Resolutions Passed at the 2008 Annual Meeting in 2018 Great Lakes Commission Annual Meeting (Aug. 29, 2018) (on file with Great Lakes Comm’n des Grands Lacs).

Great Lakes Water Quality Agreement (GLWQA).⁵⁴² In effect, Congress, in an Interior Department appropriations bill subsequently enacted into law,⁵⁴³ had exercised its statutory “transfer authority” to authorize the USEPA Administrator to transfer to other federal department or agency heads up to \$475 million of the funds appropriated for the GLRI and GLWQA for fiscal years 2010–2014.⁵⁴⁴ These funds were to be used to develop a comprehensive, multi-year restoration action plan that will lead to the restoration of the Great Lakes and build upon the foundation of the Great Lakes Regional Collaboration Strategy.⁵⁴⁵

The Congressional GAO subsequently reported in 2013 that approximately \$300 million had been appropriated in fiscal years 2011 and 2012 for the GLRI and that by September 2013, approximately \$1.3 billion actually had been appropriated to the GLRI.⁵⁴⁶ The GAO report highlighted the 2010 Action Plan the USEPA and interagency task force had developed to guide their implementation of the GLRI.⁵⁴⁷ It identified four key environmental problems: “(1) toxic substances

542. See Department of the Interior, Environment, and Related Agencies Appropriations Act, H.R. REP. NO. 111-316, at 35, 110 (2010) (accompanying H.R. 2996).

543. See generally Administrative Provisions, Environmental Protection Agency, Pub. L. No. 111-88, 123 Stat. 2904, 2938 (2009) (“The [USEPA] Administrator is authorized to transfer up to \$475,000,000 of the funds appropriated for the Great Lakes Initiative under the heading ‘Environmental Programs and Management’ to the head of any Federal department or agency, with the concurrence of such head, to carry out activities that would support the Great Lakes Restoration Initiative and Great Lakes Water Quality Agreement programs, projects, or activities; to enter into an interagency agreement with the head of such Federal department or agency to carry out these activities; and to make grants to governmental entities, nonprofit organizations, institutions, and individuals for planning, research, monitoring, outreach, and implementation in furtherance of the Great Lakes Restoration Initiative and the Great Lakes Water Quality Agreement.”).

544. See U.S. GOV’T ACCOUNTABILITY OFFICE, GAO-15-526, GREAT LAKES RESTORATION INITIATIVE: IMPROVED DATA COLLECTION AND REPORTING WOULD ENHANCE OVERSIGHT 3 n.4 (2015) (“Transfer authority is statutory authority provided by Congress to transfer budget authority from one appropriation or fund account to another. In fiscal years 2010, 2012, 2014, and 2015, Congress did not provide appropriations for GLRI purposes. Instead, in those fiscal years, Congress provided EPA with transfer authority, up to a maximum amount, to undertake GLRI programs and projects. However, in fiscal years 2011 and 2013, Congress did provide EPA with specific appropriations for GLRI purposes.”).

545. See H.R. REP. NO. 111-316, at 111; see also 123 Stat. at 2938.

546. See U.S. GOV’T ACCOUNTABILITY OFFICE, GAO-13-797, GREAT LAKES RESTORATION INITIATIVE: FURTHER ACTIONS WOULD RESULT IN MORE USEFUL ASSESSMENTS AND HELP ADDRESS FACTORS THAT LIMIT PROGRESS 3, 16 (2013).

547. *Id.* at Highlights.

and areas of concern; (2) invasive species; (3) nearshore health and nonpoint source pollution; (4) habitat and wildlife protection and restoration.”⁵⁴⁸ Habitat and wildlife protection and restoration included “revitalizing wetlands and other habitat” and comprehensively assessing “the entire Great Lakes coastal wetlands . . . by 2014.”⁵⁴⁹ The GAO report also indicated that Goal #2 of the nonpoint source pollution focus area was to ensure that “[l]and use, recreation, and economic activities are managed to ensure that nearshore aquatic, wetland, and *upland habitats* will sustain the health and function of natural communities.”⁵⁵⁰

Among USEPA’s many objectives for the habitat and wildlife protection focus area, three arguably imposed the greatest constraints on landowners’ ability to fully exercise their constitutionally protected private property rights. First, USEPA had sought, by 2010, to “compile and map the highest priority watersheds for implementation of targeted nonpoint source pollution control measures.”⁵⁵¹ Second, USEPA had sought, by 2014, to “increase by 50 percent over 2008 levels” the “area of agricultural lands in conservation and/or utilizing conservation tillage practices,” as revealed under U.S. Farm Bill programs’ required reduced erosion, nutrients, and/or pesticide loading.⁵⁵² Third, USEPA had sought to ensure that, by 2014, “97,500 acres of wetlands, wetland-associated upland, and high-priority coastal, upland, urban, and island habitats will be protected, restored or enhanced.”⁵⁵³

In January 2014, Congress appropriated *an additional \$300 million* to the USEPA in carrying out activities that supported the GLRI and GLWQA programs, projects, and activities.⁵⁵⁴ In December 2015, Congress appropriated an *additional \$300 million* to the USEPA for use during fiscal year 2016 in supporting further implementation of the GLRI and the GLWQA.⁵⁵⁵ In addition, it amended the Federal Water Pollution Control Act (FWPCA/Clean Water Act (CWA)) by adding new § 118(c), which formally “established in the [USEPA] a

548. *Id.* at 9–10.

549. *Id.* at 10.

550. *Id.* at 88 (emphasis added).

551. *Id.* at 88.

552. *Id.* at 89–90.

553. *Id.* at 91–92.

554. See Consolidated Appropriations Act of 2014, Pub. L. No. 113-76, 128 Stat. 5, 320 (2014).

555. See Consolidated Appropriations Act, 2016, Pub. L. No. 114-113, 129 Stat. 2242, 2557 (2015).

Great Lakes Restoration Initiative . . . to carry out programs and projects for Great Lakes protection and restoration.”⁵⁵⁶ Consistent with the 2013 GAO Report, two of the four “focus areas” toward which the USEPA was required to place the GLRI funding included “the prevention and mitigation of nonpoint source pollution” and “habitat and wildlife protection and restoration, including wetlands restoration and preservation.”⁵⁵⁷ The USEPA was directed to collaborate with federal partners “to select the best combination of programs and projects for Great Lakes protection and restoration” that could “achieve strategic and measurable environmental outcomes that implement the Great Lakes Action Plan and the Great Lakes Water Quality Agreement.”⁵⁵⁸

In December 2016, Congress appropriated *another \$300 million* for fiscal years 2017 through 2021 for USEPA to use in implementing programs or projects under the Great Lakes Restoration Initiative Action Plan *or the Great Lakes Water Quality Agreement*.⁵⁵⁹ Consistent with both the 2013 GAO Report and the fiscal year (FY) 2016 appropriations bill, the FY 2017 appropriations bill identified two of the four “Focus Areas” as “the prevention and . . . mitigation of nonpoint source pollution” and “habitat and wildlife protection and restoration, including wetlands restoration and preservation.”⁵⁶⁰ On February 15, 2019, the president signed into law H.J. Resolution 31 titled “Making Further Continuing Appropriations for the Department of Homeland Security for Fiscal Year 2019, and for Other Purposes,” which included yet *another appropriation of \$300 million* for the GLRI and GLWQA for fiscal year 2019.⁵⁶¹

In sum, these appropriations bills establish that the ongoing statutory authority for *USEPA* to continue its implementation of U.S. responsibilities under the GLWQA and the GLRI at the expense of

556. § 426(7)(A), 129 Stat. 2581.

557. See § 426, 129 Stat. at 2581 (amending FWPCA § 118(c)(7)(A)–(C) (33 U.S.C. 1268(c)(7)(B)(iii)–(iv))); see also § 426, 129 Stat. at 2583 (amending FWPCA § 118(c)(7)(G)).

558. § 426, 129 Stat. at 2582 (amending FWPCA § 118(c)(7)(C)(i)).

559. Water Infrastructure Improvements for the Nation Act of 2016, Pub. L. No. 114-322 § 5005, 130 Stat. 1628, 1889, 1890, 1892 (2016) (amending § 118(c)(7) of the Federal Water Pollution Control Act to add (C)(i)(I), and FWPCA § 118(c)(7)(J)).

560. § 5005(B)(3)–(4), 130 Stat. at 1889–90 (amending FWPCA § 118(c)(7)(B)(iii)–(iv)).

561. H.R. REP. NO. 116 at 85 (accompanying H.J. RES. 31).

landowners' constitutionally protected private property rights is contained in CWA § 118(c) (33 U.S.C. § 1268).⁵⁶²

C. The Great Lakes Commission

As previously discussed, the Great Lakes Commission (GLC) was established in 1955 pursuant to Article IV of the Great Lakes Basin Compact,⁵⁶³ and it has since essentially served as an international “talk-shop”⁵⁶⁴ without legal “bite.” For example, the GLC’s mission has been to render advice and assistance to its members by “fostering dialogue, developing consensus, facilitating collaboration and speaking with a unified voice.”⁵⁶⁵ The objective of the GLC’s mission has been the advancement of “collective interests and responsibilities to promote economic prosperity and environmental protection and to achieve the balanced and sustainable use of [the] Great Lakes–St. Lawrence River basin water resources.”⁵⁶⁶

Despite its limited role, the GLC (with a MDNR/MDEQ representative holding a GLC Board of Director’s seat) had managed, nevertheless, to obtain (not “earn”) approximately \$75 million of revenues from international (the International Joint Commission (IJC)), federal, and private grants and contracts and state contributions over the course of nine years (from 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, and 2018),⁵⁶⁷ averaging approximately \$8.3 million

562. See *Great Lakes Funding Authority*, EPA, <https://www.epa.gov/great-lakes-funding/great-lakes-funding-authority> [<https://perma.cc/NX5W-5BLR>] (last visited Oct. 30, 2019).

563. See *supra* Part III.

564. See *Talking Shop (also Talk Shop)*, LEXICO, https://www.lexico.com/en/definition/talking_shop [<https://perma.cc/LBC3-CFQS>] (last visited Oct. 30, 2019) (“A place or group regarded as a centre for unproductive talk rather than action.”); see also *Talking Shop*, THE FREE DICTIONARY, <https://idioms.thefreedictionary.com/talking-shop> [<https://perma.cc/58U2-JKL5>] (last visited Oct. 30, 2019) (“A group or organization that spends far more time, effort, and resources on discussing policy or possible actions than actually doing anything meaningful. Primarily heard in UK.”).

565. *About*, GREAT LAKES COMM’N, <https://www.glc.org/about/> [<https://perma.cc/XE4A-9QJU>] (last visited Oct. 30, 2019).

566. *Id.*

567. See GREAT LAKES COMM’N, *2018 Annual Report*, at 2, 5 (revealing as a GLC Board of Directors the Director of the MDNR Office of the Great Lakes, and \$11,863,960 of revenues obtained from the IJC, USDOC-NOAA, USACE, USDA-NRCS, USEPA, USFWS, USGS, MDEQ, and the State of Michigan); GREAT LAKES COMM’N, *2016 Annual Report*, at 2, 5 (revealing as a GLC Board of Directors the Director of the MDEQ Office of the Great Lakes, and \$11,516, 173 of revenues obtained from the IJC, USDOC-NOAA (various), USACE, USDA-NRCS, USEPA (various agencies), USFWS, USGS, MDEQ, and State of Michigan); GREAT LAKES

of unearned revenues per year. In addition, the GLC managed in 2018 to pass a resolution applauding, supporting, and calling for the continued federal government support of the various structures (i.e., instrumentalities) and programs discussed above in this Article.⁵⁶⁸ For example, the GLC resolution lauded the federal government's ongoing support for the GLRI since 2010 and the GLRI's success *inter alia* in having facilitated the prevention of more than 402,000 pounds of phosphorus from entering the Great Lakes and causing harmful algal blooms and the restoration or protection of 180,000 acres of habitat.⁵⁶⁹ The GLC resolution also supported another \$300 million of GLRI funding in Fiscal Year 2019 and the strengthening of agricultural conservation (actually preservation) programs to reduce nonpoint

COMM'N, *2015 Annual Report*, at 2, 5 (revealing as Chair of the GLC Board of Directors the Director of the MDEQ Office of the Great Lakes, and \$7,617,587 of revenues obtained from the IJC, USDOC-NOAA (various), USACE, USDA-NRCS, USEPA (various agencies), USFWS, USGS, MDEQ, and State of Michigan); GREAT LAKES COMM'N, *2013–2014 Annual Report*, at 2, 4–5 (2014) (revealing as a GLC Board of Directors the Director of the MDEQ Office of the Great Lakes, and \$7,282,946 of 2013 revenues and \$6,671,057 of 2014 revenues obtained *inter alia* from the IJC, American Recovery and Reinvestment Act, USDOC-NOAA (various), USACE, USDA-NRCS, USDOE-NREL, USEPA (various agencies), USGS, MDEQ, and State of Michigan); Great Lakes Comm'n, *2012 Annual Report*, at 2, 4–5 (revealing as a GLC Board of Directors the Director of the MDEQ Office of the Great Lakes, and \$9,433,001 of revenues obtained *inter alia* from the IJC, American Recovery and Reinvestment Act, USDOC-NOAA, USACE, USDA-NRCS, USDOE-NREL, USEPA (various agencies), USFWS and USGS, MDEQ, and State of Michigan); GREAT LAKES COMM'N, *2011 Annual Report*, at 2, 8–9 (revealing as a GLC Board of Directors the Director of the MDEQ Office of the Great Lakes, and \$9,496,735 of revenues obtained *inter alia* from the IJC, American Recovery and Reinvestment Act, the *Great Lakes Restoration Initiative*, DOC-NOAA, USACE, USDA-NRCS, USDOE, USEPA (various), USFWS, U.S. Geologic Survey (USGS), MDEQ, and State of Michigan); GREAT LAKES COMM'N, *2010 Annual Report*, at 2, 8–9 (revealing as a GLC Board of Directors the Director of the MDNR Office of the Great Lakes, and \$6,423,481 of revenues obtained *inter alia* from the IJC, *Great Lakes Restoration Initiative*, DOC-NOAA (various), USACE, USDA-NRCS, USDOE-NREL, USDOE, Energy Efficiency and Renewable Energy (EERE), USEPA (various agencies), USFWS, MDNR/MDEQ, and State of Michigan); GREAT LAKES COMM'N, *2009 Annual Report*, at 2, 8–9 (revealing as a GLC Board of Directors the Director of the MDNR Office of the Great Lakes, and \$4,366,344 of revenues obtained *inter alia* from the IJC, the American Recovery and Reinvestment Act, DOC-NOAA (various), USACE, USDA-NRCS, USDOE-NREL, USEPA (various agencies), USFWS, MDEQ, and State of Michigan).

568. See GREAT LAKES COMM'N, Semiannual Meeting Res., *An Agenda for Great Lakes Restoration and Economic Revitalization: Great Lakes Commission Federal Priorities for 2018*, at 1–2 (Mar. 7, 2018).

569. See *id.* at 1.

source runoff to Western Lake Erie, Saginaw Bay, and Green Bay.⁵⁷⁰ Furthermore, the GLC resolution called for the federal government to maintain the GLAB and to develop a new GLRI Action Plan.⁵⁷¹

In sum, it is clear, especially during the Obama administration, that Congress had funded and multiple U.S. federal executive branch agencies, including USEPA, had utilized the GLAB, GLRI, and GLC “structures”/“instrumentalities” in a mutually reinforcing manner to impose strict statutory and regulatory restrictions and enforcement regimes upon Michigan and other Great Lakes States landowners at the expense of their constitutionally protected private property rights, consistent with the European precautionary principle and ecosystem-based management legal nostrums.

VI. MICHIGAN’S NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT AND ITS CENTRAL ROLE IN STATE POLITICAL AND LEGAL ENVIRONMENTAL GOVERNANCE

To recall, it is the thesis of this Article that the wetlands (Part 303), inland lakes and streams (Part 301), floodplains (Part 31), and soil erosion and sedimentation control (Part 91) provisions of Michigan’s Natural Resources Environmental Protection Act (NREPA), as amended,⁵⁷² and implementing regulations,⁵⁷³ and the NREPA enforcement and monitoring practices of the MDEQ and the Michigan Department of Natural Resources (MDNR), have effectively been “Europeanized” at the expense of the constitutionally protected private property rights of Michigan’s hydroelectric dam owner/operators, farmers, and other landowners. The following section of this Article discusses both the political and legal dimensions of NREPA’s central role in state political and legal environmental governance.

570. See *id.* at 1–2.

571. See *id.* at 2.

572. See MICH. COMP. LAWS §§ 324.101, 324.30301 (regarding wetlands protection and restoration), 324.30101 (regarding maintenance of natural river flow), 324.3101 (regarding unobstructed floodplains), 324.9101 (regarding soil erosion and sedimentation control), as amended by 2018 Mich. Pub. Acts No. 631 (eff. March 29, 2019). It is this author’s professional opinion that these provisions, notwithstanding their amendment by P.A. 631, remain “Europeanized.” See discussion *infra*.

573. See MICH. ADMIN. CODE, ENV’T, GREAT LAKES AND ENERGY WATER RESOURCES DIV., PART 17, SOIL EROSION AND SEDIMENTATION CONTROL r. 323.1701–323.1714 (2017) (acting as a guidance resource rather than a restatement of the Michigan code).

A. Michigan Environmental Politics and Policies

1. *The Outgoing Snyder Administration*

On December 11, 2018, the Michigan House of Representatives “gave final approval to [HB 4205] limiting the ability of the state to set stricter rules than any federal standard, sending it to [former] Gov. Rick Snyder for consideration.”⁵⁷⁴ This common-sense bill was signed into law as Public Act No. 602, on December 28, 2018.⁵⁷⁵ Act 602, for example, amended MCL § 24.232 and MCL § 24.245.⁵⁷⁶

However, the problem with this new law is that it is “not retroactive, and would keep in place stricter-than-federal standards the state already had.”⁵⁷⁷ Nevertheless, it was still “met with heavy opposition from environmental groups and advocates, who see it limiting Michigan’s ability to set stricter-than-federal standards on important issues, including the emerging issue of contamination from per- and polyfluoroalkyl substances, known collectively as PFAS, which have been linked to health problems.”⁵⁷⁸ Unfortunately, this

574. Emily Lawler, *Bill Limiting Michigan’s Environmental Rulemaking Power Heads to Snyder*, MLIVE (Dec. 11, 2018), <https://www.mlive.com/news/2018/12/bill-limiting-michigans-environmental-rulemaking-power-heads-to-snyder.html> [<https://perma.cc/8AJ5-B3RY>].

575. See 2018 Mich. Pub. Acts No. 602; see also Memorandum from Hon. Rick Snyder, Gov., State of Mich., at 3053 (Dec. 28, 2018) (on file with 2018 Journal of the House).

