

DRAFT- DO NOT CITE

PLASTIC ACTIVISM AND THE CLEAN WATER ACT  
BY

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*Scientists have been sounding the alarm about the health and environmental dangers of plastics. We have been slow to pay attention. Plastic production causes a range of environmental harms. Furthermore, larger plastic items break down over time into smaller and smaller pieces of plastic—microplastics. Much of the plastic waste in our environment originates as single use items which degrade into microplastics that pollute rivers, wildlife, and humans ourselves. Today we sit on the verge of a new tidal wave of petrochemical build-out to produce plastic in the U.S. in areas already overburdened with air and water pollution. Can the Clean Water Act address this challenge?*

*The Clean Water Act can indeed make an important difference. Why has failed to do so thus far? Environmental activists have highlighted the Clean Water Act's potential utility to stem the tide of plastic toxification of our waters, citizens and wildlife. This has included important regulatory efforts through citizen petitions, engagement in voluntary EPA programs, and citizen-suit litigation. Although citizen engagement is encouraged by federal law, it is not intended to replace effective regulatory programs to address known threats to water resources. This paper will look at these combined citizen efforts, pressure these efforts has directed at responsible government officials, and what those efforts reveal about the durability of the Clean Water Act at 50 to address evolving threats to the chemical, physical and biological integrity of our precious water resources.*

I. INTRODUCTION

Plastic is produced by mixing fossil fuels with other chemicals. Single use plastic is a major revenue generator since the items are literally designed to be infinitely replaced.<sup>1</sup> This revenue generation model was deliberately pursued by the plastic industry.<sup>2</sup> Because the concerns with plastic pollution are now widespread, the plastic industry is aggressively steering legal regulation

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<sup>1</sup> A.T Williams and Nelson Rangel-Buitrago, *Marine Litter: Solutions for a Major Environmental Problem*, 35 J. COASTAL RES. 648, 648 (2019). The authors note that plastic packaging and single-use items “enter the waste stream immediately after use” and that the recognized complexity of the issue includes the facts that society has moved to a disposable model and people have increasingly “on the go” lifestyles. *Id.* at 649.

<sup>2</sup> MAX LIBOIRON, POLLUTION IS COLONIALISM 1 (2021) (describing strategy to maximize profits by creating constant demand for new plastic).

to consumer usage architecture and away from limits on production or use.<sup>3</sup> In practice this means promoting recycling efforts and improvements in publicly owned treatment works instead of reformulating or reducing the production of plastic and its toxic footprint.<sup>4</sup> Continuing down this path will deepen the need for robust pollution abatement efforts that have thus far eluded regulators. Existing legal regimes have been unable to handle the vast quantity of plastic and plastic-related wastes entering in the environment, and for a variety of reasons the volume is about to be turned way up.

In a carbon-constrained world the fossil fuel industry is predicted to increase plastic production. Given the international commitment to decarbonize economies and dramatically reduce use of fossil fuels to minimize the harm from climate change,<sup>5</sup> the main area for predicted growth in fossil fuels use is in the production of plastic.<sup>6</sup> Plastic production is predicted to be a leading greenhouse gas contributor as energy systems move away from fossil fuels to sources such as solar, wind, nuclear or other non-carbon forms of energy production.<sup>7</sup> Natural gas production has unlocked the raw materials for plastic production, and those producers are looking to monetize their product.<sup>8</sup> Moreover, recycling of plastic is expensive and inefficient, since traditional plastic

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<sup>3</sup> In contrast, many scholars are emphasizing the need to incentivize the reduction of unnecessary plastic, specifically single-use plastic. See Jehan El-Jourbagy, et al., *Creating an Industrial Regulatory Framework to Reduce Plastics*, 18 BERKELEY BUS. L. J. 94 (2021)(promoting extended producer liability).

<sup>4</sup> WORLD ECONOMIC FORUM, ELLEN MACARTHUR FOUNDATION AND MCKINSEY & COMPANY, *THE NEW PLASTICS ECONOMY — RETHINKING THE FUTURE OF PLASTICS* 17 (2016), available at <http://www.ellenmacarthurfoundation.org/publications>).

A linear economy would lock us into continued overconsumption of resources which has led to the promotion of a circular economy by those promoting sustainable development. Tallash Kantai, *Confronting the Plastic Pollution Pandemic*, International Institute for Sustainable Development at 6 (2002) (explaining how plastic industry shifted responsibility to end users and the fallacy of recycling as a solution).

<sup>5</sup> United Nations Framework for Climate Change, May 9, 1992, S. Treaty Doc No. 102-38, 1771 U.N.T.S. 107; Paris Agreement to the United Nations Framework Convention on Climate Change, Dec. 12, 2015, T.I.A.S. No. 16-1104.

<sup>6</sup> S&P Global, *What is the Future for Plastics?* (Feb. 24, 2020), available at <https://www.spglobal.com/en/research-insights/articles/what-is-the-future-for-plastics>; INTERNATIONAL ENERGY AGENCY, *THE FUTURE OF PETROCHEMICALS: TOWARDS MORE SUSTAINABLE PLASTICS AND FERTILIZERS* (OECD/IEA 2018).

<sup>7</sup> *Id.* The production of plastic products with the use of coal-based energy will also be a significant driver of greenhouse gas emissions. See Livia Cabernard, et. al, *Growing Environmental Footprint of Plastics Driven by Coal Combustion*, 5 NATURE SUSTAINABILITY 139-148 (Feb. 2022) (emphasizing coal-based emissions for plastic production has quadrupled since 1995 and is the majority of the carbon footprint for plastics).

<sup>8</sup> *Id.* Natural gas production in the U.S. is predicted to increase, and producers see an opportunity to co-locate plastic production facilities in close proximity to gas-production locations.

degrades with each recycling attempt. Thus, a continued demand for virgin plastic remains the optimal revenue generator for the plastics industry.