576. See Mich. Pub. Acts No. 602, § 32(8) (amending MICH. COMP. LAWS § 24.232 (2011)) (“Except for an emergency rule promulgated under section 48, and subject to subsection (10), if the federal government has mandated that this state promulgate rules, an agency shall not adopt or promulgate a rule more stringent than the applicable federally mandated standard unless the director of the agency determines that there is a clear and convincing need to exceed the applicable federal standard.”); see also Mich. Pub. Acts No. 602, § 45(1)–(3) (amending MICH. COMP. LAWS § 24.245 (2016)) (“(1) Except as otherwise provided in this subsection, an agency shall electronically submit a proposed rule to the legislative service bureau for its formal certification . . . (2) Except as provided in subsection (6), after notice is given as provided in this act and before the agency proposing the rule has formally adopted the rule, the agency shall prepare an agency report containing a synopsis of the comments contained in the public record, a copy of the request for rulemaking, and the regulatory impact statement required under subsection (3) . . . (3) . . . The regulatory impact statement must contain all of the following information: . . . (b) If § 32(8) applies and the proposed rule is more stringent than the applicable federally mandated standard, a statement of the specific facts that establish the clear and convincing need to adopt the more stringent rule and an explanation of the exceptional circumstances that necessitate the more stringent standard.”).

577. Lawler, *supra* note 574.

578. *Id.*

new Michigan law will not likely improve the legal and regulatory environment for Michigan property owners subject to the sweeping provisions of NREPA that had been amended by Act 98 (2013) and the almost unlimited discretion exercised by MDEQ officials in implementing and enforcing NREPA.

NREPA Part 303 enables the State of Michigan to enact stricter-than-federal CWA wetlands protection standards. These NREPA provisions effectively focus on the placing of fill material in wetlands (i.e., “soil, rocks, sand, water of any kind, or any other material that displaces soil or water or reduces water retention potential”)⁵⁷⁹ located in and proximate to floodplains and their adjacent tributaries within a given watershed, especially those draining into one or more of the four Great Lakes bordering the Michigan peninsula. They include Lakes Erie, Huron, Michigan, and Superior, which are considered, in part, waters of the State,⁵⁸⁰ U.S. traditional navigable waters,⁵⁸¹ and international waters.⁵⁸²

In addition, former Michigan Governor Snyder signed into law SB 1211 as Act No. 631, on December 28, 2018.⁵⁸³ Media reports quoted the law’s sponsor, Michigan State Senator Tom Casperson, as saying that the “bill would protect landowners against overzealous ‘radicalism’ at the Department of Environmental Quality, which

579. MICH. COMP. LAWS § 324.30301(1)(d) (2019).

580. See § 324.3101(aa) (“‘Waters of the state’ mean groundwaters, lakes, rivers, and streams and all other watercourses and waters, including the Great Lakes, within the jurisdiction of this state.”); see also The Submerged Lands Act of 1986, Pub. L. No. 99-972, 67 Stat. 29 (Enacted Apr. 7, 1986) (defining the term “boundaries” as “includ[ing] the seaward boundaries of a State or its boundaries in the Gulf of Mexico or any of the Great Lakes as they existed at the time such State became a member of the Union, . . . but in no event shall the term ‘boundaries’ . . . be interpreted as extending from the coast line more than three geographical miles into the Atlantic Ocean or the Pacific Ocean, or more than three marine leagues into the Gulf of Mexico”); MICH. ADMIN. CODE r. 323.2203(p) (“‘Waters of the state’ [also] means . . . ‘[a]ll other water courses and bodies of water within the jurisdiction of the state, including wetlands as defined by part 303 of the act, wetlands protection, being [§§] 324.301 to 324.30323 of the Michigan Compiled Laws.’”).

581. See 33 C.F.R. § 329.4 (2010) (“Navigable waters of the United States are those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.”); see also EPA, JURISDICTIONAL DETERMINATION FORM INSTRUCTIONAL GUIDEBOOK app’x D (2007).

582. See Water Resources Development Act of 1986, Pub. Law. No. 99-662, 100 Stat 4082, 4230 (1986) (“[F]our of the Great Lakes are international waters and are defined as boundary waters in the Boundary Waters Treaty of 1909 between the United States and Canada . . .”).

583. 2018 Mich. Pub. Acts No. 631.

enforces Michigan's wetlands regulations."⁵⁸⁴ Casperson also stated that "[i]f we don't do something, we can kiss personal property rights goodbye. Because the government's going to tell us what we can and can't do no matter what."⁵⁸⁵

Act No. 631 amended MCL § 324.30301(1)(n), which defines a regulated "wetland" consistent with the federal definition of regulated wetlands contained within former Obama administration regulations that overbroadly defined the term "waters of the United States" (WOTUS).⁵⁸⁶ Pursuant to the Act 631 definition, a land or water feature will not be considered a regulated "wetland" unless it is a WOTUS under CWA § 502(7), is contiguous to the Great Lakes, Lake St. Clair, or an inland lake, pond, or stream, is more than five acres in size, harbors an endangered or threatened species, *or* is a rare and imperiled wetland.⁵⁸⁷ A wetland is not deemed contiguous to the Great Lakes, or an inland lake, pond, or stream, if "there is no direct physical contact and no surface water or interflowing groundwater connection to such a body of water."⁵⁸⁸

The MDEQ had greatly exaggerated how if Act 631 had been enacted following the Trump administration's proposed rule change that would recodify the pre-2015 WOTUS definition,⁵⁸⁹ it would have

584. Jim Malewitz, *Michigan House Panel Votes to Gut 'Radical' Wetlands Protections*, BRIDGE (Dec. 18, 2018), <https://www.bridgemi.com/michigan-environment-watch/michigan-house-panel-votes-gut-radical-wetlands-protections> [<https://perma.cc/CRE3-NVPX>].

585. *Id.*

586. MICH. COMP. LAWS § 324.30301(1)(n) (2019) ("Wetlands means a land or water feature, commonly referred to as a bog, swamp, or marsh, inundated or saturated by water at a frequency and duration sufficient to support, and that under normal circumstances does support, hydric soils and a predominance of wetland vegetation or aquatic life."); *see also* BRIDGE, S.B. 1211 (H-1), DEQ ANALYSIS – PART 1, at 2 (Dec. 13, 2018) ("The 2015 Obama administration 'Clean Water Rule' is currently in effect in Michigan.").

587. *See* § 324.30301(l) (defining a "rare and imperiled wetland" as "(i) Great Lakes marsh. (ii) Southern wet meadow. (iii) Inland salt marsh. (iv) Coastal plain marsh. (v) Interdunal wetland. (vi) Lakeplain wet prairie. (vii) Lakeplain wet-mesic prairie. (viii) Coastal fen. (ix) Wet-mesic prairie. (x) Wet prairie. (xi) Prairie fen (xii) Northern fen. (xiii) Patterned fen. (xiv) Poor fen. (xv) Muskeg. (xvi) Relict conifer swamp. (xvii) Southern floodplain forest.").

588. MICH. COMP. LAWS § 324.30321(4) (2019).

589. *See* Definition of "Waters of the United States" – Recodification of Pre-Existing Rules; Extension of Comment Period, 83 Fed. Reg. 32,227 (July 12, 2018) (to be codified at 33 C.F.R. pt. 328); Definition of "Waters of the United States" – Recodification of Pre-Existing Rules; Extension of Comment Period, 82 Fed. Reg. 39,712 (Aug. 22, 2017) (to be codified at 33 C.F.R. pt. 328); Definition of "Waters of

“remove[d] protection of” numerous types of wetlands, lakes, and streams currently protected under state law calibrated to the former Obama administration’s overbroad definition of WOTUS. According to MDEQ, the new law would allow the CWA § 404 permit-free filling and dredging of and constructing on non-WOTUS wetlands.⁵⁹⁰ These include wetlands not touching or inundated by the Great Lakes, wetlands not-continuously-connected to waterbodies, wetlands only physically connected to waterbodies vis-à-vis manmade connections (i.e., ditches), wetlands supporting plants or animals of identified regional importance (not endangered or threatened) and providing groundwater recharge, USDA-designated prior converted cropland irrespective of abandonment, non-WOTUS wetlands adjacent to artificially irrigated and flooded lakes and streams (i.e., Wixom Reservoir), and nonpermanent streams, lakes, or ponds and wetlands contiguous with them.⁵⁹¹

MDEQ estimated that “[i]f and when the new proposed Trump administration rule goes into effect in Michigan, approximately 3 million of the 6.5 million acres of wetland (approximately half) will no longer be protected under S.B. 1211.”⁵⁹² MDEQ estimated that even “[i]f the new proposed Trump administration rule does not go into effect in Michigan, approximately 380,000 wetlands, totaling 550,000 acres (about a ½ million acres) that are not greater than 5 acres in size and not contiguous to the Great Lakes are at risk under S.B. 1211.”⁵⁹³ For example, MDEQ estimated that “at least 5,000 wetlands, totaling approximately 10,000 acres” contiguous to impounds/reservoirs (inland lakes) would be at risk.⁵⁹⁴ MDEQ also opined that wetlands connected to waterbodies through a noncontinuous connection would be at risk, though specific estimations for such wetlands had not then been available.⁵⁹⁵ In effect, MDEQ had strenuously argued that the Trump administration’s implementation of its proposed “WOTUS” rule change would deprive Michigan of its ability to continue strict enforcement of NREPA Part 303 wetland protections in further diminishment of landowners’ constitutionally protected private property rights, consistent with the European precautionary principle

the United States” – Recodification of Pre-Existing Rules; Extension of Comment Period, 82 Fed. Reg. 34,899 (July 27, 2017).

590. See BRIDGE, *supra* note 586, at 1.

591. See *id.*

592. *Id.*

593. *Id.*

594. *Id.*

595. See *id.*

and ecosystem based management approach to Great Lakes environmental stewardship.⁵⁹⁶

2. *The Incoming Whitmer Administration*

On December 27, 2018, Michigan Governor-elect Gretchen Whitmer announced her selection of the next MDEQ Director, Ms. Liesl Eichler Clark.⁵⁹⁷ The related press release stated that Clark, “the co-founder and partner of 5 Lakes Energy, a policy consulting firm[,] . . . served as president of the Michigan Energy Innovation Business Council and as deputy director for energy programs at the Michigan Department of Energy Labor and Economic Growth.”⁵⁹⁸ Clark’s 5 Lakes Energy consulting firm specializes in rendering sustainability advisory services for corporate clients and in government sustainability policymaking.⁵⁹⁹ According to local media, Ms. Clark would replace Ms. Heidi Grether, who had been appointed to the post in mid-2016 by former Governor Snyder.⁶⁰⁰ Although Ms. Grether had been a former BP lobbyist, she nevertheless favored Governor-elect Whitmer’s executive order abolishing “industry-heavy” environmental permit oversight boards, much to the surprise of environmental and natural resource advocates.⁶⁰¹

596. *See id.*

597. *See* Kathleen Gray, *Whitmer Names 10 More Appointees to Cabinet Positions*, FREEP (Dec. 27, 2018), <https://www.freep.com/story/news/politics/2018/12/27/whitmer-key-cabinet-appointees/2422699002/> [<https://perma.cc/M2U3-7AQA>].

598. *Id.*

599. *See Our Team*, 5 LAKES ENERGY, <https://5lakesenergy.com/our-team/> [<https://perma.cc/W8GV-5764>] (last visited Oct. 30, 2019) (“Collectively and individually, 5 Lakes Energy team members are recognized experts in clean energy, sustainability, water policy and environmental regulations.”); *Facilitate – Community Engagement*, 5 LAKES ENERGY, <https://5lakesenergy.com/facilitate/> [<https://perma.cc/PXN2-T6PG>] (last visited Oct. 30, 2019) (“5 Lakes Energy has the expertise and experience to facilitate collaborative efforts that foster and galvanize community stakeholders to engage in adopting and accelerating sustainable practices. Building successful partnerships brings diverse resources and expertise to common purpose creating dynamic, sustained relationships that aggregate and leverage private, governmental, academic, and philanthropic and community assets.”).

600. *See* Jonathan Oosting, *Whitmer Picks Leaders to Help ‘Fix the Damn Roads’ and Fight Water Contamination*, THE DET. NEWS (Dec. 27, 2018), <https://www.detroitnews.com/story/news/local/michigan/2018/12/27/whitmer-deq-mdot-directors-michigan/2420360002/> [<https://perma.cc/7DUK-BQSA>].

601. Jay Greene, *Former State Environmental Director Surprises with Support for Whitmer in DEQ Fight*, CRAIN’S DET. BUS. (Feb. 7, 2019, 7:34 PM), <https://www.crainsdetroit.com/voices-jay-greene/former-state-environmental->

On February 4, 2019, newly elected Governor Whitmer signed an executive order overhauling the MDEQ and “charg[ing it] with environmental regulation, citing the need to more urgently protect the state’s water, bolster the response to climate change and direct more resources to communities disproportionately harmed by pollution and other environmental threats.”⁶⁰² Pursuant to Executive Order 2019-2, the Governor renamed the MDEQ as the Department of Environment, Great Lakes, and Energy (DEGLE or EGLE).⁶⁰³ She also created a new advisory body known as the Interagency Environmental Justice Response Team within DEGLE, consisting of members from different state agencies, the mission of which is to “act in an advisory capacity with the goal of assuring that all Michigan residents benefit from the same protections from *environmental hazards*.”⁶⁰⁴ This executive order also established an Office of the Great Lakes (OGL) within EGLE, which would assume the responsibilities of the prior OGL of the MDNR/MDEQ.⁶⁰⁵ MDNR’s OGL had previously been created under NREPA § 32903.⁶⁰⁶

director-surprises-support-whitmer-deq-fight [https://perma.cc/4GTH-Z9LT] (“The former 20-year BP oil and gas company executive took the stand that bucked the state Republican establishment and the Michigan Chamber of Commerce by writing a letter . . . to House legislators asking them not to support a resolution to overturn Whitmer’s executive order.”).

602. Jim Malewitz, *Gretchen Whitmer Reshapes Michigan Environmental Watchdog Agency*, BRIDGE (Feb. 4, 2019), <https://www.bridgemi.com/michigan-environment-watch/gretchen-whitmer-reshapes-michigan-environmental-watchdog-agency> [https://perma.cc/87VX-3RS3].

603. See Mich. Exec. Order No. 2019-02 § 1(a) (Feb. 4, 2019).

604. See *The American Environmental Justice Movement*, INTERNET ENCYCLOPEDIA OF PHILOSOPHY, <https://www.iep.utm.edu/enviro-j/> [https://perma.cc/MUB7-RCJ4] (last visited Oct. 30, 2019) (“Although environmentalism and the environmental justice movement are related, there is a difference. Environmentalism is concerned with humanity’s adverse impact upon the environment, but proponents are primarily concerned with the impact of an unhealthy environment thrust upon a collective body of life, entailing both human and non-human existence, including in some instances plant life. The efforts of the environmental justice movement differ from those of the environmentalist movement in that, at the heart of environmental injustice, there are issues of racism and socio-economic injustice.”); see also Mich. Exec. Order No. 2019-02 §§ 1(b)(1), (4) (Feb. 4, 2019) (emphasis added).

605. See *id.* Mich. Exec. Order No. 2019-02 § 1(e) (establishing that the DEGLE “shall exercise the authorities, powers, duties, functions, and responsibilities transferred from the former Office of the Great Lakes to the [DEGLE] under section 6(a) of this order”); see also § 6(a) (explaining that the new OGL would assume the responsibilities and authorities of the prior OGL of the MDNR, which was abolished).

606. See MICH. COMP. LAWS § 324.32903 (1994); see also Mich. Exec. Order 2011-1 § IV.C.2 (Jan. 4, 2011) (describing that MDNR’s OGL had been

Historically speaking, the Michigan Legislature had created the OGL in the Great Lakes Protection Act (Act 128) of 1985 that was repealed in 1995 following the enactment of NREPA.⁶⁰⁷ NREPA established the OGL as “the *lead* agency within state government for the development of policies, programs, and procedures to protect, enhance, and manage the Great Lakes.”⁶⁰⁸ OGL’s mission *inter alia* was

to implement an *ecosystem approach* to this state’s Great Lakes policies[,] . . . [p]rovide representation at the national level for this state’s Great Lakes interests[,] . . . [r]epresent th[e] state before Great Lakes policy development bodies such as the *international joint commission*[,] and] . . . [a]dvocate the interests of this state in actions, policies, and legislation affecting the Great Lakes proposed in other Great Lakes states, Canadian provinces, Great Lakes policy development bodies, and the federal government.⁶⁰⁹

Michigan’s Republican-dominated House quickly voted on February 6, 2019, to reject Executive Order 2019-2.⁶¹⁰ The Republicans apparently were angry that said Order had abolished the Environmental Permit Review Commission that the Legislature had just previously directed MDEQ to establish in June 2018 pursuant to Public Act No. 268.⁶¹¹ These politicians did not appear to have a problem with Whitmer restructuring the executive agencies or the impact such restructuring would have on the regulated community, so long as the “industry-dominated panels that would review environmental rules and permit decisions under a law passed by the GOP-controlled Legislature and signed by then-Gov. Rick Snyder just last year” would have survived.⁶¹² According to the Republicans, the issue was essentially one of separation of powers, and they accused Whitmer of eliminating the panels created by the legislature via

“subsequently transferred to the [MDEQ] by Executive Order 1995-18, MCL 324.99903, and transferred by Type I transfer to the [MDNR] by Executive Order by Executive Order 2009-45,” and then transferred back to MDEQ by Type 1 transfer per Executive Order No. 2011-1).

607. MICH. COMP. LAWS §§ 323.31–41 (1985).

608. § 324.32903 (emphasis added).

609. § 324.32903(a)–(c), (g) (emphasis added).

610. Paul Egan, *House Votes to Reject Whitmer’s Environmental Executive Order*, FREEP (Feb. 6, 2019), <https://www.freep.com/story/news/local/michigan/2019/02/06/gretchen-whitmer-executive-order-michigan-deq/2792427002/> [<https://perma.cc/2S3D-L4HR>].

611. See 2018 Mich. Pub. Acts No. 1377 § 1301; MICH. COMP. LAWS § 324.1313 (2019); see also Mich. Exec. Order No. 2019-02 § 4(a)(2); Egan, *supra* note 610.

612. Egan, *supra* note 610.

executive order as “an ‘abuse of power’ and an ‘after-the-fact veto.’”⁶¹³ What the legislature did not reveal, however, was that the environmental permit panel established by former Governor Snyder pursuant to Act 268 had the authority, in a contested case, to overrule a final adverse permit decision or order made by an administrative law judge supporting the MDEQ Director.⁶¹⁴

On February 14, 2019, Michigan’s Republican-controlled Senate also voted to reject Whitmer Executive Order 2019-2 on the same grounds.⁶¹⁵ Senate Majority Leader Mike Shirkey was quoted as saying that Whitmer’s order “went ‘a step too far’ by eliminating business-friendly panels the Legislature created last year to oversee environmental rules and permit applications.”⁶¹⁶ He also “invited Whitmer to draft another executive order to reorganize the environmental department” provided she clarified “‘the ‘undefined conceptual idea of environmental justice’ in the rejected version.”⁶¹⁷

3. *The Apparent Hypocrisy (and Expediency) of Michigan’s Republican Legislators*

Clearly, many of the members of Michigan’s Republican-led Legislature had previously been unconcerned that the last MDEQ Director was a former BP America, Inc., executive and lobbyist well-versed in the European notion of “sustainability/SD” and international regulatory law concepts such as the European precautionary principle.⁶¹⁸ Perhaps they, their legislative directors, and their chiefs of

613. Beth LeBlanc & Jonathan Oosting, *Republicans Fume as House Votes to Reject Whitmer’s Environmental Order*, THE DET. NEWS (Feb. 6, 2019), <https://www.detroitnews.com/story/news/local/michigan/2019/02/06/legislature-challenge-whitmer-order-nixed-environmental-panels/2787952002/> [<https://perma.cc/LG8U-99L3>].

614. See 2018 Mich. Pub. Acts No. 268 § 1317(1), (4), at 1381–82.

615. See Paul Egan & Kathleen Gray, *Legislature Votes to Reject Whitmer’s Environmental Executive Order*, FREEP (Feb. 14, 2019), <https://www.freep.com/story/news/local/michigan/2019/02/14/gretchen-whitmer-environmental-executive-order/2869421002/> [<https://perma.cc/R6X3-VL5G>].

616. Jonathan Oosting, *Republicans Reject Whitmer Environmental Order in Rare Move*, THE DET. NEWS (Feb. 14, 2019), <https://www.detroitnews.com/story/news/local/michigan/2019/02/14/michigan-senate-panel-votes-down-whitmer-environment/2868809002/> [<https://perma.cc/W3WW-H5L8>].

617. *Id.*

618. See Greene, *supra* note 601 (quoting Heidi Grether in effectively stating an oxymoron—a healthy and sustainable environment is attractive to business: “I call on Gov. Whitmer to work closely with our legislative leaders to make Michigan both a great place to raise our families in a healthy and sustainable environment and

staff had been unaware of the economic harm the European precautionary principle has long caused European and third country industries? Perhaps they, their legislative directors, and their chiefs of staff had been unaware that the European precautionary principle has slowly but steadily been rising to the level of customary international law in the face of an inconsistent, if not tepid, U.S. government-expressed protest/opposition to said nostrum in domestic and international fora?⁶¹⁹ Perhaps they, their legislative directors, and their chiefs of staff had been unaware of the enlargement of the Office of the Great Lakes (OGL) and of Michigan's ongoing and increased involvement in a number of Canada–U.S. water quality treaties that incorporate the European precautionary principle and ecosystem-based management, which Michigan must now implement and enforce in-state as a treaty signatory party and/or as a USEPA delegatee? Clearly, the failure of these moderate Republicans to publicly acknowledge these significant issues engendering the influence of international (European) environmental law upon Michigan domestic environmental law was *not* due to mere oversight.⁶²⁰

attractive to business development”). Such standards focus on the uncertainties surrounding possible environmental hazards rather than on known or knowable probable environmental risks and thereby reduce the scientific evidentiary threshold for the government to allege possible environmental harm and regulatory violations from direct causal evidence of harm to circumstantial weight-of-the-evidence, reverse the burden of proof (production and persuasion) from the government to show harm to economic actors to show no harm, and impose strict liability-based statutory penalties upon economic actors even in the absence of environmental harm as a deterrent “to ensure compliance.” See discussion *infra*.

619. See Lawrence A. Kogan, *EU Regulation, Standardization and the Precautionary Principle: The Art of Crafting a Three-Dimensional Trade Strategy That Ignores Sound Science*, NAT'L FOREIGN TRADE COUNCIL, INC. 57–61 (Aug. 2003).

620. Indeed, it is highly *unlikely* these officials had been unaware that Jon W. Allen, who *currently* serves as an At-Large Member of the International Joint Commission (IJC)'s Great Lakes Water Quality Board (which advises Canada and the United States regarding their compliance with the GLWQA), had *previously* served during the Snyder administration as the former director of the OGL and former Chairman of the Board of Directors of the Great Lakes Commission (GLC). See International Joint Commission Great Lakes Water Quality Board, Members, at <https://www.ijc.org/en/wqb/who/members>; State of Michigan, Former Governors, *Governor Names Jon Allen to Lead Michigan Office of Great Lakes* (Oct. 2, 2012), at https://www.michigan.gov/formergovernors/0,4584,7-212-96477_90815_57657-287370--,00.html. It also is highly unlikely these officials had been unaware that the OGL and GLC had been and remain significantly involved in the IJC. See Mary Ellen Geist, *New Leadership for the Great Lakes in 2018 – But 2017 Brought “A Massive Loss of Expertise and Passion”*, Great Lakes Now (Feb. 6, 2018), at <https://www.greatlakesnow.org/2018/02/new-leadership-for-the-great-lakes-in-2018;>

Arguably, the lack of concern expressed by many of Michigan's Republican legislators regarding these issues was inconsistent with the subject matter that revised §§ 1307(6)(a)–(d) of recently enacted PA 631 addresses. These newly revised provisions direct the MDEQ Director, in denying a permit application, to ensure that his/her decision “is based on specifically cited provisions of this Act or rules promulgated under [it],” “is based upon sufficient facts or data, which are recorded in the file,” “is the product of reliable scientific principles and methods,” “has applied the [scientific] principles and methods reliably to the facts,” and “[i]n the case of denial of an application for a permit under part 301 or 303” has provided “suggestions on changes to allow the permit to be approved,” which suggestions also arguably require the use of reliable scientific principles and methods.⁶²¹ While such terminology had been replicated from other NREPA provisions, it remained inapplicable to NREPA Parts 301 and 303-related permit decisions until MCL § 324.1307's 2019 revision.⁶²² Nevertheless, as the result of these requirements not having been defined in NREPA, members of the regulated community had previously been left to look to state caselaw⁶²³ and even federal caselaw for guidance concerning how Michigan state courts would define those terms for evidentiary purposes.⁶²⁴

see also Great Lakes Commission Annual Meeting (Oct. 2-3, 2018) (at Great Lakes Commission 2018 Semiannual Meeting Draft Meeting Minutes (March 6-7, 2018) at 1, 3; Great Lakes Commission Board of Directors Conference Call Minutes (Feb. 15, 2018), at 1; Great Lakes Commission Board of Directors In Person Meeting Minutes (June 5, 2018), at 1; Great Lakes Commission, Strategic Plan for the Great Lakes Commission 2017–2022 (adopted Jan. 2017), at 2, 8, 18). Furthermore, it is highly unlikely these officials had been unaware that the OGL, during the Snyder administration, had authored the “Michigan State of the Great Lakes” annual reports calling for internationally coordinated water resources management. *See, e.g.*, Michigan Office of the Great Lakes, Department of Environmental Quality, Michigan State of the Great Lakes 2013, at Inside Cover, 4–7, 17, 21–22; Michigan Office of the Great Lakes, Department of Natural Resources, Michigan *State of the Great Lakes 2018 Report*, at 1–3, 5.

621. MICH. COMP. LAWS § 324.1307(6)(a)–(d) (2019).

622. *See* § 324.35317(2)(a)–(d).

623. *See, e.g.*, Dep't of Env'tl. Quality v. Morley, No. 323019, slip op. at 3–5 (Mich. Ct. App. Dec. 15, 2015); Anglers of the Ausable, Inc. v. Dep't of Env'tl. Quality, No. 279301, slip op. at 18–19 (Mich. Ct. App. Mar. 31, 2009); Dep't of Env'tl. Quality v. Waterous Co., No. 272968, slip op. at 20–22 (Mich. Ct. App. Apr. 15, 2008).

624. Because Michigan Rule of Evidence 702(2)–(3) (used to evaluate the admissibility of expert testimony, *see* MICH. R. EVID. 702) had since July 2003 served as an analogue of Federal Rule of Evidence 702(c)–(d) (*see* FED. R. EVID. 702(c)–(d)), the regulated community also could have consulted federal law to define such

Did these Republican officials intentionally fail to grasp the magnitude of this apparent inconsistency?⁶²⁵ Did they intentionally fail to recognize the long divergent views held by the United States and the European Union governments (at least, until the Obama administration) toward the role of science in assessing and managing public health and environmental risks?⁶²⁶ Or were these failures

terminology. See *Amendment of Rule 702 of the Michigan Rules of Evidence*, ICLE (July 22, 2003), https://www.icle.org/contentfiles/milawnews/Rules/MRE/2001-29_07-22-03_or.html [<https://perma.cc/8U5H-V4B3>] (“Staff Comment: The July 22, 2003, amendment of MRE 702, effective January 1, 2004, conforms the Michigan rule to Rule 702 of the Federal Rules of Evidence, as amended effective December 1, 2000, except that the Michigan rule retains the words ‘the court determines that’ after the word ‘If’ at the outset of the rule. The new language requires trial judges to act as gatekeepers who must exclude unreliable expert testimony. See *Daubert v Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579; 113 S. Ct. 2786; 125 L Ed 2d 469 (1993), and *Kumho Tire Co, Ltd v Carmichael*, 526 U.S. 137; 119 S. Ct. 1167; 143 L Ed 2d 238 (1999). The retained words emphasize the centrality of the court’s gatekeeping role in excluding unproven expert theories and methodologies from jury consideration.”).

625. In other words, did they “sell out” the constitutionally protected private property rights of their constituents for personal pecuniary gain?

626. See Lawrence A. Kogan, *The Precautionary Principle and WTO Law: Divergent Views Toward the Role of Science in Assessing and Managing Risk*, SETON HALL J. OF DIPL. & INT’L REL. 77, 102–03 (2004) (“The prevailing view within Europe is to take a ‘better safe than sorry’ or precautionary approach to assessing and managing a growing number of possible but uncertain health and environmental hazards. According to this view, conventional scientific risk assessment should serve only a minimal function. There is a widespread belief that risk assessment, as an empirical process, reflects only the current state of limited human scientific knowledge—it cannot account for the uncertainties surrounding most human activities. As a result, it is argued that risk managers should focus instead on evaluating and addressing systemic hazards posed by products’ inherently dangerous characteristics categorized into risk profiles. Accordingly, where the possibility for significant irreversible harm is great, a lack of scientific certainty as to cause and effect, likelihood of occurrence or timing, or of actual evidence of harm, regulators should not be precluded from taking precautionary measures to prevent the harm from materializing in the first place. EU regulators argue that their aversion to risk is necessary to ensure a high level of health and environmental protection, even if it imposes a considerable legal, economic, and social burden on industry (foreign as well as domestic) and developing country governments. The prevailing U.S. regulatory view and practice, with certain limited exceptions, [was] to identify and evaluate health and environmental risks on a case-by-case basis, depending on their probability of occurrence and the likelihood that they may inflict serious actual harm. This is accomplished by means of an empirically driven and objective ‘science-based’ risk assessment that is performed with respect to a particular product or substance (not process). The risk assessment identifies the nature and significance of the particular risk, the magnitude and severity of known and/or uncertain potential harm, the degree and certainty of human exposure to such harm, and the vulnerability of the various

instead attributable to and motivated by political expediency and hypocrisy?

B. Michigan's Special Clean Water Act Domestic Status Protecting Wetlands

The primary source of authority for NREPA's sweeping wetlands (and consequently, inland streams, soil erosion and sedimentation control, and floodplain) provisions is the Michigan Legislature-passed Geomare-Anderson Wetlands Protection Act (PA 203) of 1979.⁶²⁷ As former MCL § 281.702(1)(a) and former MCL § 324.30302(1)(a) (NREPA, repealed by Act 98 of 2013) had previously stated the "[Michigan] legislature finds that: (a) [w]etland conservation is a matter of state concern since a wetland of 1 county may be affected by acts on a river, lake, stream, or wetland of other counties."⁶²⁸ In fact, as early as 1973, the State of Michigan had already secured authority from the USEPA to administer the Federal Water Pollution Control Act Section 304(h)(2) (i.e., CWA) State Program Guidelines governing the National Pollution Discharge Elimination System point-source pollution permitting regime.⁶²⁹

Michigan first obtained the legal authority to administer the federal CWA § 404(g) state-administered CWA § 404 wetland protection program (i.e., to regulate the discharge of dredged or fill material into "waters of the United States" within the state) on October 16, 1984, when the state executed a Memorandum of Agreement with

groups so exposed. Where there are profound uncertainties as to any of these factors, estimates and assumptions (safety factors) are employed that incorporate an appropriate degree of precaution. Additional margins of safety are also employed, if necessary, at the risk management stage through the selection of suitable frameworks. In most cases, health and environmental regulations are then subject to an economic cost/benefit analysis to determine whether the chosen approach maximizes net social, economic and environmental benefits.").

627. See *State and Federal Wetlands Regulations*, EGLE, https://www.michigan.gov/deq/0,4561,7-135-3313_3687-10801--,00.html [<https://perma.cc/S8AR-8NQR>] (last visited Oct. 30, 2019) (noting that the Geomare-Anderson Wetlands Protection Act (PA 203) of 1979 is now part of NREPA Part 303, formerly MICH. COMP. LAWS § 281.701 (1995)).

628. MICH. COMP. LAWS § 324.30302(1)(a) (1995) (*repealed by* Act 98 of 2013).

629. See Memorandum from EPA on Agreement Between the Mich. Water Res. Comm'n and EPA (Dec. 9, 1978) (one file with the EPA).

the USEPA.⁶³⁰ The previously approved Michigan wetlands protection regulatory program incorporated seven state environmental laws.⁶³¹ These included *inter alia* the Goemaere-Anderson Wetland Protection Act *plus* the State Administrative Procedures Act and Freedom of Information Act, the Michigan Environmental Protection Act, and two federal Memorandums of Agreement—one with USEPA and one with the U.S. Army Corps of Engineers (Corps).⁶³² Michigan was actually the first state, and it remains only one of two states (New Jersey is the other state), authorized by USEPA to administer federal CWA § 404 under CWA § 404(g).⁶³³ The CWA § 404 assumption program administered by USEPA vests the State of Michigan, rather than the Corps, with full state control over CWA § 404 dredge-and-fill permitting decisions.⁶³⁴ The Corps otherwise maintains jurisdiction and control over traditionally navigable waterways used to transport interstate or foreign commerce under § 10 of the Rivers and Harbors Act.⁶³⁵ “Where a state 404 Program is approved by the EPA, the Corps of Engineers suspends processing of 404 permits everywhere except Section 10 waters.”⁶³⁶

630. Michigan Department of Natural Resources Section 404 Permit Program Approval, Fed. Reg. 38,927, 38,947–38,948 (Oct. 2, 1984) (to be codified at 40 C.F.R. pt. 233).

631. *See id.* at 38,948.

632. *See id.*

633. *See* ASSOC. OF STATE WETLAND MANAGERS, EXPANDING THE STATES’ ROLE IN IMPLEMENTING CWA § 404 ASSUMPTION 1 (2010).

634. *See id.* In *Menominee Indian Tribe of Wisconsin v. Environmental Protection Agency and United States Army Corps of Engineers*, No. 19-1130 (7th Cir. 2020), the Seventh Circuit Court of Appeals recognized the sanctity of MDEQ’s decision to process and grant a third party’s revised CWA § 404 permit application to open and operate a mine in Michigan alongside the Menominee River in close proximity to Wisconsin’s northeast border, pursuant to Michigan’s assumption of CWA § 404 permitting (“waiver”) authority. In affirming the district court’s ruling, the Circuit Court held that the decision of the USEPA not to object to said revised permit application as set forth in an informational letter addressing the concerns of the Menominee Indian Tribe of Wisconsin constituted a decision committed to the discretion of the agency within the meaning of § 701 of the federal Administrative Procedure Act (5 U.S.C. § 701), rather than an appealable final agency action. *See* Slip op. at 2–3, 7–14. In a concurring opinion, Circuit Judge Hamilton recommended that the Tribes could still petition the USEPA to reassume federal permitting authority over that portion of the river if and when the State of Michigan seeks to amend NREPA, as had occurred in 2013 when a state official petitioned the USEPA to review the State’s decision to amend NREPA via Act 98. *See* Slip op. at 18–19; *see also infra* note 733.

635. *See id.* at 12–13.

636. *Id.* at 2, 5–6 (describing how New Jersey became the second state to assume the CWA § 404 program in 1994).

C. Michigan's Strict Wetland Regulations Entail Equally Stringent Inland Streams, Soil Erosion and Sedimentation Control, and Floodplain Regulations Consistent with Clean Water Act, Great Lakes Water Quality Agreement, and Western Lake Erie Basin Collaborative Agreement

It bears repeating that the Michigan legislature had previously found that wetland conservation is a matter of state concern “*since a wetland of 1 county may be affected by acts on a river, lake, stream, or wetland of other counties.*”⁶³⁷ The Michigan legislature’s holistic view of strict wetlands regulation has resulted in the imposition of equally strict inland streams, soil erosion and sedimentation control, and floodplain regulations. This is clearly reflected in Michigan’s 2016 IR, discussed above, which betrays the state’s implementation of these NREPA provisions consistent with the European precautionary principle and ecosystem-based management of Great Lake environmental stewardship.

1. *Wetlands—NREPA Part 303*⁶³⁸

The 2016 IR emphasized how Michigan had taken “direct legislative action to regulate and minimize wetland losses” to ensure that permits are required for *all* wetland alterations and to ensure that penalties are imposed for illegal wetland alterations.⁶³⁹ The 2016 IR also defined “regulated wetlands as those wetlands contiguous to the Great Lakes, . . . an inland lake, pond, river, or stream; and noncontiguous wetlands greater than five acres in size.”⁶⁴⁰ The 2016 IR identified that “[t]he state also has the authority to regulate any noncontiguous wetlands that are determined to be essential to the preservation of the natural resources of the state once the landowner has been notified.”⁶⁴¹ Furthermore, the 2016 IR stated that “Michigan’s regulatory program generally requires mitigation for all wetland impacts, although the MDEQ staff may waive this requirement for projects impacting less than one-third acre if no reasonably opportunity for mitigation exists.”⁶⁴²

637. § 324.30302(1)(a) (emphasis added).

638. See § 324.30301.

639. WATER QUALITY AND POLLUTION CONTROL IN MICHIGAN 2016 SECTIONS 303(D), 305(B), AND 314 INTEGRATED REPORT, *supra* note 435, at 24–25.

640. *Id.* at 25.

641. *Id.*

642. *Id.*

2. *Inland Lakes and Streams—NREPA Part 301*⁶⁴³

The 2016 IR noted how MDEQ's Inland Lakes and Streams Program "is responsible for the protection of the natural resources and the public trust waters of the inland lakes and streams of the state," including adjacent wetlands. In addition, it explained that said program oversees and regulates via permitting "activities including dredging, filling, constructing or placement of a structure on bottomlands [e.g., fishing platforms], constructing a marina, interfering with natural flow of water [e.g., installation of concrete retaining wall], and connecting a natural or artificially created waterway to an inland lake or stream"—e.g., constructed ditches via culverts.⁶⁴⁴ However, cantilevered fishing platforms, depending on where their footings are anchored, may or may not be deemed to be constructed on bottomlands. Part 301 also requires permits to be obtained prior to erecting cantilevered structures if they extend beyond the "bulkhead line."⁶⁴⁵ The bulkhead line is defined as "a line that is *established* pursuant to this part beyond which dredging, filling, or construction of any kind is not allowed without a permit."⁶⁴⁶ An exemption to this permitting obligation may, nevertheless, be secured by Federal Energy Regulatory Commission-licensed hydroelectric dam operators during the period of FERC-overseen temporary drawdowns of dam impoundments/reservoirs for purposes of conducting necessary dam repair work.⁶⁴⁷

643. § 324.30101.