Moreover, society has come to see many plastic items as indispensable, and certainly plastic usage is woven throughout modern everyday life. Many developing nations are also adopting the convenience, disposable-based attitudes that lead to plastic consumption. Population growth as well as the expansion of buying power among growing middle classes increases demand for a growing list of plastic consumer products. Experts have noted that the quantity of plastic produced in the first decade of the century rivals the quantity produced in the entire time since its inception in the 1950s.<sup>9</sup> This growing appetite is not predicted to abate unless governments intervene.<sup>10</sup>

Thus, a convergence has occurred, where at the very time we are racing to find a legal architecture to prevent future plastic pollution and technological tools to clean up pollution which has already occurred, the plastic industry is on a major expansion campaign in places like Asia and the U.S. to increase production of plastic, single use plastic in particular.<sup>11</sup> Focusing specifically on water quality, the dangers of unabated plastic pollution are readily addressed with the traditional tools contemplated by the Clean Water Act (CWA).

## II. PLASTIC WASTE AND WATER QUALITY

Although some have noted that the CWA does not specifically address plastic,<sup>12</sup> water quality is the exact focus of the statute and has been the main driver of plastic pollution concerns since they first captured modern attention. Ocean pollution was one of the canaries in the coalmine for the growing dangers from unchecked plastic production and use. Thus, for a time the fixation

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<sup>9</sup> Richard C. Thompson, et al., *Plastics, the Environment and Human Health: Current Consensus and Future Trends*, 364 PHIL. TRANS. R. SOC. 2153–2166 (2009).

<sup>10</sup> INTERNATIONAL ENERGY AGENCY, *THE FUTURE OF PETROCHEMICALS: TOWARDS MORE SUSTAINABLE PLASTICS AND FERTILIZERS* (OECD/IEA 2018).

<sup>11</sup> Katie Brigham, *How the Fossil Fuel Industry is Pushing Plastics on the World*, (Jan. 29, 2022), <https://www.cnn.com/2022/01/29/how-the-fossil-fuel-industry-is-pushing-plastics-on-the-world-.html>; Beth Gardiner, *The Plastics Pipeline: A Surge of New Production Is on the Way*, YALE ENV'T 360 (Dec. 19, 2019), <https://e360.yale.edu/features/the-plastics-pipeline-a-surge-of-new-production-is-on-the-way>.

<sup>12</sup> Jehan El-Jourbagy, et al., *Creating an Industrial Regulatory Framework to Reduce Plastics*, 18 BERKELEY BUS. L. J. 106 (2021)(noting that the CWA regulates water pollution).

on the ocean gyres aggregating plastic pollution sparked research interest into the potential harm plastic posed and legal solutions.<sup>13</sup> What is often lost on the public is that land-based pollution is the main source of ocean plastic pollution. It is not possible to address plastic pollution without focusing on the rivers polluted with plastic that carry pollution out to sea.

The top contributors of rivers that are polluting the oceans with plastic waste are in Asia. Moreover, plastic bottles top the list as one of the most frequently occurring waste item. But international considerations aside, it is important to emphasize that the U.S. is a major source of plastic waste. The per capita waste generation rates in the U.S. is what puts Americans in the running for generating the most plastic litter.<sup>14</sup> This is also despite the fact that many U.S. waste management systems are well developed, whereas systems in other countries are less robust.<sup>15</sup> While the international community must work toward a global agreement to tackle the problem,<sup>16</sup> it is imperative that the U.S. address local sources of pollution as one part of the effort and a critical component of preventing harm in the U.S.

Like other industrial production processes, plastic manufacturing has the potential to pollute air and water with chemical byproducts. When plastic is produced, common chemical additives such as lead, cadmium, zinc and copper can reach the environment.<sup>17</sup> After a boom in

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<sup>13</sup> Andre M. Santamaria, Esq., *The Pacific Garbage Patch: Everyone's Responsibility But Nobody's Problem*, 32 J. ENVTL. L. & LITG. 189 (2017)(assessing UNCLOS and London Dumping Convention applicability to address ocean plastic pollution); NOTE Jessica R. Coulter, *A Sea Change to Change the Sea: Stopping The Spread of the Pacific Garbage Patch with Small-Scale Environmental Legislation*, 51 WM. & MARY L. REV. 1959 (2010) (examining bans, taxes and other regulation potential to prevent continued plastic pollution).

<sup>14</sup> Kara Lavendar Law, et. al., *The United States' contribution of plastic waste to land and ocean*, vol. 6, no. 44 (Oct. 2020).

<sup>15</sup> Kara Lavendar Law, et. al., *The United States' contribution of plastic waste to land and ocean*, vol. 6, no. 44 (Oct. 2020).

<sup>16</sup> Stephanie B. Borelle, et al., *Why We Need an International agreement on Marine Plastic Pollution*, 114 Proceedings of the National Academy of Sciences of the U.S. 9994, 9995-9996 (2017)(noting the positive progress local and national actions make and explaining why cross-border solutions are required to address scale of problem).

<sup>17</sup> Hannah M. Diaz, *Plastic: Breaking Down the Unbreakable*, 19 FLA. COASTAL L. REV. 85, 88 (discussing the toxicity of plastics).

shale gas more attention is now focused on expanding plastic production in the U.S. particularly in the traditional petrochemical strongholds of Louisiana and along the Mississippi River.<sup>18</sup>

The building blocks of many virgin single-use plastic items called “nurdles” have been the source of local pollution even before they begin their useful timeframe within a plastic product.<sup>19</sup> Nurdles are particularly challenging because of their small size and density.<sup>20</sup> Thus, once nurdles escape into the environment they are easily dispersed by water and wind.<sup>21</sup>

There is also good reason to focus regulatory attention on the release of used plastic products to the environment. Plastic items are notoriously difficult to capture in waste systems. Plastic that is waste but does not end up in waste receptacles is known in the business as plastic “leakage”.<sup>22</sup> That “leakage” is in simple terms garbage pollution, with single-use products filling creeks and overwhelming sewer systems. Once in our environment, plastic persists for hundreds of years, but is often degraded over time into smaller and smaller pieces that are consumable by fish, wildlife, and humans and float through our rivers and streams into the oceans.