644. *Overview*, EGLE, https://www.michigan.gov/egle/0,9429,7-135-3313_3681_28734-84615--,00.html [<https://perma.cc/VFM6-VBN4>] (last visited Oct. 30, 2019); *see also* § 324.30102(1)(a) (prohibiting the dredging or filling of bottomland without a permit); § 324.30102(1)(b) (prohibiting the construction, enlargement, extension, removal or placement of a structure on bottomland); § 324.30101(a) (defining the term "bottomland" as "the land area of an inland lake or stream that lies below the ordinary high water mark and that may or may not be covered by water").

645. § 324.30101(b).

646. *See id.* (emphasis added). Arguably, MDEQ must establish a "bulkhead line" in accordance with the proper process and procedure as if a permit application has been filed, thereby providing for public notice and hearings and for local requirements. *See* §§ 324.30108, 324.30104(1), 324.30105 (establishing requirements for a permit and discussing public notice).

647. *See* § 324.30103(1)(n) (amended by 2013 Mich. Pub. Acts No. 98). This exemption is subject to certain conditions. For example, the FERC licensee must have "consulted [the] state during the drawdown plan development and [the] state's concerns [must] have been addressed in the drawdown plan as FERC considers appropriate." § 324.30103(1)(n)(i). In addition, the FERC licensee must have ensured

3. Floodplains—NREPA Part 31⁶⁴⁸

NREPA Part 31 endeavors to keep development occurring within the 100-year floodplain reasonably safe from flooding and from increasing the potential for flood damage.⁶⁴⁹ It imposes a permitting obligation prior to undertaking *any* alteration (e.g., filling or grading) or *any* occupation of (e.g., storage in/on) the 100-year floodplain of a river, stream, or drain, no matter how temporarily (in terms of duration) the floodplain may remain occupied.⁶⁵⁰ The floodplain consists both of a floodway and a floodway fringe.⁶⁵¹ Floodways are the channels of rivers or streams and those portions of the floodplain adjoining the channel “which are reasonably required to carry and discharge the 100-year flood.”⁶⁵² They are the “high hazard areas of rapidly moving water during times of flood” that “carr[y] most of the flow during a flood event.”⁶⁵³ By comparison, floodway fringes are “area[s] of very slow moving water or ‘slack water.’”⁶⁵⁴

4. Soil Erosion and Sedimentation Control—NREPA Part 91⁶⁵⁵

Michigan’s 2015 Nonpoint Source Program indicated how NREPA’s soil erosion and sedimentation control permit program “is administered under the authority of [NREPA] Part 91,” which “provides for the control of erosion and prevention of off-site sedimentation *from earth change activities*.”⁶⁵⁶ It also noted how Part 91 “is administered and enforced by state, county, and municipal agencies with oversight by the MDEQ.”⁶⁵⁷ Soil erosion and sedimentation can serve to impair the water quality of Michigan water bodies such that it may fail to meet state water quality standards or fail to fulfill its designated use(s). In the event a Michigan water body fails

that “[a]dverse environmental impacts, including stream flow, aquatic resources, and timing, have been minimized to the extent practical.” § 324.30103(1)(n)(ii).

648. See §§ 324.3104, 324.3108.

649. See *Floodplains*, EGLE, https://www.michigan.gov/egle/0,9429,7-135-3313_3684_3725-11255--,00.html [<https://perma.cc/WGP3-GFSH>] (last visited Oct. 30, 2019).

650. See *id.*; see also § 324.3108(1) (explaining unlawful use of land).

651. See *Floodplains*, *supra* note 649.

652. *Id.*

653. *Id.*

654. *Id.*

655. See § 324.9101.

656. MICH. DEP’T OF ENVTL. QUALITY WATER RES. DIV., MICHIGAN’S NONPOINT SOURCE PROGRAM PLAN 83, 84 (2015) (emphasis added).

657. *Id.* at 84.

to attain “one or more designated uses” or fails to meet state water quality standards, it shall be “placed on Michigan’s nonattainment list and reported to the USEPA” as CWA § 303(d) requires.⁶⁵⁸ Thus, Part 91 requires “[a] landowner or designated agent who contracts for, allows, or engages in, an earth change” in the State of Michigan to secure a permit “before commencing an earth change which disturbs 1 or more acres of land or which is within 500 feet of the water’s edge of a lake or stream, unless exempted in R323.1705.”⁶⁵⁹

5. *Nonpoint Source Pollution—Stormwater Discharges of Pollutants (Including Soil, Rocks, Gravel)—NREPA Part 31*⁶⁶⁰

NREPA Part 31 governs the designated uses of Michigan’s surface waters, which “shall be protected for all of the following uses: agriculture, navigation, industrial water supply, fish consumption, warmwater fisheries, other aquatic life and wildlife, and partial body contact recreation.”⁶⁶¹ “In addition, all waters of the state are designated for, and shall be protected for, total body contact recreation from May 1 to October 31.”⁶⁶²

The objective of MDEQ’s nonpoint source program “is to protect high-quality waters and restore waters impaired by [NPS] pollution” by focusing on developing and implementing watershed management plans.⁶⁶³ Aside from nonpoint source pollutants such as nutrients (e.g., total phosphorous, nitrogen, etc.), the state’s NPS program also focuses on protecting state waters from excessive inundation of rock, sand, sediment, and dredged spoil,⁶⁶⁴ which the CWA includes within the definition of “pollutants.”⁶⁶⁵ According to the MDEQ, “nonpoint source (NPS) pollutants encompass a diverse range of substances varying from natural compounds, such as sediment, to commercially produced chemical pesticides.”⁶⁶⁶

658. *Id.* at 7.

659. MICH. ADMIN. CODE r. 323.17041(1) (1998).

660. *See* MICHIGAN’S NONPOINT SOURCE PROGRAM PLAN, *supra* note 656, at 28.

661. *Id.* at 7.

662. *Id.*

663. MICH. DEP’T OF ENVTL. QUALITY WATER RES. DIV., NONPOINT SOURCE PROGRAM: MEASURES OF SUCCESS 1 (2018).

664. *See id.* at 7, 8, 10.

665. Navigation and Navigable Waters, 33 U.S.C § 1362 (2012).

666. MICHIGAN’S NONPOINT SOURCE PROGRAM PLAN, *supra* note 656, at 1.

Thus, Part 31 requires any person to obtain a “notice of coverage . . . before the startup of construction for any storm water discharge from a site of construction activity disturbing 5 acres or more.”⁶⁶⁷ A “construction activity” is defined as

a man-made earth change or disturbance in the existing cover or topography of land for which a national permit is required pursuant to the provisions of 40 C.F.R. §122.26(a) (2000) and which is any of the following: (i) Five acres or more in size . . . ; (ii) One acre or more in size and defined as a small construction activity . . . ; (iii) Less than 1 acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb 1 acre or more. The term includes clearing, grading, and excavating activities.⁶⁶⁸

Part 31 also requires a deemed authorized holder of a national wastewater discharge permit to secure a “certified storm water operator” for purposes of administering soil erosion control measures, to cause a “certified storm water operator” to inspect the small construction activities “once per week[] and within 24 hours after every precipitation event that results in a discharge from the site, and [to] ensure that any needed corrective actions are carried out.”⁶⁶⁹ Part 31 nevertheless provides an exception to the notice of coverage filing requirement, but not to the certified stormwater operator and reporting obligations, for small construction activities—i.e., “1 to 5 acres of disturbed soil as defined in 40 C.F.R. §122.26(b)(15).”⁶⁷⁰

6. *The Interrelationship Between NREPA, CWA, GLWQA, and WBLECA*

The clearest explanation of the relationship between these NREPA provisions, CWA §§ 404, 303(d), 305(b), and 314, and the GLWQA and WBLECA is contained in the public comments MDEQ received during its development of the 2016 IR and in the MDEQ’s responses thereto.⁶⁷¹

For example, the Alliance for the Great Lakes/Michigan League of Conservation Voters had asked MDEQ why it had improperly avoided “making a listing decision on nutrients and algae impairment of western Lake Erie and Saginaw Bay” on the grounds that it lacked

667. MICH. ADMIN. CODE r. 323.2161(1)(b) (2006).

668. MICH. ADMIN. CODE r. 323.2102(k) (2005).

669. MICH. ADMIN. CODE r. 323.2190(2)(d)–(e) (2006).

670. MICH. ADMIN. CODE r. 323.2190(1) (2006).

671. See generally WATER QUALITY AND POLLUTION CONTROL IN MICHIGAN 2016 SECTIONS 303(D), 305(B), AND 314 INTEGRATED REPORT, *supra* note 435.

“sufficient information to determine whether designated uses are supported due to algae and nutrient pollution.”⁶⁷² “Michigan’s failure to make an impairment determination for these areas is improper since Michigan is required to evaluate and list all waters failing to meet any applicable water quality standard.”⁶⁷³

MDEQ responded that it, along with its sister agencies (MDNR and MDARD),

believe[d] the best approach for solving the issues in western Lake Erie is through the collaborative process established under Annex 4 of the Great Lakes Water Quality Agreement and the Western Basin of Lake Erie Collaborative Agreement, as they afford a holistic, multi-jurisdictional perspective that is outside the scope of a TMDL process.⁶⁷⁴

MDEQ also responded that it recognized that “a TMDL or other approach allowed by USEPA to address impaired waters under the CWA will be required unless designated uses are restored first.”⁶⁷⁵

Similarly, the Bay County Environmental Affairs and Community Development Director had commented that “as in all previous IR’s, the Saginaw Bay is listed as Eutrophic, having a high nutrient load, yet . . . there still is no TMDL proposed to control nutrient loading into the Saginaw River and Bay.”⁶⁷⁶ “The MDEQ needs to include Saginaw Bay and western Lake Erie on the § 303(d) list of waters that do not support their designated uses and require the development of Total Maximum Daily Loads.”⁶⁷⁷

MDEQ responded that “a eutrophic classification doesn’t necessarily imply impairment nor require a TMDL.”⁶⁷⁸ MDEQ also stated that recent Water Resources Division monitoring of

beaches along Michigan’s shoreline of Lake Erie, combined with extensive satellite imagery of cyanobacteria blooms in Lake Erie available from the NOAA supports the addition of an impairment determination based on algae bloom impacts to Michigan’s Lake Erie waters. Michigan is listing the Other Indigenous Aquatic Life and Wildlife designated use as Not Supporting (Category 5) for open and shoreline waters of the Michigan portion Lake Erie based on nuisance conditions related to nutrient expression.⁶⁷⁹

672. *Id.* at 106.

673. *Id.*

674. *Id.*

675. *Id.*

676. *Id.* at 109.

677. *Id.*

678. *Id.*

679. *Id.* at 109–10.

Nevertheless, MDEQ responded that it and its sister agencies believed that

the best approach for solving the issues in western Lake Erie is through the collaborative process established under Annex 4 of the Great Lakes Water Quality Agreement and the Western Basin of Lake Erie Collaborative Agreement as they afford a holistic, multi-jurisdictional perspective that is outside the scope of a TMDL process.⁶⁸⁰

MDEQ also similarly responded that it recognized that “a TMDL or other approach allowed by the USEPA to address impaired waters under the CWA will be required unless designated uses are restored first.”⁶⁸¹

7. NREPA Affords Landowners/Operators Little to No “Due Process of Law” in the Face of Unsubstantiated MDEQ Allegations

In 2004, the Michigan Attorney General determined that “the exercise of any governmental authority will be subject to constitutional protections provided by the United States and Michigan Constitutions against arbitrary or unreasonable government action and the taking of property without just compensation.”⁶⁸² The Michigan Attorney General issued this opinion approximately two years after the Michigan Court of Appeals issued its 2002 decision in *Genesco, Inc. v. Michigan Department of Environmental Quality*.⁶⁸³

In *Genesco*, the court held that “the process due under the state and federal constitutions is flexible and satisfied as long as fundamental fairness is observed.”⁶⁸⁴ According to the court,

680. *Id.* at 110.

681. *Id.* It should be noted that while elements of MDEQ’s draft 2019 NPS Plan had identified how it would implement Michigan’s obligations under GLWQA Annex 4, it failed to identify how it would implement Michigan’s obligations under GLWQA Annex 2.c requiring the development of the Lake Huron Lakewide Action and Management Plan (LAMP). EGLE, NONPOINT SOURCE PROGRAM 319 APPROVED WATERSHED PLANS (2019).

682. *See* Mich. Dep’t of Att’y Gen., Opinion Letter on Regulation of Waters of the State (Sept. 23, 2004) (citing *L.A. Darling Co. v. Water Res. Comm.*, 67 N.W.2d 890, 897 (Mich. 1955)) (determining that an order of the Water Resources Commission failed to provide adequate due process under the Due Process Clauses of the United States and Michigan Constitutions, U.S. CONST. amend. XIV and MICH. CONST. art. II, § 16).

683. *See generally* *Genesco, Inc. v. Mich. Dep’t of Env’tl. Quality*, 645 N.W.2d 319 (Mich. Ct. App. 2002).

684. *Id.* at 326 (citing *Dobrzanski v. Dobrzanski*, 528 N.W.2d 827 (Mich. Ct. App. 1995)).

[f]undamental fairness is determined by “consideration of the private interest at stake, the risk of an erroneous deprivation of such interest through the procedures used, the probable value of additional or substitute procedures, and the state or government interest, including the function involved and the fiscal or administrative burdens imposed by substitute procedures.”⁶⁸⁵

In 2005, the Michigan Court of Appeals reaffirmed that under Michigan law “[t]he fundamental requisite of due process is the opportunity to be heard”⁶⁸⁶ and that “the concept of due process is flexible, ‘the essence of which is to ensure fundamental fairness.’”⁶⁸⁷ The court held that “[p]rocedure in a particular case is constitutionally sufficient when there is notice of the nature of the proceedings and a meaningful opportunity to be heard by an impartial decision maker.”⁶⁸⁸

In *Genesco*, the court determined, at the pre-enforcement review stage, that MDEQ’s issuance of a letter seeking additional information (i.e., a multifaceted work plan that *inter alia* would allow for remedial investigation) would enable the agency to determine the acceptability of Genesco’s plan to remediate a portion of White Lake in the city of Whitehall, Michigan, where it had long operated a tannery and owned the bottomlands.⁶⁸⁹ The court determined that MDEQ’s failure to approve or deny Genesco’s remediation plan qualified as a “response activity” not constituting a final agency decision subject to judicial review by the circuit court under NREPA Parts 17 and 201.⁶⁹⁰ Consequently, the court held that the statute’s deferral of judicial review until after the MDEQ issued a final decision approving or denying Genesco’s remediation action plan did not deprive Genesco of due process of law.⁶⁹¹ The court reasoned that the “private property interest at stake [was] small (the right to keep contaminated sediment at the bottom of White Lake), the risk of erroneous deprivation [was] correspondingly small, [and] substitute administrative procedures [were] available for Genesco to provide input to the MDEQ before approval of a remedial action plan.”⁶⁹² In addition, the court reasoned

685. *Id.*

686. Dep’t of Env’tl. Quality v. Conely, LC No. 338497, 2018 Mich. App. LEXIS 2261, at *5 (Mich. Ct. App. May 10, 2018) (citing *Bullington v. Corbell*, 809 N.W.2d 657 (Mich. Ct. App. 2011)).

687. *Id.* (quoting *Reed v. Reed*, 693 N.W.2d 825 (Mich. Ct. App. 2011)).

688. *Id.*

689. *See Genesco, Inc. v. Michigan Dep’t of Env’tl. Quality*, 645 N.W.2d 319, 321, 326 (Mich. Ct. App. 2002).

690. *Id.* at 325–27.

691. *Id.* at 326.

692. *Id.*

that “judicial review [was available] after [MDEQ’s] response activity (albeit deferential and generally limited to the administrative record), and the interest of the government in promptly implementing a remedy for contaminated sites (the health, safety, and welfare of the public) [was] enormous.”⁶⁹³

MDEQ’s monitoring and enforcement practices relating to other NREPA provisions, however, namely the strict liability regimes of NREPA Parts 31, 91, 301, and 303,⁶⁹⁴ arguably deny accused violators of their legal and equitable right to due process of law, which entails the right to receive notice and a hearing enabling their development of an adequate defense to NREPA violation allegations, to which they are *constitutionally* entitled.⁶⁹⁵ One prime example of this is MDEQ’s standard practice of presenting little, if any, of its own completed scientific evidence meeting federal floodplain and/or wetlands scientific standards and of then requiring the regulated community to retain costly third-party experts at their expense to perform the comprehensive scientific evaluations needed to refute and defend themselves in court (without the benefit of a prior administrative hearing) against MDEQ’s broad allegations of *potential* NREPA Part 31 (floodplain) and 303 (wetlands) violations, which expert evidence it then ignores without reference to any “scientific” standard.⁶⁹⁶ This

693. *Id.*

694. *See* MICH. COMP. LAWS ANN. §§ 324.3104, 324.3108, 324.9101, 324.30101, 324.30301 (2019).

695. *See* Mathews v. Eldridge, 424 U.S. 319, 332 (1976) (“Procedural due process imposes constraints on governmental decisions which deprive individuals of ‘liberty’ or ‘property’ interests within the meaning of the Due Process clause of the Fifth or Fourteenth Amendment.”); Mullane v. Central Hanover Bank & Trust Co., 339 U.S. 306, 314 (1950) (procedural due process requires defendants receive “notice reasonably calculated to under all the circumstances to apprise interested parties of the pendency of the action and afford them an opportunity to present their objections”); Morgan v. United States, 304 U.S. 1, 18 (1938) (“The right to a hearing embraces not only the right to present evidence but also a reasonable opportunity to know the claims of the opposing party and to meet them. The right to submit argument implies that opportunity; otherwise the right may be but a barren one.”).

696. In *Michigan Department of Environmental Quality v. Boyce Hydro, LLC*, MDEQ had not performed *any* scientific delineation of the established floodplain in Gladwin County, Michigan, into which the Tittabawassee River tailrace area of the Edenville Dam Site had allegedly fallen to support its 2010 allegations that Boyce had committed NREPA Part 31 floodplain violations on that portion of the site. MDEQ had relied, instead, upon what is essentially an administrative presumption of potential violation, and thus harm, based on the broad statutory language of Part 31, which imposes a permitting requirement on “[a]ny filling, any grading, any occupation within the 100-year floodplain of a river. . . . That’s literally what it says, ‘occupation,’ which is generally construction of some kind.” *See* Transcript of Deposition of Joy

would appear to be explained by, at least, one senior MDEQ official's characterization of the terms "science" and "scientists" as postmodern colloquial terms.⁶⁹⁷

Brooks (environmental engineer and floodplain manager) at 30:4-33:23, Mich. Dep't of Env'tl. Quality v. Boyce Hydro, LLC (Sept. 25, 2018) (No. 16-8538-CE). "Temporary fills, temporary obstructions [also] are regulated under Part 31. . . . There are no timelines in . . . the floodplain portion of Part 31." *Id.* at 38:14-39:10. MDEQ also had relied upon an incomplete and then unpublished proposed FEMA floodplain map covering Gladwin County, Michigan, including the alleged floodplain violation area of the Edenville Dam site that Boyce itself had prepared under contract with Gladwin County. In fact, the Boyce-prepared FEMA Gladwin County floodplain map had only been *preliminarily* approved by FEMA during March 2015. *Id.* at 76:6-82:10. Similarly, MDEQ had not performed a completed scientific wetland identification and delineation of the presence, size, and scope of the wetlands meeting the federal standards of the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual to support its allegations that Boyce had committed NREPA Part 303 wetland violations on the eastern and western portions of the Edenville Dam Site. Rather, MDEQ had performed an ecological assessment describing the wetland functions presumed to have been lost. *See* Transcript of Deposition of Brian Rudolph, *supra* note 168, at 76:18-77:25. MDEQ had instead relied upon an administrative presumption of violation, and thus harm, based on the broad statutory language of Part 303, which "presume[s] the need for protection. [T]herefore, we have a criteria for which permits have to be issued, and if you act outside of that by placing fill in a wetland, you're in violation. . . . When you fill a wetland, regardless if it's with dirt, regardless if it's with granite, concrete, you place fill within a wetland, it is a regulated activity, it removes functions and values of the wetland, which is a negative impact." *See id.* at 75:6-23. In fact, MDEQ uses the data from wetland data sheets not to document the presence or non-presence of a wetland but rather to "demonstrate[] the condition at each location from which it's taken" "for the purpose of documenting the violation." *Id.* at 82:13-22; 83:11-13. MDEQ, in effect, compelled Boyce to incur the cost of hiring its own wetlands experts/consultant(s) to evaluate and report the wetland status of the disputed areas, which expert analysis MDEQ then proceeded to ignore. *Id.*

697. *See* Transcript of Deposition of Brian Rudolph, *supra* note 168. Furthermore, MDEQ administratively presumes that any human disturbance of a portion of a site in question empowers MDEQ to bypass the 3-Parameter wetlands standard (soil, vegetation and hydrology) the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual imposes in order to identify the presence or non-presence of wetlands in the "disturbed" area. Rather than first perform onsite analyses, MDEQ instead administratively presumes there exists an "atypical situation" justifying its undertaking of an (off-site) reference site comparison of pristine wetlands to identify the pre-existence and extent of a wetland area in the "disturbed" portion of a site. It proceeds in this manner, *even if the field representative can determine the presence of wetland soil, vegetation, and hydrology indicators showing the current presence of all 3 wetland parameters in that area of that site.* *Id.* at 83:2-6; 91:3-17; 92:15-93:14. This contravenes both the 1987 manual and its 2012 northeast regional supplement, which authorize this "atypical situation" procedure only where none of the 3 parameters exhibits any definitive wetland indicators. *Cf.* U.S. Army Corps of Engineers, *Wetlands Delineation Manual*, Wetlands Research

Another prime example of this is MDEQ's practice of seeking entry to private property based on tips or complaints (i.e., mere accusations) made anonymously by members of the public alleging that a potential NREPA violation has occurred on such property.⁶⁹⁸ According to the Enforcement Unit Supervisor of MDEQ's Water Resources Division, web-based anonymous tips or complaints also have served partially as the basis for applications the MDEQ enforcement unit has submitted to a magistrate to secure a *civil* administrative inspection warrant to enter private residential or business premises where the landowner or proprietor has refused to grant agency officials entry to their property.⁶⁹⁹ While there is no apparent requirement for MDEQ officials to undertake any minimal level of due diligence to substantiate the claims made in the anonymous tip or complaint or to disclose the sources supporting them, MDEQ investigators are likely to seek and secure publicly available materials, including web-based materials such as satellite imagery and photographs taken by members of the public, before seeking to secure such a warrant on putative probable cause grounds.⁷⁰⁰

Since August 22, 2015, the official web-based platform or "online document management system"⁷⁰¹ from which MDEQ officials have gathered anonymous tips and complaints has been the State's MiWaters website.⁷⁰² According to the District Supervisor for the MDEQ Water Resources Division of the Saginaw Bay District

Program Technical Report Y-87-1 (Jan. 1987), at 73-74; U.S. Army Corps of Engineers, *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (v.2.0) (Jan. 2012), at 114, 119, 128, 137. In none of these three instances did MDEQ provide Boyce with notice and the opportunity to be heard at a science-based hearing to refute the allegations of NREPA violations. Instead, MDEQ directly proceeded to initiate an enforcement action relying instead upon Michigan court deference to executive agency interpretation of NREPA and MDEQ NREPA-implementing regulations.

698. See, e.g., Transcript of Deposition of Joy Brooks, *supra* note 696, at 14:8-16:23.

699. See Transcript of Deposition of David Pingel at 89:5-8; 89:17; 89:25-90:13, Mich. Dep't of Env'tl. Quality v. Boyce Hydro, LLC (June 29, 2018) (No. 16-8538-CE), <https://nebula.wsimg.com/edc5b77c05c4d2b585f92cc2d47e8271?AccessKeyId=7F494AADE6AF42D36823&disposition=0&alloworigin=1>.

700. *Id.* at 90:14-91:3; 91:15-92:19; 93:16-25; 94:1-7; 95:4-8.

701. See Transcript of Deposition of Brian Rudolph, *supra* note 168, at 36:13-21; 58:1-6.

702. See *MiWaters – Water Resources Information and Forms*, EGLE, <https://miwaters.deq.state.mi.us/miwaters/external/home> [<https://perma.cc/ZC2W-9BJS>] (last visited Oct. 30, 2019).

Office, any member of the public can submit via the MiWaters website pollution incidents (“tips”) or general complaints, by name or anonymously,⁷⁰³ regarding any potential “unauthorized activities in wetlands, lakes, or streams”⁷⁰⁴ (e.g., “incidents regarding dredge and fill or other construction activities within wetlands, lakes or streams or releases of substances to the aquatic environment”⁷⁰⁵ or “incidents regarding releases of substances to the aquatic environment”⁷⁰⁶). Presumably, this includes anonymous reporting to MDEQ of soil erosion and stormwater runoff about which a member of the public has become aware or has actually witnessed.⁷⁰⁷

The general complaint form, for example, “requires minimal information regarding the incident or activity.”⁷⁰⁸ Thus, the amount of information provided in a given complaint varies widely.⁷⁰⁹ The first

703. See Transcript of Deposition of Brian Rudolph, *supra* note 168, at 37:19.

704. *MiWaters – Water Resources Information and Forms*, *supra* note 702.

705. See *Complaint/Incident Description, Revision 1, Form Version 1.10*, EGLE, <https://miwaters.deq.state.mi.us/nform/app/?allowAnonymous=true#/formversion/06eba8d6-01a2-4046-ad7a-34d304547bcc?FormTag=COMPLAINT>, and <https://miwaters.deq.state.mi.us/nform/app/?allowAnonymous=true#/submissionwizard/ab32f68f-ae10-4573-9e78-24e5dffad8f1/0>. (last visited Dec. 30, 2019).

706. See *Spill/Incident/Pollution, Revision 1, Form Version 2.5*, EGLE, https://miwaters.deq.state.mi.us/nform/app/?allowAnonymous=true#/formversion/3668646d-fe72-4a3a-935e032b6eda83a6?FormTag=SPILL_INCIDENT_POLLUTION_REPORT_COMPLAINT, and <https://miwaters.deq.state.mi.us/nform/app/?allowAnonymous=true#/submissionwizard/3141f686-1dca-4394-9943-3ce4f64af90c/0> (last visited Dec. 30, 2019).

707. See *MiWaters – Water Resources Information and Forms*, *supra* note 702. The regulations of the U.S. Army Corps of Engineers at the federal level similarly direct the Corps to encourage members of the public to report *suspected* violations without defining the phrase “suspected violation,” or the threshold of evidence required to establish a credible suspicion of violation. See 33 CFR § 326.3; see also U.S. Army Corps of Engineers Sacramento District Website, *Regulatory Enforcement – Reporting a Potential Unauthorized Activity*, <https://www.spk.usace.army.mil/Missions/Regulatory/Enforcement/> (stating how “[t]he Corps heavily relies on the public to report unauthorized activities [and encouraging members of the public, *if they suspect* an unauthorized activity has occurred or is still underway . . . by completing the following form: Report Potential Unauthorized Activity Sheet[, which] form can be emailed to regulatory-info@usace.army.mil, faxed or mailed to [their] local district office or to the Sacramento District”) (emphasis added). The Corps Sacramento District Office, however, does not undertake a comparison of the regulatory phrase “suspected violation” and the phrase “potential unauthorized activities” contained in the title to the form to which it refers members of the public.

708. See *id.*

709. See Transcript of Deposition of Brian Rudolph, *supra* note 168, at 37:22–38:3; 39:21, 40:15–19 (“I don’t think it’s a reasonable expectation to place on the

section of the Complaint Form⁷¹⁰ focuses on the description of the incident or activity.⁷¹¹ The next section focuses on the identity of the landowner and contractor who allegedly was responsible for the incident or activity.⁷¹² The third section focuses on the location of the waterbody and the property where the incident or activity is alleged to have occurred.⁷¹³ The fourth section focuses on the identity or anonymity (“confidentiality”) of the complainant and the complainant’s contact information.⁷¹⁴ The fifth section focuses on other information and related attachments the complainant provided, such as that relating to size and scope of the incident, the type of equipment used or observed, the apparent purpose of the activity, and any photographic or other evidence.⁷¹⁵ The sixth and seventh sections of the Complaint Form focus, respectively, on reviewing and confirming all of the information previously submitted and on certifying the complaint as complete.⁷¹⁶

Once a public complaint has been submitted/transmitted to MDEQ, “it will become part of the public record.”⁷¹⁷ MDEQ then reviews the complaint, and it is given an initial priority ranking of “no priority,” “low priority,” “moderate priority,” “high priority,” and “very high priority.” It is then assigned to a particular environmental quality analyst for investigation.⁷¹⁸ The environmental quality analyst undertakes an investigation pursuant to MDEQ’s enforcement manual guidelines, which may entail an inspection of the property where the incident or activity had been reported to have occurred. Prior to an inspection, the environmental quality analyst will conduct research and gather resources such as aerial photographs, wetland maps, etc.⁷¹⁹ If an incident of alleged violation has been identified as a “priority”

public to know what level of information they have to provide us. It’s our – the onus is on us to determine whether we’re going to respond and at what level we’re going to respond.”).

710. *Complaint/Incident Description, Revision 1, Version 1.10, supra* note 705 (suggesting based on the general inoperability of the hyperlinks provided for each separate page of the MiWaters Complaint Form that readers proceed from page to page rather than seek to open individual hyperlinks).

711. *Id.* at “Complaint/Incident Description.”

712. *Id.* at “Owner and Contractor.”

713. *Id.* at “Location.”

714. *Id.* at “Contact.”

715. *Id.* at “Other Information/Attachments.”

716. *Id.* at “Review” and “Certify & Submit.”

717. *Id.*

718. *See* Transcript of Deposition of Brian Rudolph, *supra* note 168, at 41:2–

25.

719. *See id.* at 42:6–23.

that needs a site inspection, MDEQ will seek to perform a site inspection.⁷²⁰

Where, however, the landowner refuses to grant MDEQ consent to enter the property upon being contacted, MDEQ is said to possess “delegated authority through the governor’s office to enter private property” pursuant to NREPA (Public Act 451) if it has a “reasonable suspicion that a violation has occurred.”⁷²¹ In other words, MDEQ officials do not require a civil administrative warrant to enter private property for purposes of conducting an inspection if they possess a “reasonable suspicion” that a NREPA Part 31, 91, 301 or 303 violation has occurred.⁷²² According to the District Supervisor for the MDEQ Water Resources Division of the Saginaw Bay District Office, a received complaint assigned a greater than “low priority” ranking will be considered to provide MDEQ with the basis to claim it possesses a “reasonable suspicion” that a statutory violation has occurred, thereby dispensing with the need for the agency to obtain a civil administrative warrant.⁷²³ In fact, the official testified that “*a complaint is reasonable suspicion of a violation,*” but due to lack of resources, MDEQ’s standing practice is to not inspect a site assigned a “low priority” or “no priority” ranking.⁷²⁴ Stated differently, once a member of the public has submitted a complaint—even anonymously—on the MiWaters website stating that a violation of state law (NREPA) has occurred or is occurring, MDEQ’s position is that it possesses a “reasonable suspicion” to assume that a violation has occurred, which enables it to enter private property without either the landowner’s consent or a *civil* administrative warrant.⁷²⁵

NREPA Parts 31,⁷²⁶ 91,⁷²⁷ 301,⁷²⁸ and 303,⁷²⁹ however, did not previously, and do not currently, expressly provide MDEQ with such authority. Much to the contrary, from 1995 to March 28, 2019, MCL § 324.30314(2) expressly conditioned MDEQ entry onto private premises “[u]pon *reasonable cause*” or “obtaining a search warrant” for purposes of conducting an inspection to evaluate whether a

720. *Id.* at 42:24–43:4.

721. *Id.* at 43:10–16; 45:19–23.

722. *See id.* at 44:16–25.

723. *See id.* at 44:2–4; 44:21–25.

724. *Id.* at 46:4–12; 46:20–21; 47:8–11.

725. *See id.* at 48:8–17; 49:20–23.

726. *See* MICH. COMP. LAWS §§ 324.3104, 324.3108 (2019).

727. *See* § 324.9101.

728. *See* § 324.30101.

729. *See* § 324.30301.

NREPA Part 303 violation has/had occurred, as defined in MCL § 324.30304.⁷³⁰ In fact, the Michigan Court of Appeals held, as recently as 2015 in *Groninger v. Department of Environmental Quality*, that under NREPA's Wetlands Protection Act (NREPA Part 303), MCL § 324.30314(2) provides that the MDEQ "may enter [private] premises [only] upon either *reasonable cause* or by obtaining a search warrant."⁷³¹

Enacting section 2 of Michigan Public Act (PA) 98, effective July 2, 2013, was believed to have repealed NREPA Part 303, including MCL § 324.30314 and its "reasonable cause" standard.⁷³² This repeal, however, would not become effective until "160 days after the effective date, as published in the federal register, or an order by the administrator of the . . . environmental protection agency under 40 CFR 233.53(c)(8)(vi) withdrawing approval of the state program under 33 USC 1344(g) and (h)."⁷³³ On December 13, 2016, at the close of the Obama administration, a USEPA Region 5 notice appeared in the federal register informing the public that USEPA had approved most of Michigan's Clean Water Act Section 404 Permitting Program Revisions that had "resulted from the enactment of Michigan Public Act 98."⁷³⁴ MCL § 324.30314 did not appear on either of the lists USEPA identified as containing provisions of PA 98 found to be consistent or inconsistent with the requirements of federal CWA

730. See § 324.30314(2).

731. 2015 WL 404753, at *2-*3 (Mich. Ct. App. 2015) (emphasis added).

732. See 2013 Mich. Pub. Acts No. 98.

733. 2013 Mich. Pub. Acts No. 34, at 15. In 2013, MDEQ Water Resources Division Chief, William Creal, had requested USEPA review of NREPA Act 98 amendments/revisions to ensure they did not alter Michigan's ability to administer the USEPA CWA § 404 Program. See Letter from William Creal, Chief, Michigan Dep't of Env't Quality Water Res. Dep't, to Tinka Hyde, Director, EPA (July 5, 2013) (on file with the Michigan Department of Environmental Quality). In 2016, USEPA's Chicago Regional Office wrote to MDEQ Water Resources Division Chief, Teresa Seidel informing her of USEPA's completion of its review of Michigan's NREPA Act 98 revisions. See Letter from Christopher Korleski, Director, EPA, to Teresa Seidel, Chief, Michigan Dep't of Env't'l Quality Water Res. Div. (Dec. 19, 2016) (on file with the Michigan Department of Environmental Quality). The EPA letter to MDEQ WRD noted how USEPA had considered the comments former Michigan AG Schuette had provided in response to USEPA's 2014 correspondence seeking the Michigan Attorney General's interpretation of four NREPA Act 98 revisions. See Letter from Robert Reichel, First Assistant, Env'tl., Nat. Res., and Agriculture Div., to Tinker Hyde, Director, EPA (May 27, 2015) (on file with the Michigan Department of Environmental Quality).

734. Receipt of Information Under the Toxic Substances Control Act, 81 Fed. Reg. 89, 930-33.

Section 404.⁷³⁵ USEPA, in other words, had not withdrawn approval of Michigan's CWA 404 state program in 2016, and thus MCL § 324.30314 had *not* effectively been repealed. Consequently, the *reasonable cause* requirement of MCL § 324.30314(2) had continued to apply. Therefore, contrary to the assertions of MDEQ-Water Resources Division Bay City Office Supervisor,⁷³⁶ it is arguably illegal for MDEQ officials to enter onto private land to conduct an inspection where there is only a "*reasonable suspicion*" that a NREPA Part 31, 91, 301, or 303 violation has occurred.

This conclusion was confirmed when MCL § 324.30314(2) was subsequently revised prior to the close of the Snyder administration during late 2018 via PA 631.⁷³⁷ These revisions were intended to clarify the conditions under which MDEQ "may enter on, upon, or through" private premises.⁷³⁸ Revised MCL § 324.30314(2)(a)–(c) authorizes MDEQ entry upon private premises on which a NREPA Part 303 violation or NREPA Part 303 permit information is located *only* when (1) a search warrant, an administrative warrant issued by the MDEQ Director, or the consent of the person who owns or controls the premises is obtained; (2) an imminent threat to the public health or environment is posed; or (3) upon *reasonable cause* if the wetland is a "water of the United States" as defined in CWA § 502(7).⁷³⁹

Clearly, the "reasonable cause" and "reasonable suspicion" standards are substantively distinct standards under Michigan law. Michigan law, consistent with other states' laws outside the sixth federal circuit, has long equated the "reasonable cause standard" for an arrest without a warrant with the "probable cause" standard for a warrantless arrest, to mean "as such trustworthy information as would warrant a person of reasonable caution to believe that a person was guilty of the commission of a crime."⁷⁴⁰

735. See generally EPA, SUPPORTING DOCUMENT FOR EPA DECISION TO APPROVE/DENY REVISIONS TO MICHIGAN'S CWA SECTION 404 PROGRAM RESULTING FROM ENACTMENT OF MICHIGAN PUBLIC ACT 98 (2016) (confirming this conclusion with supporting USEPA documentation).

736. See Transcript of Deposition of Brian Rudolph, *supra* note 168, at 41:2–25.

737. See MICH. COMP. LAWS § 324.30314(2)(a)–(c) (2019).

738. § 324.30314(2).