The assault of plastic debris on wildlife has been well-documented with marine wildlife starved by bellies full of plastic waste. Plastic waste causes physical damage to wildlife that may be trapped (entanglement), consume larger plastic products, or consume microplastics, and suffer the ill-effects of chemical by-products of plastic manufacturing. When plastic enters waterways it can absorb toxic chemicals in water and thereafter transfer toxic chemicals when ingested. These chemicals include polychlorinated biphenyls (“PCBs”), polycyclic aromatic hydrocarbons (“PAHs”), heavy metals and dioxins. All seven species of sea turtles have been recorded to have

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<sup>18</sup> Steven Mufson, *Huge Plastics Plant Faces Calls for Environmental Justice, Stiff Economic Headwinds*, WASHINGTON POST, available at <https://www.washingtonpost.com/climate-environment/2021/04/19/huge-plastics-plant-faces-calls-environmental-justice-stiff-economic-headwinds/>.

<sup>19</sup> Jullisa Trevino & Undark, *The Lost Nurdles Polluting Texas Beaches*, ATLANTIC (Jul. 5, 2019), <https://www.theatlantic.com/science/archive/2019/07/plastic-pellets-nurdles-pollute-oceans/593317/>.

<sup>20</sup> Therese M. Karlsson et al., *The Unaccountability Case of Plastic Pellet Pollution*, 129 MARINE POLLUTION BULL. 52 (2018) (discussing research on dispersion of pellets from industrial site).

<sup>21</sup> *Id.*

<sup>22</sup> Julien Boucher and Guillaume Billard, *The Challenges of Measuring Plastic Pollution*, Field Actions Science Reports [Online], Special Issue 19, 69 (2019).

ingested microplastics, leading to reproductive health and survival.<sup>23</sup> Indeed, scientists have documented over 2,200 species impacted by marine debris.<sup>24</sup> Microplastics persist in the environment and are thus available for ingestion for hundreds of years.<sup>25</sup>

Although much has been written about the impacts on wildlife, only more recently have the human health impacts of plastic been part of the growing call for action. Water quality is inherently connected to human health. Studies have shown that plastic, plastic chemical by-products, and forever chemicals like PFAS are indeed harming human health. As previously emphasized, ingested plastic particles can transfer chemicals and many of those chemicals are linked to human health impacts. A study conducted by the University of New Castle for the Worldwide Wildlife Foundation concluded that people eat an average of five grams—about a credit card—worth of plastic every week.<sup>26</sup> One of the most recent alarming discoveries concerns reproductive health impacts. Plastic exposure has been definitively linked to reduced sperm counts.<sup>27</sup> Overall, the evidence has become overwhelming that addressing the water-quality impacts of plastic are critical to societal well-being.

### III. PLASTIC ACTIVISM WITHIN THE CLEAN WATER ACT

The CWA is the primary federal statute designed to address water quality.<sup>28</sup> When the CWA was adopted it was well recognized that water pollution was harming the environment.<sup>29</sup> Fires burning on industrialized rivers provided a stark visual of the impact of pollution.<sup>30</sup> Today, plastic pollution is also visible, yet as a society we have been slow to respond.<sup>31</sup> It is a

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<sup>23</sup> NOI Hawaii plastic letter at pg. 2.

<sup>24</sup> *Id.*

<sup>25</sup> *Id.*

<sup>26</sup> DALBERG ADVISORS, NO PLASTIC IN NATURE: ASSESSING PLASTIC INGESTION FROM NATURE TO PEOPLE (2019).

<sup>27</sup> Hagai Levine et al., 23 HUMAN REPRODUCTION UPDATE 646-659 (2017). Stephanie D'Angelo & Rosaria Mecariello, *Microplastics: A Threat for Male Fertility*, 18 INT. J. ENV'T. RES. PUBLIC HEALTH 2392 (Mar. 2021).

<sup>28</sup> Clean Water Act 33 U.S.C. §§ 1251-1387.

<sup>29</sup> ROBIN CRAIG, ENVIRONMENTAL LAW IN CONTEXT: CASES AND MATERIALS 851 (4<sup>th</sup> ed. 2016).

<sup>30</sup> *Id.*

<sup>31</sup> Therese M. Karlsson et al., *The Unaccountability Case of Plastic Pellet Pollution*, 129 MARINE POLLUTION BULL. 52, 59 (2018)(noting that visible plastic pollution could be addressed by existing laws in Europe but have not been enforced).

misunderstanding of the CWA that it is primarily designed to address solid waste or other traditional forms of pollution. The CWA has clearly been effective at cleaning up water pollution since its inception<sup>32</sup> and in part it has met this challenge because Congress broadly defined its regulatory scope.

The CWA is designed to engage both the federal government and states in a cooperative federalism legal architecture to protect the nation's waters. The main components of the CWA include provisions that require a permit before a discharge of pollutants to waters of the U.S. Pollutant is broadly defined and includes garbage, as well as industrial, municipal, and agricultural waste discharged into water.<sup>33</sup> Thus, plastic and its sub-components are clearly readily captured in the definition of "pollutant" –but the structure of the act and its programs makes a difference in how pollutants are addressed.<sup>34</sup>

One of the major challenges for addressing water pollution from plastic is that it falls into both categories of point and non-point source pollution with federal authorities dominating in the former and states in the latter category. Identifiable "point-source" pollution has been robustly addressed by the CWA, while non-point sources remain a continued challenge with programs largely spearheaded by the states. Point-source regulation is addressed through the National Pollutant Discharge Elimination System (NPDES) permitting program that apply technology requirements at factories and other industrial sites which might discharge pollution from a pipe or ditch to receiving waters,<sup>35</sup> as well as regulation on the fill of wetlands to accomplish development.<sup>36</sup> Further, point-sources might be additionally constrained if pollution is inadequately addressed in a particular location. Pursuant to the CWA the total maximum daily

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<sup>32</sup> William L. Andreen, *Water Quality Today - Has the Clean Water Act Been a Success?*, 55 ALA. L. REV. 537, 542 (2004)(noting success in reducing industrial pollution and reversing wetland losses).

<sup>33</sup> CWA 502(6), 33 U.S.C. 1362(6). "The term 'pollutant' means dredged spoil, solid waste, incinerator residue, sewage, garbage, swage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water." *Id.*

<sup>34</sup> Stephanie F. Wood, *Move Over Diamonds—Plastics are Forever: How the Rise of Plastic Pollution in Water Can Be Regulated*, 29 VILL. ENVTL. L. J. 155, 158 (2018) (noting EPA regulates plastic as a pollutant).