739. *Id.*

740. Mich. Dep't of Attorney Gen., Opinion Letter (May 21, 1985) (citing *People v. Ward*, 226 Mich. 45, 50 (1924)) ("While the Legislature has not defined the term 'reasonable cause' in MCL 764.15a; MSA 28.874(1), it is noted that 'probable cause' for a warrantless arrest means any facts which would induce a fair-minded person of average intelligence to believe that the suspected person has committed a

There is only one NREPA provision authorizing MDNR (and likely, MDEQ) officials to enter upon private premises for inspection purposes based on a *reasonable suspicion*—MCL § 324.80166(2). It authorizes peace officers to stop and inspect a private vessel, even one that displays the required state safety decal, where the peace officer has a *reasonable suspicion* that the vessel or the vessel's operator *is in violation of marine law or is otherwise engaged in criminal activity*.⁷⁴¹ Conservation officers appointed by the MDNR and trained and certified pursuant to the Michigan law enforcement officers training council act of 1965 are considered “peace officers” for such purposes, “and except as otherwise provided by law, are vested with the powers, privileges, prerogatives, and immunities conferred upon peace officers as provided in this act.”⁷⁴²

Apparently, MDEQ has strayed from the statutory text and “unofficially” incorporated Principle 7 of the United Nations Global Compact within its NREPA enforcement practices. U.N. Global Compact Principle 7 strictly interprets and implements the precautionary approach contained in Principle 15 of the 1992 U.N. Rio Declaration as if it were the European continental civil law

crime.”). It has also been held that “reasonable cause” for an arrest without a warrant is equated with “probable cause” and means such trustworthy information as would warrant a person of reasonable caution to believe that a person was guilty of the commission of a crime. *See, e.g.,* *People v. Lombardi*, 18 A.D.2d 177, 180 (N.Y. App. Div. 1963); *Greene v. Brown*, 535 F. Supp. 1096, 1100 (E.D.N.Y. 1982). The terms “reasonable cause” and “probable cause” to make a warrantless arrest have been held to be synonymous. *See, e.g.,* *State v. Merrill*, 274 N.W.2d 99, 108 (Minn. 1978); *State v. Linkletter*, 345 So.2d 452, 455 (La. 1977); *State v. Klevgaard*, 306 N.W.2d 185, 190 (N.D. 1981); *see also* STATE OF MICHIGAN, MODEL POLICY – THE LAW ENFORCEMENT RESPONSE TO DOMESTIC VIOLENCE 15 (2009) (“Reasonable cause is defined in Michigan law as synonymous with probable cause. The probable cause standard applied to domestic violence crimes is no different from the standard applied to all other crimes. Probable cause means any facts and circumstances that would cause a fair-minded person of average intelligence to believe that the suspect has committed or is committing a crime.”); *cf.* *People v. Bloyd*, 331 N.W.2d 447, 445 (1982) (holding that reasonable cause is something less than probable cause but substantially more than a reasonable suspicion).

741. *See* MICH. COMP. LAWS § 324.80166(2) (1994) (“(2) A peace officer shall not stop and inspect a vessel bearing the decal described in section 80166a or an equivalent decal issued by or on behalf of another state during the period the decal remains in effect unless that peace officer has a *reasonable suspicion* that the vessel or the vessel's operator is in violation of a marine law or is otherwise engaged in criminal activity.”) (emphasis added).

742. *See* MICH. COMP. LAWS § 324.1501 (1995); *see also* § 324.1601 (“The department and conservation officers appointed by the department are peace officers vested with all the powers, privileges, prerogatives, and immunities conferred upon peace officers by the general laws of this state.”).

precautionary principle. Principle 7 also requires that “[w]hen there is *reasonable suspicion of harm*, decision-makers need to apply precaution and consider the degree of uncertainty that appears from scientific evaluation.”⁷⁴³

The U.N. Global Compact represents itself as “a voluntary initiative based on CEO commitments to implement universal sustainability principles and to take steps to support U.N. goals.”⁷⁴⁴ “The multi-year strategy of the U.N. Global Compact is to drive business awareness and action in support of achieving Sustainable Development Goals by 2030.”⁷⁴⁵ However, a company’s voluntary nonfinancial reporting of company sustainable development/environment-related initiatives can have U.S. legal financial reporting ramifications.⁷⁴⁶

MDEQ’s “unofficial” incorporation of the European precautionary principle, a central tenet of European continental civil law and of international sustainable development law,⁷⁴⁷ within its enforcement of the permitting regimes of NREPA Parts 31, 91, 301 and 303 is, therefore, tantamount to incorporating into Michigan environmental law enforcement a critical element or facet of Europe’s “preventive justice” system.⁷⁴⁸ A key distinction between the

743. *The Ten Principles of the U.N. Global Compact, Principle Seven: Environment*, U.N. GLOBAL COMPACT, <https://www.unglobalcompact.org/what-is-gc/mission/principles/principle-7> [<https://perma.cc/399A-2TFS>] (last visited Oct. 30, 2019) (emphasis added).

744. *About the U.N. Global Compact*, U.N. GLOBAL COMPACT, <https://www.unglobalcompact.org/about> [<https://perma.cc/D3SU-L3DS>] (last visited Oct. 30, 2019).

745. *Making Global Goals Local Business*, U.N. GLOBAL COMPACT, <https://www.unglobalcompact.org/sdgs> [<https://perma.cc/R2L4-A488>] (last visited Oct. 30, 2019).

746. See Kogan, *Exporting Precaution*, *supra* note 90, at 75–81, 92–96.

747. See European Commission, *Environment—Sustainable Development*, at <https://ec.europa.eu/environment/sustainable-development>; Commission of the European Communities, Communication from the Commission, *A Sustainable Europe for a Better World: A European Union Strategy for Sustainable Development (Commission’s Proposal to the Gothenburg European Council)*, COM(2001) 264 final (5/15/01), at 6; Commission of the European Communities, Communication from the Commission to the Council and the European Parliament, *Draft Declaration on Guiding Principles for Sustainable Development*, COM(2005) 218 final (5/25/05), at 6.

748. Joselyn Stacey, *Preventive Justice, the Precautionary Principle and the Rule of Law*, in *REGULATING PREVENTIVE JUSTICE: PRINCIPLE, POLICY AND PARADOX* pt. I.2 (Tamara Tulich et al. eds., 2017) (“Sustainable development, an emerging and complex body of international law, has a significant preventive component. It captures the idea that the present generation has an obligation to future generations not to push

European continental civil law and the Anglo-American common law systems is their source of law. Civil law systems abide by codes and statutes “designed to cover all eventualities.”⁷⁴⁹ Civil law judges have a limited role of applying the law to the matter in dispute because “[p]ast judgments are no more than loose guides.”⁷⁵⁰ Civil law system judges thus tend to act more as investigators (i.e., fact finders). By contrast, the common law makes “extensive use of statutes” and regards “judicial cases . . . as the most important source of law.”⁷⁵¹ This vests common law judges, who act as independent arbiters, with “an active role in developing rules.”⁷⁵² Common law courts also “abide by precedents set by higher courts examining the same issue” to ensure consistency.⁷⁵³

A further critical distinction between the European continental civil law and Anglo-American common law systems is the civil law principle of “preventive justice.” It has been defined in the criminal context as

[t]he system of measures taken by government with reference to the direct prevention of crime. It generally consists in obliging those persons whom there is probable ground to suspect of future behavior to give full assurance to the public that such offense as is apprehended shall not happen, by finding pledges or securities to keep the peace, or for their good behavior.⁷⁵⁴

The principle of “preventive justice” also has been defined more generally as

[t]he involvement of a state office or authority occur[ring] preventively, meaning as early as possible. Thus, important legal acts can be phrased unambiguously and to the best interest of the citizens. For this reason,

the Earth’s ecological capabilities to their limits. . . . [T]he precautionary principle . . . posits that a lack of scientific certainty should not pose a barrier to state action in the face of serious or irreversible threats to the environment. Despite its largely preventive orientation, environmental law has, with one exception, remained distinct from the burgeoning field of preventive justice. The exception is the precautionary principle . . .”).

749. S.B., *What Is the Difference Between Common and Civil Law?*, THE ECONOMIST (July 17, 2013), <https://www.economist.com/the-economist-explains/2013/07/16/what-is-the-difference-between-common-and-civil-law> [https://perma.cc/22C8-L88X].

750. *Id.*

751. *Id.*

752. *Id.*

753. *Id.*

754. *Preventative Justice*, THE LAW DICTIONARY, <https://thelawdictionary.org/preventive-justice/> [https://perma.cc/V49K-77NL] (last visited Oct. 30, 2019).

subsequent legal disputes are avoided [and t]he courts competent for litigious disputes ('litigious jurisdiction') are relieved.⁷⁵⁵

According to a 2008 European Parliament study, “[i]n contrast to the Anglo-American and Scandinavian legal systems, the state does not just become involved in deciding legal disputes *ex post* (‘contentious jurisdiction’) . . . Instead, it provides for a preventive legal control through authentication by authentication authorities . . . for important transactions with a particular economic . . . significance for the public interest”⁷⁵⁶

D. Michigan Wetland, Inland Lakes and Streams, Soil Erosion and Sedimentation Control, Nonpoint Source Pollution, and Fisheries Policies Support MDEQ/MDNR Dam Removal Projects to Improve Water Quality and Restore Habitat

The dam removal/river restoration movement promoted by overzealous state and federal regulatory agencies and government-funded environmental and wildlife nonprofit extremist groups is a national phenomenon that has persisted for decades.⁷⁵⁷ As discussed

755. *Definition*, PREVENTIVE JUSTICE EUR., <http://www.prejus.eu/definition/> [https://perma.cc/5XDK-RQYQ] (last visited Oct. 30, 2019).

756. See Council of the Notariats of the E.U., *Comparative Study on Authentic Instruments National Provisions of Private Law—Circulation, Mutual Recognition and Enforcement, Possible Legislative Initiative by the European Union UK, FR, DE, PL, RO, SW*, in EUROPEAN PARLIAMENT’S COMMITTEE ON LEGAL AFFAIRS § 3.1 (2008); see also § 1.4.1; §§ 2.1.5, 2.2.1; § 1; § 3.3 (“The core function of authenticating instruments is linked to the fundamental concept of public pre-transaction control of the legality and the validity of transactions of particular significance.”); cf. Lawrence A. Kogan, *Effort to Expand ‘Authentic Acts’ in Europe Imperils Economic Freedom* (Wash. Legal Found. Vol. 24, Legal Backgrounder No. 6, 2009), <https://nebula.wsimg.com/ad9f8d629e2219620966232a3ef1c013?AccessKeyId=39A2DC689E4CA87C906D&disposition=0&alloworigin=1>; Lawrence A. Kogan, *The Creeping ‘Authenticity’ of Europe’s Intrusive Civil Law System*, INST. FOR TRADE, STANDARDS AND SUSTAINABLE DEV. (2009), <https://nebula.wsimg.com/bcb1adacf17baeдеб2d200cafc85b20?AccessKeyId=39A2DC689E4CA87C906D&disposition=0&alloworigin=1>.

757. See, e.g., Jessie Thomas-Blate, *Dam Removal in 2018 – Another Successful Year of Freeing Rivers*, AM. RIVERS (Feb. 20, 2019), <https://www.americanrivers.org/2019/02/dam-removal-in-2018-another-successful-year-of-freeing-rivers/> [https://perma.cc/PY9N-ZLLW] (setting forth an annual list identifying how “82 dams and more than 1,230 miles of river were restored through dam removal in 2018”); see also AM. RIVERS, 86 DAMS REMOVED TO RESTORE RIVERS IN 2017 (2018); Jessie Thomas-Blate, *Celebrating a Great Year for Dam Removal in 2016*, AM. RIVERS (Feb. 16, 2017), <https://www.americanrivers.org/2017/02/celebrating-great-year-dam-removal-2016/> [https://perma.cc/PN4C-LEWA] (setting

below, MDNR/MDEQ has participated in this movement for, at least, the past fifteen years. This has severely hampered Boyce Hydro Power LLC's ability, since 2010, to operate its four Tittabawassee River dams profitably at their peak capacity, and it has placed Boyce's status as a NREPA-compliant FERC licensee in potential jeopardy.

The Michigan Department of Natural Resources (MDNR) Fisheries Division webpage entitled "Dams—Dam Management/Dam Removal Information" states that dams can have positive or negative impacts on natural resources and that when dams are beyond their design life a decision must be made to remove or rebuild a particular dam depending on specific criteria for each situation.⁷⁵⁸ As early as 2004, MDNR/MDEQ released dam removal guidelines for owners,⁷⁵⁹ which identified three driving forces behind dam removal decisions: (1) maintenance costs greater than benefits derived; (2) public safety and liability concerns; and (3) greater potential fisheries, water quality, and recreational use improvements resulting from removal.⁷⁶⁰ These guidelines were subsequently rearticulated in 2005 as an unofficial "policy" of the MDNR Fisheries Division.⁷⁶¹ Dam removal would be called for if the dam serves little or no purpose and it can be reasonably expected that the dam will likely cause significant damage to public health, safety, welfare, property, natural resources, or the public trust in natural resources.⁷⁶²

Since then, the MDNR Fisheries Division has elevated this unofficial policy to a component of its official five-year plan for managing aquatic resources.⁷⁶³ For example, in its five-year strategic plan for 2013–2017, MDNR Fisheries Division recognized "the need for increased efforts in the short-term focused on . . . dam removal

forth an annual list identifying how "[i]n 2016, 72 dams were removed across 21 states").

758. See MICH. DEP'T OF NAT. RES., *Dam Management*, https://www.michigan.gov/dnr/0,4570,7-350-79136_79236_80249---,00.html [<https://perma.cc/NXX9-C8P2>] (last visited Oct. 30, 2019).

759. See generally MICH. DEP'T OF NAT. RES., *DAM REMOVAL GUIDELINES FOR OWNERS* (2004).

760. See *id.* at 1; see also MICH. DEP'T OF NAT. RES., *DAM REMOVAL IN MICHIGAN* (2009).

761. See FISHERIES REPORT 10 – CHEBOYGAN RIVER ASSESSMENT, *supra* note 365, at 32.

762. See *id.*; see also U.S. FISH AND WILDLIFE SERV., *ENVIRONMENTAL ASSESSMENT FOR MAPLE RIVER DAM REMOVAL AND ROAD CROSSING IMPROVEMENTS – MAPLE RIVER, PELLSTON, MI 36* (2018).

763. See generally MICH. DEP'T OF NAT. RES. FISHERIES DIV., *CHARTING THE COURSE: FISHERIES DIVISION'S FRAMEWORK FOR MANAGING AQUATIC RESOURCES – 2013–2017 FISHERIES DIVISION STRATEGIC PLAN* (2013).

protocols and considerations,” identified as a scorecard metric, “increase miles of free-flowing river/stream restored through dam removals,” and an “[e]xpand[ed] Dam Management Grant Program to assist communities and other dam owners with dam removal or repair.”⁷⁶⁴ During this period, for example, the Fisheries Division FY 2013 Annual Report revealed that the agency had developed and implemented the Dam Management Grant Program, “which provided \$2.35 million dollars in funding to remove three obsolete, high hazard dams” and “continued removal efforts on one dam.”⁷⁶⁵ The Fisheries Division FY 2014 Annual Report revealed that staff had helped to reconnect more than 424 miles of river habitat and to restore natural stream processes by developing and implementing the new Aquatic Habitat Grant Program, which provided \$1 million *inter alia* for dam removals.⁷⁶⁶ In addition, the Fisheries Division provided technical assistance on eight dam removals.⁷⁶⁷

The Fisheries Division FY 2015 “provided technical assistance on 12 dam removals,” including the Thompson Dam removal, “further developed and implemented the Dam Management Grant Program which provided \$350,000 funding for the removal of three dams, two of which were high hazard dams,” and established the Habitat Improvement Account “to mitigate resource impacts from hydropower dam operations,” which funded the removal of Buhl Dam in Alcona County.⁷⁶⁸ During FY 2016, the Fisheries Division removed the Lyons Dam, which was “funded by \$2.2 million in grants and funds from the DNR, U.S. Fish and Wildlife Service and the Village of Lyons.”⁷⁶⁹ During FY 2017, the Fisheries Division reported that “dam removal or other modifications ha[d] been completed on the Chippewa River (Millpond West Dam), Shiawassee River (Chesaning Dam), and the Cass River (Vassar and Frankenmuth Dams)” and that plans had been “developed for future removals including: Hamilton

764. *Id.* at 10, 25, 27.

765. MICH. DEP’T OF NAT. RES. FISHERIES DIV., MICHIGAN DEPARTMENT OF NATURAL RESOURCES FISHERIES DIVISION ANNUAL REPORT FISCAL YEAR 2013 8 (2014).

766. MICH. DEP’T OF NAT. RES. FISHERIES DIV., MICHIGAN DEPARTMENT OF NATURAL RESOURCES FISHERIES DIVISION ANNUAL REPORT FISCAL YEAR 2014 8 (2015).

767. *Id.*

768. MICH. DEP’T OF NAT. RES. FISHERIES DIV., MICHIGAN DEPARTMENT OF NATURAL RESOURCES FISHERIES DIVISION 2015 ANNUAL REPORT 2, 4 (2016).

769. MICH. DEP’T OF NAT. RES. FISHERIES DIV., MICHIGAN DEPARTMENT OF NATURAL RESOURCES FISHERIES DIVISION FISCAL YEAR 2016 ANNUAL REPORT 1 (2017).

and Fabri dams on the Flint River; Shiatown and Corunna dams on the Shiawassee River; and Dow Dam on the Tittabawassee River.”⁷⁷⁰ In its 2018–2022 strategic plan, MDNR Fisheries Division stated that it would fulfill the agency’s first goal of ensuring healthy aquatic ecosystems and sustainable fisheries, *inter alia* “through administration of the Aquatic Habitat Grant Program and the Dam Management Grant Program.”⁷⁷¹

As these reports clearly show, since 2012 MDNR has provided funding through its Dam Management Grant Program of up to \$350,000 per year “to conservation partners to manage dam *removal*, repair and major maintenance projects that will enhance aquatic resources and fishing opportunities . . . [and] public safety in Michigan.”⁷⁷² The 2018 MDNR Dam Management Grant Program Handbook, for example, notes that funding will not be provided for routine maintenance activities and operational costs, design deficiency correction modifications for dams in fair or satisfactory conditions, or for repair/maintenance costs that are less than 50% of dam replacement cost.⁷⁷³ In addition, Michigan has provided grant funding for dam removal through its Aquatic Habitat Grant Program.⁷⁷⁴ The purpose of that program is “to improve desirable fish and other aquatic organism populations by protecting intact and rehabilitating degraded aquatic habitat.”⁷⁷⁵ In 2015, the Aquatic Habitat Grant Program dispensed approximately \$66,000 to monitor, evaluate, and collect data following the removal of the Boardman and Sabin dams.⁷⁷⁶ In 2017, the Aquatic Habitat Grant Program dispensed approximately

770. MICH. DEP’T OF NAT. RES. FISHERIES DIV., MICHIGAN DEPARTMENT OF NATURAL RESOURCES FISHERIES DIVISION FISCAL YEAR 2017 ANNUAL REPORT 2 (2018).

771. MICH. DEP’T OF NAT. RES. FISHERIES DIV., CHARTING THE COURSE: FISHERIES DIVISION’S FRAMEWORK FOR MANAGING AQUATIC RESOURCES—2018–2022 FISHERIES DIVISION STRATEGIC PLAN 9.

772. MICH. DEP’T OF NAT. RESOURCES, DAM MANAGEMENT GRANT PROGRAM, https://www.michigan.gov/dnr/0,4570,7-350-79134_81684_81685_81745---,00.html [https://perma.cc/GN2Q-HKS6] (last visited Oct. 30, 2019) (emphasis added).