<sup>35</sup> CWA §402, 33 U.S.C. §1342

<sup>36</sup> CWA §404, 33 U.S.C. §1344

loads (TMDL) of a pollutant on a water system are considered when waterbodies are not otherwise meeting water quality standards through the application of permits on regulated facilities.<sup>37</sup> But of course, not all pollution comes out of a pipe; stormwater runoff is a clear example of non-point source pollution that can significantly degrade water quality. Non-point source programs, addressed primarily by the states, are less well developed.<sup>38</sup> And finally, at the administrative level, for two decades we have recognized that inadequate enforcement prevents the CWA from meeting its full potential.<sup>39</sup>

The Office of Inspector General (OIG) for the U.S. EPA<sup>40</sup> undertook an audit in October 2019 to evaluate EPA's programs as they related to addressing plastic pollution.<sup>41</sup> The EPA OIG identified the main tools of the CWA that could bear on the issue in their report of May 11, 2021.<sup>42</sup> Accordingly, the OIG made clear the path to address plastic pollution can be found by employing specific water quality standards adapted to plastic pollution, increased control of point sources, better management of non-point sources, and with identification of impaired waters and the establishment of TMDLs for those waters.

The EPA has been slow to use its tools under the CWA to tackle the plastic crisis. The problem of plastic has only recently received attention despite EPA recognizing its potential to impair water quality. In 2012, the Center for Biological Diversity petitioned the EPA to specifically address water quality criteria for plastic pollution under the CWA.<sup>43</sup> The EPA declined

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<sup>37</sup> CWA §303d, 33 U.S.C. §1313d.

<sup>38</sup> Robert Adler, *Resilience, Restoration and Sustainability: Revisiting the Fundamental Principles of the Clean Water Act* (2010) (CWA ineffective regulation of non-point sources of pollution).

<sup>39</sup> Andreen, *supra* note \_\_ at 544.

<sup>40</sup> The OIG is an oversight division within the federal government intended to address illegal, ineffective or inefficient administrative practices. The EPA OIG is an independent office within the EPA, and explains its mission to assist EPA to protect the environment in a more efficient, cost-effective way <https://www.epa.gov/office-inspector-general>. OIG was created pursuant to the Office of Inspector General Act of 1978, and receives its funding from Congress.

<sup>41</sup> Notification of Audit: Effectiveness of Clean Water Act to Protect from Plastic Pollution, Project #OA&E-FY19-0086, Oct. 30, 2019. The project yielded two reports, #21-N-0052 (Jan 6, 2021) and 21-P-0130 (May 11, 2021).

<sup>42</sup> EPA OIG Report, EPA Helps States Reduce Trash, Including Plastic, In U.S. Waterways but Needs to Identify Obstacles and Develop Strategies for Further Progress (May 11, 2021).

<sup>43</sup> Ctr. For Biological Diversity, Petition for Water Quality Criteria for Plastic Pollution Under the Clean Water Act, 33 U.S.C. 1314 (2012) (hereinafter NGO petition).



to do so.<sup>44</sup> The following year, EPA launched the Trash Free Waters (TFW) program in 2013 as a voluntary partnership to address plastic pollution. The articulated purpose was to identify innovative ways to address trash pollution. EPA OIG specifically reviewed EPA's strategic planning to implement the TFW program, given it was the main program EPA was pursuing to addressing plastic pollution. Through the TFW program, EPA provides a range of funding and technical assistance to projects across the country under the main categories of source reduction, trash capture, research on aquatic trash, and finally, community engagement. Potentially more relevant are the tools and resources developed by EPA to illustrate best management practices, including a recent published Trash Stormwater compendium to provide municipal separate storm sewer system permit writers information useful for developing trash-related provisions. Industry representatives such as the American Chemical Council have participated in these voluntary efforts.

Given the anemic response to the growing plastic crisis, environmental organizations began to mobilize against plastic pollution in recent years.<sup>45</sup> Those organizations include ones specifically focused on ocean health like Surfrider, as well as organizations focused on wildlife such as the Center for Biological Diversity. Many environmental groups have sought to promote more sound environmental practices related to plastic, including lobbying for bans, restrictions on specific plastic products, or extended producer liability for plastic sold as consumer products.<sup>46</sup> Other recent efforts by citizens demand the government address plastic pollution pursuant to

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<sup>44</sup> A discussion of the failure to address plastics through the Clean Water Act and specifically in response to petition for water quality criteria can be found in Rachel Doughty and Marcus Eriksen, *The Case for a Ban on Microplastics in Cosmetics*, 27 TUL. ENVTL. L. J. 277, 284-85 (2014).

<sup>45</sup> See Crowell and Morning Alert, <https://www.crowell.com/NewsEvents/AlertsNewsletters/all/Citizen-Suit-Alert-Environmental-NGOs-Set-Their-Sights-on-Plastics> (Feb. 2020). See also Sarah Morath, Amanda Thompson and Samantha Hamilton, *Plastic Pollution Litigation*, NAT. RES. & ENVT. (Summer 2021) (explaining multiple lawsuits involving citizen plaintiffs and plastic pollution).

<sup>46</sup> For example, Congress adopted the Microbead-Free Waters Act in 2015 which amended the Federal Food, Drug, and Cosmetic Act and limited adding plastic microbeads into cosmetic products. Pub. L. No. 114-114, 129 Stat. 3129 (amending 21 U.S.C. 331). Although promoted by environmental groups and supported by the industry among other reasons, because of the easy replacement by other materials.

authorities under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), state laws, and the focus of this paper, the CWA.<sup>47</sup>

Citizen suits have long been an important component of CWA enforcement efforts. Pursuant to the CWA citizens may bring a lawsuit to enforce provisions of the statute.<sup>48</sup> Some of the most prominent actions against plastic pollution have occurred in response to citizen suits demanding industry be held accountable for plastic pollution.