773. MICH. DEP’T OF NAT. RES. FISHERIES DIV., 2018 DAM MANAGEMENT GRANT PROGRAM HANDBOOK 3 (2018).

774. *See Aquatic Habitat Grant Program*, MICH. DEP’T OF NAT. RESOURCES, https://www.michigan.gov/dnr/0,4570,7-350-79134_81684_81685_81743---,00.html [https://perma.cc/C229-DCR7] (last visited Oct. 30, 2019).

775. *Id.*

776. MICH. DEP’T OF NAT. RES., 2015 AHGP FUNDED PROJECTS 3 (2016).

\$362,650 to remove 2,240 feet of the Manistique Dam's center flume wall to improve aquatic habitat and recreational fishing.⁷⁷⁷

The MDEQ/MDNR have apparently long looked unfavorably at dams, especially older earthen dams that generate hydroelectric power, that continue to require considerable and quite costly maintenance and upkeep.⁷⁷⁸ For example, the MDNR/MDEQ have found that the six dams registered with MDEQ in the Tittabawassee River watershed and listed as generating hydroelectric power, plus the remaining 137 dams on the Tittabawassee River, "have altered historical fish communities by blocking migration routes, elevating stream temperatures, and inundating high quality, steep-gradient habitats."⁷⁷⁹ As in the case of the other Michigan rivers discussed above, MDNR/MDEQ would prefer to restore the Tittabawassee River to a run-of-the-river operation.⁷⁸⁰ In contrast to "conventional impoundment hydroelectric facilities," a run-of-the-river operation is one that "harvest[s] the energy from flowing water to generate electricity in the absence of a large dam and reservoir."⁷⁸¹ Run-of-the-river systems are classified primarily based upon their size and capacity.⁷⁸²

The Tittabawassee River's main stem is comprised of three segments.⁷⁸³ Its "middle segment begins at the upper end of the Secord Lake and extends south 36 miles to the Sanford Dam. This segment is a relatively large warmwater system that is greatly influenced by four hydropower dams: Secord, Smallwood, Wixom [Edenville], and

777. MICH. DEP'T OF NAT. RES., PROJECTS FUNDED BY THE 2017 AQUATIC HABITAT GRANT 3 (2017).

778. See MICH. DEP'T OF NAT. RES. FISHERIES DIV., TITTABAWASSEE RIVER ASSESSMENT, SPECIAL REPORT 52, at vix (2009); see also *id.* at xiii (referring to "human activities that have influenced the Tittabawassee River watershed" which encompasses all or part of thirteen counties: Arenac, Bay, Clare, Gladwin, Gratiot, Isabella, Mecosta, Midland, Montcalm, Ogemaw, Osceola, Roscommon, and Saginaw counties).

779. *Id.* at vix.

780. See *Run-of-the-River Hydroelectricity*, UNIV. OF CALGARY, https://energyeducation.ca/encyclopedia/Run-of-the-river_hydroelectricity [<https://perma.cc/LQY4-PTAZ>] (last visited Oct. 30, 2019).

781. *Id.*

782. See *id.* (including "'Micro' - <100 kW; 'Mini' - 100kW-1MW; and 'Small' - 1-50 MW").

783. See TITTABAWASSEE RIVER ASSESSMENT, SPECIAL REPORT 52, *supra* note 778, at 4 (describing the Tittabawassee River as being comprised of three segments "based on differences in channel features and soil types, . . . surficial geology, and topography . . . within the watershed").

Sanford,” all operated by Boyce Hydro Power LLC.⁷⁸⁴ The Tobacco River meets the Tittabawassee River within this segment just south of the Edenville Dam.⁷⁸⁵ According to MDEQ/MDNR, since the middle segment of the main stem of the Tittabawassee River “is almost completely impounded” by hydroelectric dams, these agencies have sought to require “run-of-the-river operations” and have frequently monitored dam operations to minimize their negative effects.⁷⁸⁶

In their 2009 Tittabawassee River Assessment report, MDEQ/MDNR emphasized that “[w]alleye and northern muskellunge are currently stocked in Secord, Smallwood, Wixom [Edenville], and Sanford impoundments. Runs of potamodromous species are blocked by these impoundment dams as well as the Dow Dam. Thus, additional appropriate management actions are eliminated for the Tittabawassee River system, and sport fishing opportunities are lost.”⁷⁸⁷ In addition, their report highlighted how these dams also “disrupt natural flooding cycles and redistribution of sediment and nutrients” and how their impoundments/reservoirs “trap sediments and nutrients often creating anoxic conditions in the deeper, colder bottom waters.”⁷⁸⁸ MDNR/MDEQ thus look askance at hydroelectric generating dams as other than sources of clean renewable energy despite their “black-start” capabilities.⁷⁸⁹

Each of these four earthen hydroelectric power dams were built in 1924 and have been operated by Boyce Hydropower LLC, a Federal

784. See *id.* at 4, 31; see also *id.* at xiii (“The mouth segment extends 35 miles from the Sanford Dam to the confluence with the Saginaw River. This segment is a large warmwater system with relatively low gradient.”); cf. *id.* (noting the middle segment is unlike the river’s headwaters segment, which “begin[s] as coldwater streams and quickly transition into coolwater”).

785. *Id.* at 32.

786. See *id.* at xv.

787. See *id.*

788. *Id.* at 15.

789. See *Reclamation’s Hydropower Resources: Hearing Before the Comm. on Nat. Res.*, 110th Cong. (2008) (statement of Robert W. Johnson, Comm’r, Bureau of Reclamation, U.S. Dep’t of the Interior) (“A black start unit is one that can start its own power without support from the grid in the event of a major system collapse or a system-wide blackout.”); Lindsay Morris, *Black Stat: Preparedness for Any Situation*, POWER ENG’G (July 1, 2011), <https://www.power-eng.com/2011/07/01/black-start-preparedness-for-any-situation/#gref> [<https://perma.cc/A3PN-HSB4>] (“Hydroelectric generators, since they can be started without an external power source, have traditionally been relied upon to restart the electric power system in the event of a blackout.”).

Energy Regulatory Commission (FERC) licensee, since 2006.⁷⁹⁰ Boyce had been in litigation with the MDEQ since June 9, 2016, over violations alleged to have occurred at the Edenville Dam site,⁷⁹¹ until the suit was finally settled via entry of a court-approved consent judgement on December 5, 2019.⁷⁹² The three northernmost dams are located in Gladwin County, Michigan, while the fourth, the southernmost dam, is located in Midland County, Michigan. Secord Dam,⁷⁹³ the northernmost dam, is located at Secord Lake, approximately forty-two miles upstream from Midland, Michigan.⁷⁹⁴ Smallwood Dam is located approximately eight miles downstream from Secord Dam and approximately thirty-four miles upstream from

790. TITTABAWASSEE RIVER ASSESSMENT, SPECIAL REPORT 52, *supra* note 778, at 31.

791. See Summons and Complaint, Mich. Dep't of Env'tl. Quality v. Boyce Hydro, LLC, Case No. 2016-8538-CE (Gladwin Cty. Cir. Ct. 55th Jud. Cir.), <https://nebula.wsimg.com/4e47311969570b030c83f5625719cfab?AccessKeyId=7F494AADE6AF42D36823&disposition=0&alloworigin=1> ("1. This is an action to obtain both declaratory and injunctive relief, and a judgment imposing civil fines and awarding damages. The defendants have violated Parts 31, 91, 301, and 303 of the Natural Resources and Environmental Protection Act (NREPA), MCL 324.101 et seq., and its associated administrative rule, on several occasions over the course of many years.").

792. See Consent Judgment, Mich. Dep't of Env'tl. Quality v. Boyce Hydro, LLC, Case No. 2016-8538-CE (Gladwin Cty. Cir. Ct. 55th Jud. Cir.) (entered Dec. 5, 2019), <https://nebula.wsimg.com/2a7b86e9a297e552a66e7fef1ce803e0?AccessKeyId=7F494AADE6AF42D36823&disposition=0&alloworigin=1>.

793. See TITTABAWASSEE RIVER ASSESSMENT, SPECIAL REPORT 52, *supra* note 778, at 31–32 ("Secord Dam, the uppermost of the large hydroelectric dams, is located north of the Village of Wooden Shoe in Gladwin County, T 19N, R1E, Sec 15, just below the confluences of the East, West, and Middle branches of the Tittabawassee River. Secord Dam has three sections that span a total of 2,085 ft. The dam has a dam height of 55 ft, hydraulic head of 46 ft, and impounds 895 acres and creates 69 miles of shoreline at normal pool height (750.8 ft National Geodetic Vertical Datum (NGVD)). There is a reinforced multiple arch spillway with an ogee crest and two Taintor gates. The powerhouse is equipped with one Francis vertical-axis turbine generator with an installed capacity of 1.2 MW (FERC 1998b). There is a 47-ft long intake leading to the powerhouse. During winter drawdown, December 15 and January 15, the level may not fall below 747.8 ft NGVD.").

794. See *Dam Information*, GLADWIN CTY., <http://gladwincounty-mi.gov/dam-information/> [<https://perma.cc/SW2C-YLDL>] (last visited Oct. 30, 2019).

Midland.⁷⁹⁵ Edenville Dam,⁷⁹⁶ which is the largest of the four earthen dams, is located approximately thirteen miles downstream from the Smallwood Dam and approximately twenty-one miles upstream from Midland. The Edenville Dam “consists of two sections, one across the Tobacco River and one across the Tittabawassee River, each with a concrete spillway and earthen embankments extending from either side of the spillways to natural ground.”⁷⁹⁷ Sanford Dam, the southernmost dam, is located approximately ten miles downstream of Edenville Dam in Midland County, Michigan, and approximately

795. See TITABAWASSEE RIVER ASSESSMENT, SPECIAL REPORT 52, *supra* note 778, at 31–32 (“Smallwood Dam, the second hydroelectric dam in the series on the main stem, is located 10 miles downstream of Secord Dam in the Village of Wooden Shoe in Gladwin County, T 18N, R 1E, Sec 15. Smallwood Dam has a height of 36 ft and hydraulic head of 28 ft. It impounds 402 acres, creating a 25-mile shoreline at normal pool elevation (704.8 ft) NGVD. The dam has a reinforced concrete hollow gravity spillway dam about 52 ft long and 50 ft wide at the base. There are two steel Taintor gates on top of the right-side earth embankment, about 100 ft long by a maximum of 40 ft high. There is a 25 ft long intake leading to the powerhouse. The powerhouse has a single turbine with an installed capacity of 1.2 MW (FERC 1998c). Except during winter drawdown, December 15 and January 15, the level may not fall below 701.8 ft NGVD. There currently is no official public access site on Smallwood Lake impoundment.”); see also *Dam Information*, *supra* note 794.

796. See *Dam Information – Edenville Dam*, GLADWIN CTY., <http://gladwincounty-mi.gov/dam-information/> [https://perma.cc/HL9L-ET5L] (last visited Oct. 30, 2019). Activities alleged to have been undertaken at the Edenville Dam had been the subject of the legal dispute between the State of Michigan and Boyce Hydropower LLC. See *id.*

797. See *id.*; see also TITABAWASSEE RIVER ASSESSMENT, SPECIAL REPORT 52, *supra* note 778, at 32 (“Edenville Dam, the third in series of hydroelectric dams, is located 13 miles down from Smallwood Dam in the village of Edenville in Gladwin County, T 17N, R 1W, Sec 35. The dam width consists of three sections totaling about 6,600 ft. Edenville Dam has a height of 54.5 ft, hydraulic head of 44 ft, and impounds the most water with 2,600 acres, creating 49 miles of shoreline at full pool, in Wixom Lake impoundment. There is a 50 ft long intake and the powerhouse has an installed capacity of 4.8 MW. The project creates a 0.4-mile bypassed reach on the Tobacco River that extends from the dam to the point where the Tobacco River meets the Tittabawassee River. The Tobacco River arm bypass has a minimum flow of 40 CFS winter and 66 CFS summer (FERC 2000). The Tobacco River arm is essentially on the west and the Tittabawassee River arm is on the east side of the impoundment (FERC 1998d). Normal pool elevation is 675.8 ft NGVD. During winter drawdown, December 15 and January 15, the level may not fall below 672.8 ft NGVD. Railed barrier free fishing piers are supposed to be located near the tailwater area of the Tittabawassee River outlet and an improved and railed shoreline pier is to be provided at the Tobacco River outlet.”).

thirty-five miles upstream from the mouth segment of the Tittabawassee River.⁷⁹⁸

Given the MDNR/MDEQ's institutional attitude that hydroelectric power-generating dams are harmful to water quality, wetlands, and fish and that the Tittabawassee River should be returned to its run-of-the-river natural state, it is not surprising that Boyce Hydropower LLC had been targeted, administratively harassed,⁷⁹⁹ and, ultimately, subject to a multi-year lawsuit by these state agencies and their overzealous enforcement officials for alleged noncompliance with NREPA Parts 31, 91, 301, and 303. Indeed, at least one MDNR official, a senior fisheries biologist working in the habitat management unit to oversee stream and habitat restoration work, testified at a recently convened deposition that his primary responsibility is monitoring the compliance of hydro projects with their federal FERC licensing obligations,⁸⁰⁰ focusing on the impact of the hydro project upon the environment.⁸⁰¹ Although his job description does not state he is the official liaison from MDNR to the FERC with respect to all FERC-licensed hydro projects located in the State of Michigan, he effectively serves in that capacity.⁸⁰²

798. See TITTABAWASSEE RIVER ASSESSMENT, SPECIAL REPORT 52, *supra* note 778, at xiii, 32 (“The last in the series of hydroelectric dams, Sanford Dam is located 10 miles downstream of Edenville dam in the Village of Sanford in Midland County, T15N, 1W, Sec 24. It has a dam height of 36 ft and hydraulic head of 26 ft. It impounds 1,528 acres above it, in Sanford Lake impoundment. The dam has a controlled crest length of 1,579 ft, and a spill width of 139 ft. Sanford Dam was licensed under FERC in 1987, but amended to be included for relicensing with the above three dams in 2028 (FERC 1998e, and FERC 2004). The minimum flow requirement for downstream release is 210 ft³/s. except during walleye spawning season when the minimum flow requirement is 650 ft³/s. This flow requirement is not as beneficial as run of the river, but it does provide for an increase in the amount of available downstream aquatic habitat than would be available under peaking operations. This FERC order again called for plans for development of public access to the reservoir and downstream, short- and long-term needs for recreational facilities, and associated construction plans.”).

799. See, e.g., Transcript of Deposition of Kyle Morris Kruger, at 83:7-85:4, Mich. Dep’t of Envtl. Quality v. Boyce Hydro, LLC (Sept. 27, 2018) (No. 16-8538-CE), <https://nebula.wsimg.com/4747a3833fef4b45006555df4d073c1?AccessKeyId=7F494AADE6AF42D36823&disposition=0&alloworigin=1> (discussing an incident whereby this MDNR official had acted aggressively toward and had made a vulgar statement to two key Boyce employees out of frustration that Boyce Hydro Power LLC, the former FERC licensee of the Edenville Dam Project, had not developed recreational facilities at that site to MDNR’s liking).

800. *Id.* at 5:13–20; 6:1–9.

801. *Id.* at 6:13–15.

802. *Id.* at 7:1–10; 106:10–107:1.

This official testified that where a dam license was entered into years ago and does not reflect current environmental rules (as in the case of Boyce),⁸⁰³ MDNR “figures out ways that the operation of the facility will minimize the impacts to the environment, and in some cases, [helps to] change [it] over from a peaking project to a run of river project.”⁸⁰⁴ According to said official, peak operating hydroelectric FERC-licensed dams “cause more harm than traditional or run of river operations as to riverine tail race, and also there’s more erosion along the impoundment shorelines due to the fluctuating water levels in the pond.”⁸⁰⁵

At least one MDNR official has admitted that he engaged in both the indirect enforcement of NREPA Parts 31, 301 and 303⁸⁰⁶ and the unofficial monitoring of FERC hydroelectric dam license compliance (as in the case of Boyce) by intentionally submitting comments and requests to the FERC that the agency well recognized could be accepted as new conditions imposed on the licensee upon issuance or renewal⁸⁰⁷ or could otherwise result in FERC administrative enforcement actions. “[I]f there is a project [MDNR] feel[s] is causing impacts in a negative manner and there’s a pathway in the license in order to achieve mitigation, [MDNR] . . . would file comments and requests” with the FERC.⁸⁰⁸ And if MDNR concluded that the licensee was not complying with the license, the agency “would file comments with FERC saying we don’t believe that the obligations of the license are being met and something needs to be done, and then FERC would direct the licensee to do something.”⁸⁰⁹ This MDNR official also testified that he had been dealing with the Boyce Edenville Dam Site for approximately twenty years, since the renewal of the license,⁸¹⁰ regarding mostly recreational development and access issues governed by the FERC license.⁸¹¹ Furthermore, where a FERC license

803. See FERC, PROJECT NO. 10808, ORDER ISSUING ORIGINAL LICENSE TO WOLVERINE POWER CORPORATION (Oct. 16, 1998) (discussing the “Edenville Hydroelectric Project” and addresses issues common to all four projects—i.e., the Sanford Hydroelectric Project No. 2785, the Smallwood Hydroelectric Project No. 10810, and the Secord Hydroelectric Project No. 10809).

804. Transcript of Deposition of Kyle Morris Kruger, *supra* note 799, at 24:9-21.

805. *Id.* at 120:9–15.

806. *Id.* at 109:15–112:16.

807. See *id.* at 24:22–25:7; 26:6–27:4.

808. *Id.* at 27:22–25.

809. *Id.* at 27:25–28:5.

810. See *id.* at 34:1–5; 35:18.

811. See *id.* at 35:7–13; 35:21–36:4.

provides that the licensee's recreational plan must be developed in consultation with the MDNR, this official testified that the MDNR then submits comments to the FERC and thereby indirectly utilizes the agency consultation process to persuade the FERC to effectively amend the license or reshape an already-issued or renewed license to MDNR's liking.⁸¹² This MDNR official testified, moreover, that from 2015 through 2018 (a period of approximately four years), he had filed no fewer than twenty-seven comment and request letters to the FERC via the FERC e-library, alleging Boyce's noncompliance with its FERC licenses and NREPA Parts 31, 301 and 303,⁸¹³ even where MDEQ, and not MDNR, had enforcement responsibility/jurisdiction over the issue (e.g., sedimentation and soil erosion control).⁸¹⁴ Ultimately, these letters contributed to FERC's revocation of the Edenville Dam license.⁸¹⁵

The irony of the Boyce litigation, however, is that MDEQ's allegations of NREPA violations at the Edenville Dam site appeared to have centered around the unpermitted movement of dirt (i.e., sand, soil, sediment, rocks, and gravel) on the property servicing and immediately adjacent to the former FERC Project Boundary of the Edenville Dam site, posing only the *possibility* (not probability) of soil erosion occurring and sending sedimentation runoff (discharge) into the dirt-bottomed Tittabawassee and Tobacco Rivers. The Tittabawassee River, including its Tobacco River tributary (which "is not on Michigan's [CWA §] 303(d) [impaired waters] list"),⁸¹⁶ however, is known to accumulate sedimentation naturally as it apparently overflows its banks on an ongoing basis to a far greater extent than the possible soil erosion generated by operations at such dam sites. As the 2009 MDEQ/MDNR report that reviewed the Dow Chemical Midland facility spill and cleanup relates, the "Tittabawassee River is a 'flashy' river that often overflows its

812. See *id.* at 40:18–41:12; 41:22–42:5.

813. See *id.* at 79:7–93:12.

814. See *id.* at 97:14–98:13; 102:2–4; 103:22–105:5. This MDNR official also testified that he submitted the letters to FERC under these circumstances because he felt he had a "moral obligation to make the observations and request assistance." *Id.* at 107:25–108:4.

815. See *Boyce Hydro Power, LLC*, 159 F.E.R.C. ¶ 62,292 (2017), at 1, 23, 24, 42–43, 48–52; see also *Boyce Hydro Power, LLC*, 161 FERC ¶ 62,119, 1, 3–4, 6 (2017).

816. See State of Michigan, *Tobacco River Restoration Project*, MDEQ-Water Bureau (2002).

banks.”⁸¹⁷ Given the natural proclivities of the Tittabawassee River, the Dow Chemical facility incident resulted in the “deposition of contaminated material onto the floodplain and in the redistribution of contaminated sediments.”⁸¹⁸ Indeed, MDNR’s own description of Tittabawassee River belies the legal fiction that has been created by NREPA’s effective adoption of an administrative presumption of harm requiring strict liability impositions for alleged inland stream, floodplain, wetland, and soil erosion violations, which, as this Article has clearly revealed, dovetails nicely with the GWLQA’s analogous strict liability-based precautionary principle and ecosystem-based legal and philosophical underpinnings.

The 1987 GLWQA had identified Saginaw River and Saginaw Bay, Michigan, as an Area of Concern (AOC) on Lake Huron due to contaminated sediments, fish consumption advisories, degraded fisheries, and loss of significant recreational values.⁸¹⁹ The following sources of pollution were identified: industrial waste discharges; municipal, industrial, and stormwater discharges; combined sewer overflows; and agricultural and urban runoff. Contaminants included dioxins, furans, PCBs, chloride, metals, acids, and excessive nutrients, such as nitrogen and phosphorus.⁸²⁰ USEPA addressed the source of much of these contaminants by engaging in a massive cleanup of the Tittabawassee River, Saginaw River, and Saginaw Bay, which began in 2012 as far north as a three-mile stretch next to the Dow Chemical Company’s Midland, Michigan, Plant.⁸²¹ This cleanup continues to the current day, with USEPA having released a 2018 plan proposing cleanup options for Segments 6 and 7 of the Tittabawassee River downstream from the Dow Chemical Midland Plant, which involves remediation of several “sediment management areas (SMAs) and bank management areas (BMAs).”⁸²² The MDNR/MDEQ Tittabawassee

817. TITTABAWASSEE RIVER ASSESSMENT, SPECIAL REPORT 52, *supra* note 778, at 37.

818. *Id.*

819. *See Great Lakes AOCs – About Saginaw River and Bay AOC*, EPA, <https://www.epa.gov/great-lakes-aocs/about-saginaw-river-and-bay-aoc> [<https://perma.cc/N5KD-NBWC>] (last updated Oct. 3, 2018).

820. *See id.*

821. *See Superfund Site: Tittabawassee River, Saginaw River & Bay Midland, MI Cleanup Activities*, EPA, <https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.Cleanup&id=0503250#bkgground> [<https://perma.cc/D6F3-W44F>] (last visited Oct. 30, 2019).

822. *Id.*; *see also* TITTABAWASSEE AND SAGINAW RIVER & FLOODPLAIN PROJECT TEAM, TITTABAWASSEE RIVER SEGMENTS 6 AND 7 (OU1) RESPONSE

River Assessment identified that the higher than normal dioxin levels had arisen from the operations of the Dow Chemical Midland Plant and had been found in Tittabawassee River sediment, floodplain soils, fish, and wild game animals located beginning at Midland and downstream from the Boyce Hydropower LLC-operated hydroelectric dams.⁸²³

While such evidence against Dow should have removed the Boyce hydroelectric dam facilities from MDEQ's consideration as a major point source or a nonpoint source contributor to the Tittabawassee River's impairment (and thus Saginaw Bay's and Lake Huron's impairment), this has *not* been Boyce's experience. Indeed, it must be recalled that Annex 2.c of the GLWQA had required the development of the Lake Huron Lakewide Action and Management Plan (LAMP).⁸²⁴ Additionally, the Lake Huron LAMP has taken the position that hydropower dams "threaten the diversity of native fishes by restricting or eliminating connectivity between lake and critical spawning, nursery, and overwintering habitat" and "interrupt the natural flow of water, nutrients, and sediment to Lake Huron, alter temperature regimes (e.g., thermal heating), and increase the transformation and exposure of toxic pollutants (e.g., mercury)."⁸²⁵ It also must be recalled that the 2017 Lake Huron LAMP recommended "[f]ederal, regional and multi-jurisdictional initiatives that examine opportunities for dam decommissioning and removal," included dam removal among its lakewide actions for the five-year period spanning 2017–2021, and that GLRI funding has been used since at least 2012 and will continue to be used to remove dams across the State of Michigan and the Great Lakes Region.⁸²⁶

Therefore, it is no surprise that MDEQ's 2015 and Draft 2019 Nonpoint Source Program plans identified how "[w]ater quality impairments caused by dams" are among "[t]he *primary* NPS pollutants and causes of impairment addressed by the NPS Program."⁸²⁷ MDEQ's 2015 and Draft 2019 NPS Plan further state that

PROPOSAL 1–2 (2018); EPA, EPA PROPOSES CLEANUP PLAN FOR TITTABAWASSEE RIVER: SEGMENTS 6 & 7, at 1 (2018).

823. See TITTABAWASSEE RIVER ASSESSMENT, SPECIAL REPORT 52, *supra* note 778, at 36–37.

824. See *supra* Section III.F.3.

825. See *id.*

826. *Id.*

827. MICH. DEP'T OF ENV'T GREAT LAKES AND ENERGY WATER RES. DIV., NONPOINT SOURCE PROGRAM PLAN 7 (Dec. 3, 2015); MICH. DEP'T OF ENV'T GREAT LAKES AND ENERGY WATER RES. DIV., NONPOINT SOURCE PROGRAM DRAFT 10 (June 14, 2019).

“NPS threats and causes of impairments that are relatively minor on a statewide basis may be locally important within individual watersheds and best addressed through implementation of a [watershed management plan] WMP.”⁸²⁸ The 2015 and draft 2019 NPS Plan cite as a priority example “[a]lterations to natural stream morphology caused by dams and dam failures.”⁸²⁹

The 2015 and Draft 2019 NPS Plans, in addition, state that the “NPS Program will work to address the causes of hydrologic alteration of water bodies and watersheds. The *National Water Quality Inventory: 2000 Report to Congress* lists hydrologic modification as a source of water quality impairment in 20 percent of rivers and streams nationally, and 18 percent of lakes, ponds, and reservoirs.”⁸³⁰ “Hydrologic modification can be caused by a number of activities, including dams Altering the hydrology of a water body or watershed can increase soil erosion and sediment loads resulting in impaired aquatic life.”⁸³¹

More specifically, MDEQ’s 2015 and Draft 2019 NPS Plans state that “[a]nthropogenic flow obstructions,” such as dams, “change the natural morphology of the stream by changing stream dimensions, flow velocities and sinuosity.” For example, dams “impound water and do not allow for the natural movement of sediment through the watershed. In addition, soil erosion can be unnaturally high below dams and undersized culverts.” Significantly, MDEQ’s draft NPS Plan emphasizes that the “NPS Program will look for opportunities to remov[e] unnatural flow obstructions to reduce soil erosion and restore natural stream functions. The NPS Program will consider the use of program funds for portions of *dam removal projects* that will contribute toward improvements in water quality.”⁸³² The 2015 and Draft 2019 NPS Plans state that to improve climate change

828. MICH. DEP’T OF ENV’T GREAT LAKES AND ENERGY WATER RES. DIV., NONPOINT SOURCE PROGRAM PLAN 27 (Dec. 3, 2015); MICH. DEP’T OF ENV’T GREAT LAKES AND ENERGY WATER RES. DIV., NONPOINT SOURCE PROGRAM DRAFT 28 (June 14, 2019).

829. *Id.*

830. MICH. DEP’T OF ENV’T GREAT LAKES AND ENERGY WATER RES. DIV., NONPOINT SOURCE PROGRAM PLAN 29 (Dec. 3, 2015); MICH. DEP’T OF ENV’T GREAT LAKES AND ENERGY WATER RES. DIV., NONPOINT SOURCE PROGRAM DRAFT 30 (June 14, 2019).

831. *Id.*

832. MICH. DEP’T OF ENV’T GREAT LAKES AND ENERGY WATER RES. DIV., NONPOINT SOURCE PROGRAM PLAN 30 (Dec. 3, 2015) (emphasis added); MICH. DEP’T OF ENV’T GREAT LAKES AND ENERGY WATER RES. DIV., NONPOINT SOURCE PROGRAM DRAFT 30–31 (June 14, 2019) (emphasis added).

performance, it would promote removal of dams that no longer serve their purpose “to reduce the surface area of impounded river water warmed by solar radiation in the summer.”⁸³³ Moreover, the Draft 2019 NPS Plan cites the “removal of three major dams on the Boardman River mainstream” as “the largest dam removal project in Michigan’s history, and the largest wetlands restoration in the Great Lakes Basin.”⁸³⁴

In sum, MDNR/MDEQ’s strict enforcement of NREPA Parts 303, 301, 91, and 31, which also encompasses the agencies’ dam removal policy, resulted in their excessive monitoring of Boyce Hydro Power LLC’s operation of its four Tittabawassee River FERC-licensed hydroelectric dams. The burdens such monitoring had imposed on Boyce significantly contributed to its loss of the Edenville Dam FERC license and ultimately led Boyce to seek the sale of all four Tittabawassee River hydroelectric dam facilities and the lands servicing them to Michigan lakeside residents.⁸³⁵ These policies and practices amount to nothing less than *foreign regulatory acculturation* by overzealous regulators and government-funded environmental and wildlife extremist groups which seek to ensure their climate change-

833. *Id.* at 48.

834. MICH. DEP’T OF ENV’T GREAT LAKES AND ENERGY WATER RES. DIV., NONPOINT SOURCE PROGRAM DRAFT 78 (June 14, 2019) (discussing the “Boardman River Downstream from the Confluence of the North Branch and the South Branch”).

835. See Chris Ehrmann, *Wixom Lake to Become a Lake Again After Tentative \$9M Deal*, MLIVE (Apr. 26, 2019), <https://www.mlive.com/news/saginaw-bay-city/2019/04/wixom-lake-to-become-a-lake-again-after-tentative-9m-deal.html> [<https://perma.cc/5C2V-3DH9>]; David Lyden, *Wixom Lake Levels Expected to Return to Normal as Task Force Agrees to Buy Dams*, 9&10 NEWS (Apr. 25, 2019), <https://www.9and10news.com/2019/04/25/wixom-lake-levels-expected-to-return-to-normal-as-task-force-agrees-to-buy-dams/> [<https://perma.cc/69ZY-MA6X>]; Tereasa Nims, *Wixom Water: Tentative Deal Reached on Purchase of Four Dams*, MIDLAND DAILY NEWS (Apr. 24, 2019), <https://www.ourmidland.com/news/article/Tentative-nsbp-deal-reached-on-purchase-of-four-13792418.php> [<https://perma.cc/Y2TT-EBKS>]; see also *A Sustainable Future for the Four Lakes*, FOUR LAKES TASK FORCE, <http://www.four-lakes-taskforce-mi.com/> [<https://perma.cc/A8FK-RQB6>] (last visited Oct. 30, 2019); *FLTF Files for Preliminary Permit to Obtain Hydroelectric Power License for Edenville Dam*, FOUR LAKES TASK FORCE (June 24, 2019), <http://www.four-lakes-taskforce-mi.com/updates.html> [<https://perma.cc/UM7Q-W79T>].

free utopian society materializes,⁸³⁶ no matter the economic cost and their inability to quantify the putative benefits promised.⁸³⁷

CONCLUSION

This Article has demonstrated that the wetlands, floodplains, inland waterway, and soil erosion and sedimentation control provisions of Parts 31, 91, 301, and 303 of NREPA, Michigan's primary environmental statute, and their corresponding regulations, as well as MDEQ NREPA monitoring and enforcement practices (which include MDNR FERC license compliance monitoring practices and dam removal policies), have effectively been "Europeanized" and internationalized at the expense of the constitutionally protected private property rights of Michigan-based hydroelectric dam owner/operators, farmers, and other landowners. This result has been obtained, in part, because of the state's implementation of various federal, interstate, and international environmental agreements and initiatives entered into with Canada and the Great Lakes States to which Michigan has directly (and indirectly through USEPA) become a signatory party or an intended third-party beneficiary. These legal and political instruments embody European and international legal norms and standards, such as sustainable development, the

836. See Lawrence Kogan, *A Second Look at EPA Findings*, FORBES (Mar. 5, 2015), <https://www.forbes.com/sites/realspin/2015/03/05/a-second-look-at-epa-findings/#4bd154d32c8d> [<https://perma.cc/DQ86-ZEXM>]; Kogan, *Revitalizing the Information Quality Act*, *supra* note 287, at 13–14; Lawrence Kogan, *Climate Change Chicanery and the Federal Agency-Academic Complex*, DAILY CALLER (Sept. 26, 2014), <https://dailycaller.com/2014/09/26/climate-change-chicanery-and-the-federal-agency-academic-complex/> [<https://perma.cc/MBU8-PDD3>]; Lawrence A. Kogan & Richard D. Otis, *Keeping Junk Science at Bay on Global Warming*, WASH. TIMES (May 29, 2014), <https://www.washingtontimes.com/news/2014/may/29/kogan-otis-keeping-junk-science-at-bay/> [<https://perma.cc/BFJ3-QUUR>].

837. See WATER QUALITY AND POLLUTION CONTROL IN MICHIGAN 2016 SECTIONS 303(D), 305(B), AND 314 INTEGRATED REPORT, *supra* note 435, at 31 ("The benefits associated with implementation of these programs are numerous, although it is not possible to accurately quantify the benefits in strictly monetary terms."); *id.* at 109 ("If (Table of Contents) 2.26 Cost/Benefit Assessment is to remain in the document the contribution of local funding, support and operations should be included and expanded to reflect the real local costs of water treatment, wastewater treatment, on-going maintenance of water protection systems, and the value of local stewardship as reported (at minimum) in DEQ grant records."); see also *id.* ("We appreciate that 2.26 is far from complete, as stated in the second sentence. The numbers used in this section only help provide a brief description of the scale of activities in which the MDEQ is involved and are not meant to address the significant efforts and costs realized by local governmental entities as well.").

precautionary principle, ecosystem-based management, marine spatial planning, and weight-of-the-evidence.⁸³⁸ In addition, Michigan has been compelled to implement at the state level complimentary USEPA and USFWS-driven federal environmental and wildlife regulations (i.e., Clean Water Act, Endangered Species Act, Coastal Zone Management Act, etc.) revised during the former Obama administration specifically to incorporate such European and international norms and standards.⁸³⁹ Michigan's strict enforcement of NREPA also is attributable, in part, to Michigan's exclusive status as only one of two U.S. states USEPA has authorized to enact and enforce CWA § 404 wetlands protections that are more stringent than those at the federal level.⁸⁴⁰

Michigan's and Washington's political classes, however, have long relied upon the density and complexity of these Canada–U.S. environmental agreements and initiatives and their relationship to U.S. federal and Michigan state environmental laws as a pretense for not disclosing to the state electorate how the European and international legal norms and standards they incorporate have incrementally over time been imbibed into state law in the putative “public interest.” The failure of these “captured”⁸⁴¹ elites to transparently inform the ordinary people (“*We the People*”) regarding how these foreign legal norms and standards have been designed and implemented to curtail the exercise of their constitutionally protected private property rights is nothing short of an abdication of their federal and state oaths of office and a violation of the legal and fiduciary responsibilities they owe to the public they are sworn to serve.⁸⁴²

838. See *supra* Parts I–V.

839. See, e.g., Kogan, *Revised U.S. Deep Seabed Mining Policy*, *supra* note 96 (and sources cited therein).

840. See *supra* Part VI.

841. See Lawrence A. Kogan, *Commercial High Technology Innovations Face Uncertain Future Amid Emerging “BRICS” Compulsory Licensing and IT Interoperability Frameworks*, 13 SAN DIEGO INT’L L. J. 201, 213–216 (2011) (discussing the concept of industry and interest group regulatory capture related to clean energy projects).

842. See U.S. CONST. art. VI, cl. 3 (“The Senators and Representatives before mentioned . . . shall be bound by Oath or Affirmation, to support the Constitution”); see also *Oath of Office*, U.S. SENATE, https://www.senate.gov/artandhistory/history/common/briefing/Oath_Office.htm [https://perma.cc/XBS2-6HHK] (“I do solemnly swear (or affirm) that I will support and defend the Constitution of the United States against all enemies, foreign and domestic; that I will bear true faith and allegiance to the same; that I take this obligation freely, without any mental reservation or purpose of evasion; and that I will well and faithfully discharge the duties of the office on which I am about to enter: So help me God.”)

These federal and state government servants *must* be held publicly accountable. Public accountability can be achieved most swiftly by voting out of and recalling from office (preferably, during the next election cycle) the Europhiliacs and New Green Deal supporters hiding in plain sight within Michigan's and Washington's legislative and executive branches. Alternatively (or additionally), concerned Michigan citizens and residents can demand that their state and federal representatives undertake more lasting reforms resulting in (1) the revision of NREPA and accompanying regulations and modification of MDEQ/MDNR/EGLE monitoring and enforcement practices to ensure they are and remain consistent with constitutional due process and the rule of law; (2) the narrow reinterpretation or surrender of Michigan's special CWA § 404 status with USEPA, recognizing that Congress had never intended to regulate isolated nontidal inland wetlands;⁸⁴³ and (3) the amendment of or the State of Michigan's withdrawal from the Great Lakes Water Quality Agreement, the Great Lakes–St. Lawrence River Basin Agreement, the interstate Great Lakes–St. Lawrence River Basin Water Resources Compact, the Great Lakes Restoration Initiative, and the Great Lakes Regional Collaboration, within which the European and international legal norms and standards discussed herein are ensconced. Finally, concerned Michigan citizens and residents can call for the White House and Congress to immediately suspend *all* U.S. funding to the Great Lakes Legacy Act, Great Lakes Regional Collaboration, Great Lakes Restoration Initiative, Great Lakes Commission, Great Lakes Water Quality Agreement, and *all* Clean Water Act (CWA) §§ 319 and 404 federal–state funding susceptible to nontransparent allocation/diversion/transfer thereto. And they can insist on this moratorium remaining in place until it can be demonstrated that such agreements, initiatives, and funding mechanisms have been purged of their postmodern European and international law taint.

(last visited Oct. 30, 2019); *see* MICH. CONST. art. XI, § 1 (“I do solemnly swear (or affirm) that I will support the Constitution of the United States and the constitution of this state, and that I will faithfully discharge the duties of the office of . . . according to the best of my ability.”).

843. *See* Kogan, *Harmonizing ‘Converted Wetland’ Under the Clean Water Act and Food Security Act*, *supra* note 34.