#### *A. Nurdles Pollution South Carolina (CWA § 402)*

The Charleston Waterkeeper and South Carolina Coastal Conservation League sued Frontier Logistics in March of 2020.<sup>49</sup> Frontier Logistics is a plastic resin packaging company. Plaintiffs alleged that Frontier released nurdles into the environment. Among their alleged violations, Plaintiffs argued that Frontier was discharging pollutants into waters of the U.S. without a NPDES permit. The Waterkeeper had collected over 14,000 plastic pellets from the Cooper River, Charleston Harbor, and other Charleston area water areas.<sup>50</sup> The Plaintiffs had recovered many of the samples from immediately adjacent to Frontier's facility and the facility's fence line. At the facility Frontier received plastic pellets by rail and then packaged them in bulk for overseas shipment where they would be used to manufacture plastic goods. The case survived a motion for judgment on the pleadings in September 2020,<sup>51</sup> and the parties engaged in settlement negotiations. According to a press release by the Southern Environmental Law Center, Frontier agreed to pay \$1.2 million to settle the lawsuit.<sup>52</sup>

#### *B. Hawaii Water Quality Litigation (CWA § 303(d))*

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<sup>47</sup> Sarah Morath, Amanda Thompson and Samantha Hamilton, *Plastic Pollution Litigation*, NAT. RES. & ENVT. (Summer 2021) (discussing lawsuits under various environmental laws).

<sup>48</sup> 33 U.S.C. §1365.

<sup>49</sup> Final Complaint, *Charleston Waterkeeper South Carolina Coastal Conservation League v. Frontier Logistics, L.P.* Complaint for Declaratory and Injunctive Relief, Mar. 2020

<sup>50</sup> Final Complaint, *Charleston Waterkeeper v. Frontier Logistics, L.P.* at par. 2.

<sup>51</sup> *Charleston Waterkeeper v. Frontier Logistics*, No. 2:20-cv-1089-DCN, 2020 WL 5629717 (D.S.C. Sept. 21, 2020).

<sup>52</sup> Press Release, Southern Environmental Law Center, *Frontier Logistics agrees to \$1.2 million settlement in pellet-pollution lawsuit*, Mar. 3, 2021, available at <https://www.southernenvironment.org/news/frontier-logistics-agrees-to-1-2-million-settlement-in-pellet-pollution-lawsuit/>.

The Center for Biological Diversity and others brought a lawsuit involving microplastic concentrations in Hawaiian offshore waters. Pursuant to the cooperative federalism structure of the CWA, under section §303(d) States must identify waters that are failing to meet the State's water quality standards. The state must submit to the EPA a list of "impaired" waters, and EPA must either approve or disapprove the list. When waters are identified as "impaired" the State must identify the pollutant causing impairment and develop a plan to improve water quality.

CBD sued the EPA for violating 303(d) when it approved Hawaii's alleged deficient list of impaired waters. CBD alleged there was ample evidence of plastic pollution and that failure (both by the state of Hawaii and the EPA) to identify these waters as "impaired" prevented the State from developing a total maximum daily load (TMDL) plan to ensure that those waters would attain applicable water quality standards.

In response to the lawsuit EPA withdrew its approval and ordered a reevaluation of data on plastic pollution in Hawaiian waters. Following a new submission of listed waters by Hawaii, in July of 2020 EPA concluded that two waters were impaired due to plastic pollution and those waters were added to the "impaired waters" list and then incorporated into the state's water quality management plan.<sup>53</sup>

Although the plaintiffs were focused on seventeen potential waters, only two were ultimately listed as impaired. While it represents progress and states must re-visit these listings every two years, it illustrates how the government has been lukewarm to use this tool to target plastic pollution.

### *C. Siting Plastic Production in Louisiana (CWA §404)*

As previously discussed, the plastics industry is ramping up its production in North America and looking at sites in proximity to fracking operations such as in Ohio and Louisiana. The potential increase in production of plastics has led to local resistance. Formosa Plastics Group proposed to build a plastics facility in Louisiana along the Mississippi River, in St. James Parish.

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<sup>53</sup> *Center for Biological Diversity v. U.S. EPA*, No. 1:20-cv-00056.

To build its plastics facility Formosa needed a wetlands permit from the U.S. Army Corps of Engineers (ACOE) to comply with section § 404 of the CWA.<sup>54</sup> The proposed pollution burden of the project was high. The facility would double the amount of air pollution in St. James. In fact, numerous other potential sites were eliminated from consideration due to the limitations of the Clean Air Act.<sup>55</sup> Environmental groups including the Center for Biological Diversity, Louisiana Bucket Brigade, Rise St. James and Healthy Gulf sued in federal court claiming ACOE failed to adequately analyze potential pollution impacts on poor and minority communities. Formosa touted the benefits of its new facility, with a proposed 1200 new permanent jobs, at the facility which would be specifically to produce the components for new single use plastic products. Plaintiffs in the litigation to stop the siting of the facility emphasized more plastic produced contributes to the overall pollution of our oceans.<sup>56</sup> Furthermore, the affiliated groups began a public campaign to demand ACOE revoke the plant's permit which yielded over 5,500 letters in opposition to the facility.<sup>57</sup>

The lawsuit proved unsuccessful. The judge hearing the case rejected the environmental and grassroots organization's lawsuit, and dismissed the case. The ACOE is still considering the permit, and plaintiff's have pledged to sue again once the ACOE issues another final agency decision on the wetlands permit.

This grassroots opposition has also included political lobbying. Some notable Democrats are urging the Biden Administration to stop the project emphasizing environmental injustice.<sup>58</sup> On

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<sup>54</sup> The Clean Water Act prohibits discharges to the waters of the United States. Some wetlands are waters of the United States and the Army Corps of Engineers regulates when developers may fill in wetlands to construct buildings or other improvements through the Section 404 permitting program.

<sup>55</sup> The Clean Air Act regulates the introduction of additional facilities in areas that do not meet air quality standards. For areas that are already not in attainment of standards it is very difficult to introduce new facilities without offsetting pollution in the area and implementing expensive technology requirements.

<sup>56</sup> Center for Biological Diversity et al. complaint.

<sup>57</sup> Center for Biological Diversity Press Release, *Army Corps Receives More than 5,500 Letters Demanding it Revoke Formosa Plastics' Permit*, Feb. 10, 2021, available at: <https://biologicaldiversity.org/w/news/press-releases/army-corps-receives-more-than-5500-letters-demanding-it-revoke-formosa-plastics-permit-2021-02-10/>.

<sup>58</sup> Letter from Raul M. Grijalva, Committee on Natural Resources, Mar. 17, 2021, available at <https://naturalresources.house.gov/imo/media/doc/Grijalva%20McEachin%20Letter%20to%20Biden%20on%20Army%20Corps%20Permit%20for%20Formosa%20Plant%20March%2017%202021.pdf>; see also Steven Mufson, *Huge Plastics Plant Faces Calls for Environmental Justice, Stiff Economic Headwinds*, WASHINGTON POST, available

the other hand, Sen. Bill Cassidy of Louisiana objected to the resistance, because the plant would bring jobs and industry to Louisiana. Sen. Cassidy noted that if the U.S. does not site this plant here, it would be established in another country with more lax environmental standards. A concern for international pollution equity is worthy of consideration, but should not drive the decision to overburden St. James Parish with yet another petrochemical facility that would contribute to the existing pollution burden and exacerbate the plastic pollution problem.

Within the local press, newspaper articles discussing the lawsuit against Formosa in St. James Parish emphasized its comparative bad reputation internationally. For example, a Bloomberg Businessweek article entitled “A Plastics Giant that Pollutes Too Much for Taiwan is Turning to America” alleged that because Formosa faced a “crackdown in Taiwan it is trying to increase its operations in the US Gulf Coast.”<sup>59</sup> Now, the plan is create more plants like the Sunshine plan in Louisiana and in places like Ohio where close proximity to fracked gas will allow a surge in new single-use plastic despite the rising number of bans around the world on this product.<sup>60</sup> Plastic activism, like this case, can bring significant visibility to the rising problem of plastic pollution.

#### *D. Nurdles Pollution Formosa in Texas (CWA §402)*

Formosa Plastics previously settled an environmental contamination case in Texas where it polluted local water with nurdles.<sup>61</sup> The San Antonio Bay Estuarine Waterkeeper and Sylvia Diane Wilson sued Formosa Plastics for discharging plastic pellets. The litigation established liability for Formosa violating its permit because it discharged “floating solids or visible foam

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at <https://www.washingtonpost.com/climate-environment/2021/04/19/huge-plastics-plant-faces-calls-environmental-justice-stiff-economic-headwinds/>.

<sup>59</sup> Bruce Einhorn and Joe Carroll, *A Plastics Giant That Pollutes Too Much for Taiwan Is Turning to America*, (Dec. 12, 2019), <https://www.bloomberg.com/news/articles/2019-12-12/asian-company-that-pollutes-too-much-at-home-expands-in-america>.

<sup>60</sup> Polly Mosendz, *This Plastic Mega-Factory Is a \$10 Billion Bet on a Single-Use Future: A world leader in virgin resins comes to Louisiana's Cancer Alley with an unlimited vision for its products*, Bloomberg Green, (June 2020) <https://www.bloomberg.com/news/features/2020-06-08/formosa-plastics-new-factory-is-a-big-bet-on-a-single-use-future>.

<sup>61</sup> *Plastic Company Set to Pay \$50 Million Settlement in Water Pollution Suit Brought on by Texas Residents*, THE TEXAS TRIBUNE (Oct. 15, 2019), available at <https://www.texastribune.org/2019/10/15/formosa-plastics-pay-50-million-texas-clean-water-act-lawsuit/>.

other than trace amounts.” Thus, more than trace amounts of plastic triggered a violation of their Texas Pollutant Discharge Elimination System permit, which is the NPDES permitting program implemented by the State of Texas.

After the lawsuit was settled another dispute arose from the terms of the consent decree. The parties disputed whether plastic found outside Formosa’s outfall lease would be considered a new discharge.<sup>62</sup> Formosa contended that obligations were only triggered on a “new discharge” of plastics, but San Antonio Bay contended they were triggered on a “visual detection” of plastics regardless of when the plastics had been discharged from Formosa property.<sup>63</sup> In an unpublished decision the district court put the burden on Formosa to prove it was not a new discharge, but the Fifth Circuit Court reversed and remanded.<sup>64</sup> It construed the consent decree to resolve all liability, and this approach would subject Formosa to potential liability for past nurdle pollution.<sup>65</sup>

While this successful litigation illustrates how companies can be held accountable for plastic pollution under the CWA, the ongoing dispute highlights the inevitable challenge with plastic nurdle pollution. Once in the environment, these tiny items are incredibly difficult to track and eliminate. It was factually difficult to prove which nurdles simply persisted in the environment and which nurdles were newly introduced after the consent decree. Although future settlements can be drafted to avoid these interpretative disputes, the reality is that we must anticipate persistent cleanup challenges with nurdles.

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<sup>62</sup> *San Antonio Bay Estuarine Waterkeeper v. Formosa Plastics Corporation Texas*, 852 Fed. Appx. 816 (April 30, 2021).

<sup>63</sup> *Id.* at 819.

<sup>64</sup> *Id.*

<sup>65</sup> *Id.*

*E. Petro-Plastics Petitions (Administrative Procedures Act and CWA)*

As previously noted, the Center for Biological Diversity petitioned the EPA in 2012 specifically to address Water Quality Criteria for Plastic Pollution under the CWA.<sup>66</sup> Yet at that time the EPA declined to do so.<sup>67</sup>

Perhaps the most impressively inclusive citizen effort to address the lack of effective regulation of plastics came in the form of a petition to EPA by 280 Environmental, Public Health, Indigenous and Community Non-Governmental Organizations in July of 2019. This effort was again spearheaded by the Center for Biological Diversity. The petition demanded that EPA review and revise effluent limitations guidelines and standards applicable to the petroleum refining industrial category (Part 419) and organic chemicals, plastics, and synthetic fibers industrial categories (Part 414). The petitioners relied upon the Administrative Procedures Act and the Clean Water Act as the gravamen of their petition and right to demand EPA engage in required regulation.

The petition aptly described the extent of pollution experienced due to plastic production and emphasized the build-out planned for the immediate future in the U.S. Specifically, the petitioners demanded four actions:

1. **“Prohibit the discharge of plastic pellets and other plastic materials in industrial stormwater and wastewater;**
2. **Update Effluent Limitations Guidelines and Standards for new facilities to eliminate the discharge of toxic priority pollutants from wastewater and stormwater streams;**
3. **For existing facilities, put into effect Effluent Limitations Guidelines and Standards for pollutants of concern not currently regulated; and**

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<sup>66</sup> Ctr. For Biological Diversity, Petition for Water Quality Criteria for Plastic Pollution Under the Clean Water Act, 33 U.S.C. 1314 (2012) (hereinafter NGO petition).

<sup>67</sup> A discussion of the failure to address plastics through the Clean Water Act and specifically in response to petition for water quality criteria can be found in Rachel Doughty and Marcus Eriksen, *The Case for a Ban on Microplastics in Cosmetics*, 27 TUL. ENVTL. L. J. 277, 284-85 (2014).

4. Update current Effluent Limitations Guidelines and Standards for existing facilities to **reflect advances in detection and treatment technologies** since the last revisions decades ago.”<sup>68</sup>

The petition highlights how failure to update existing regulation has exacerbated the problem with plastic pollution. Even before we look to triggering new ways of regulating plastic pollution, it should be recognized that the petro-plastic facilities in the U.S. are already under-regulated due to overdue revisions that incorporate the state of knowledge and urgency to address the pollution burden of plastics.

The petition articulates an ambitious agenda to capture plastic pollution before it enters the environment.

“The Petitioners seek the following:

A zero plastic (in pellet, flake, powder, granule, or other form) discharge standard for all wastewater and stormwater streams;

A zero detectable discharge requirement for new sources of all pollutants in the wastewater and stormwater streams of new sources;

For existing sources, the promulgation of Effluent Limitations Guidelines and Standards for wastewater and stormwater pollutants of concern not currently regulated; and

For existing sources, an update of decades-old Effluent Limitations Guidelines and Standards to ensure they reflect the best available technology.”<sup>69</sup>

With emphasis on zero release, the petition highlights a painful reality. Closing the tap is one of the only effective solutions to address the particularly pernicious nature of plastic pollution. Unless we take ambitious action now, the legacy of plastic pollution will continue to defile our waterways and cause harm to fish, wildlife and humans dependent on them.

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<sup>68</sup> NGO Petition at pg. 2.

<sup>69</sup> NGO Petition at pg. 5.



#### IV. CONFRONTING THE LEADERSHIP DEFICIT AND ERODING RULE OF LAW

Plastic activism is gaining the attention of industry analysts and those providing legal services. A client alert from one law firm in 2020 advised that environmental NGOs had “set their sights on plastics,” and could be expected in the next few years to use litigation and other legal arguments to pressure policymakers to address plastics.<sup>70</sup> Various bills have in fact been discussed in Congress. Minor legislation like the elimination of plastic microbeads from cosmetics has passed at the federal level, and many states and localities are adopting bans on specific plastic products. However, to date no comprehensive reform has emerged. Thus, what is the import of this plastic activism—specifically within the CWA?

The import is specific to the heartbreaking lack of federal leadership either in Congress or by the EPA. Citizen activism is taking up space in a growing leadership void. Thus, plastic activism through the CWA has 1) brought necessary attention to the growing plastic crisis and 2) illustrated structural governance challenges for plastic regulation yet to be tackled. These specific challenges concern the shortcoming of cooperative-federalism and particularly so in economically depressed states, the plastics industry’s outsized influence in government decision-making and a re-tread of the same tactics used to evade effective climate regulation. Finally, the U.S. is experiencing eroded faith that government can fix complex problems under a continued assault on the rule of law. The erosion of trust exacerbates the power disparity wielded by the largest industries and re-asserts business solutions to safeguard public goods like water quality. The CWA affords an opportunity for citizens to drive more ambitious environmental protection.

##### *A. Attention to the Plastic Problem*

Plastic pollution is not just a marine litter or a trash problem. Industry has promoted this framing, in part, to avoid application of laws that would constrain production and perpetrate the recycling solution myth. Plastic activism using the CWA has illustrated how plastic is harmful well-beyond the floating trash piles defiling our ocean gyres. Plastic pollution is a problem in the

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<sup>70</sup> Crowell and Morning Alert, <https://www.crowell.com/NewsEvents/AlertsNewsletters/all/Citizen-Suit-Alert-Environmental-NGOs-Set-Their-Sights-on-Plastics> (Feb. 2020).

heart of Los Angeles, where California has adopted TMDLs to address trash in the Los Angeles River. Plastic pollution is a problem on Maryland's Anacostia River. Our rivers and watersheds feed plastic to the oceans, but environmental harms are not all just washed out to sea as some would have us believe. The activists in St. James Parish live with the burden every day. With their tenacious efforts to block expanded petrochemical facilities from locating in already overburdened cancer alley, these activists contrast environmental justice claims against the promises of economic benefit.

Congress has also failed to deliver meaningful legislation, potentially perpetuating the notion that plastic is largely a marine debris problem. The Save Our Seas Act adopted in December 2020 takes only modest actions.<sup>71</sup> The statute seeks to enhance domestic marine debris response capacity, international engagement on the issue, spur innovation, and improve domestic infrastructure to prevent marine debris by providing grant monies for waste management and mitigation studies. But by focusing on plastic pollution as a marine litter problem, the urgency of addressing all impacts from plastic waste is minimized.<sup>72</sup> This bi-partisan bill was supported by the plastics industry while many environmental groups did not support it.<sup>73</sup> As one critique explained, there is a reason the industry liked it – they didn't have to do anything under it, and it is a distraction.<sup>74</sup>

As part of a multi-pronged effort to address plastic pollution, we need to employ the tools at our disposal. The actions taken by plastic activists highlight proven tools in the toolbox to address water quality through the CWA.

#### *B. Structural Governance Problems for Combatting Plastic Pollution of Waterways*

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<sup>71</sup> S. 1982, 116<sup>th</sup> Congress (2019-2020), 64 Stat. 1267.

<sup>72</sup> Greta Moran, *The House Just Passed another "Save our Seas" Act. Here's Why it Won't.* The Intercept, (Oct. 7, 2020), <https://theintercept.com/2020/10/07/save-our-seas-bill-plastics-pollution/>.

<sup>73</sup> Opposition Letter to Save our Seas, Nov. 19, 2019, available at <https://www.breakfreefromplastic.org/2019/11/08/opposition-to-save-our-seas-2-0-senate-bills-1982-2260-2364-and-2372/>.

<sup>74</sup> Greta Moran, *The House Just Passed another "Save our Seas" Act. Here's Why it Won't.* The Intercept (Oct. 7, 2020), <https://theintercept.com/2020/10/07/save-our-seas-bill-plastics-pollution/>.

It is well understood that in a capitalist system business interests have a special place, as they are providing jobs and economic development which benefits society.<sup>75</sup> The administrative state has evolved over time while grappling with competing views on the operation and interplay of market forces, regulation, business interests and broader civic engagement which might lead to optimal policy and law-making for societal benefit. Through this evolution of increased voice and participation in rulemaking for citizen engagement, to a place where some criticize that policymakers listened too much to the beneficiaries of regulation, we now find ourselves in the space where business interests themselves have financial resources greater than many sovereign states. This is particularly relevant for the framing of a social or environmental problem, since problem framing is critical for yielding a workable, effective solution. Powerful interests, such as the plastic industries, are able to use resources to frame social problems and then promote policy solutions that abdicate responsibility. For plastic pollution this has meant the false insistence that recycling efforts would be successful<sup>76</sup> if a) individual consumers participated, and b) governments improved waste collection. In the statutory policy arena at the federal level, this has yielded minor statutory reforms such as eliminating microbeads from cosmetics and increasing focus on cleanup of ocean litter such as with the Save our Seas Act.

How agencies prioritize meeting their statutory missions is also a contested area. Scholars have debated the appropriate level of “slack” agencies are afforded to fulfill their mission.<sup>77</sup> For the EPA, it has been under-resourced and must simultaneously meet its mission while rationing

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<sup>75</sup> Sidney A. Shapiro, *Administrative Law After the Counter-Reformation: Restoring Faith in Pragmatic Government*, 48 U. Kan. L. Rev. 689, 693 (2000). Reformation in the 1970s when the CWA was adopted sought to address a concern that agencies were captured by business interests, and reformers were concerned that what gains are made through lawmaking could be lost in agencies who used their discretion to take it easy on business interests. *Id.* at 693-94. This brought the era of more citizen engagement in rulemaking and access to courts to enforce the laws. *Id.* at 694-96. In response, the counter-reformation pushed against this narrative, instead suggesting the government listened too much to the beneficiaries of regulation. *Id.* at 697. They emphasized the need for rationality in government—efforts like cost-benefit analysis and the like, and seeking to emphasize how government failure hurt both intended beneficiaries and business. *Id.* 698-707.

<sup>76</sup> Factually, recycling has never been actually possible to manage the quantity of plastic produced. Only a small percentage of plastic has ever been recycled and nearly all plastic ever produced still exists.

<sup>77</sup> David Markell, *“Slack” in the Administrative State and its Implications for Governance: The Issue of Accountability*, 84 OREGON L. REV. 1 (2005).

resources. Thus, prioritizing the problems it will address is necessary. Plastic activism is striking up against agency autonomy, at a time where the rule of law is being actively eroded to undermine the protection of public goods. If EPA and the states are not held accountable for using their authorities under the CWA then the plastics industry is allowed illegal levels of pollution.

Finally, cooperative federalism frameworks are particularly ill-suited to address certain environmental problems.<sup>78</sup> The CWA federalism structure falls apart when the issue of plastics is analyzed. Aptly described as a problem of “coordination, disruption, and lack of resiliency”<sup>79</sup> by Douglas Williams, the challenges are both structural to the CWA and yet also of this particular moment where the rule of law has been considerably eroded.

First, if a program depends on EPA to take the first step in a chain of ultimate regulation and EPA delays, then the issue takes longer to get resolved. This problem is emphasized when EPA declines to adopt water quality standards for plastic pollution or revise petro-chemical standards set by EPA which would be later implemented by the States. Furthermore, if states require more information from EPA due to the relative disparity of capacity including expertise, EPA’s role to provide this resource also fails to coordinate effectively with states. Although EPA launched the Trash Free Waters program to address some of the challenge with coordination and information sharing, this remains a challenge structurally woven into the CWA federalism.

Plastic activists are demanding that EPA use its expertise to implement the CWA toward cleaning up plastic pollution. While EPA’s Trash Free Waters programs have promoted progress, EPA has served as only a reluctant expert.<sup>80</sup> EPA’s focus on the problem could serve as a legitimating force catalyzing more powerful efforts by policy and lawmakers to address the rising burden of plastic pollution. The leadership deficit on the government’s response to the plastic crisis

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<sup>78</sup> Douglas R. Williams, *Toward Regional Governance in Environmental Law*, 46 AKRON L. REV. 1047 (2013).

<sup>79</sup> *Id.* at 1070.

<sup>80</sup> Sidney Shapiro, *Law, Expertise and Rulemaking Legitimacy: Revisiting the Reformation*, 49 ENVTL. L. 661, 667-78 (2019)(explaining how EPA develops and wields expertise pursuant to the CWA related to jurisdiction). Prof. Shapiro examines the role of expertise in legitimating agency decisions and emphasized the relevance for such agencies to identify policy options to implement statutory responsibilities. *Id.* at 678-80.

could be meaningfully addressed by more robust EPA actions – regardless of whether they come as part of an infrastructure, environmental justice, or climate focus.

Failure to enforce laws creates a feedback loop that continues to undermine and erode the rule of law. Plastic activism has demanded the CWA point-source provisions are sufficiently enforced while drawing attention to the need for under-developed areas of non-point source pollution to be enhanced. Scholars emphasize the growing sense of a need to advance an environmental rule of law within the sustainable development agenda.<sup>81</sup> The aggressive roll-back of fundamental environmental safeguards has been accomplished through strategically undermining leadership of key institutions, such as the EPA. It is false hope that industry will meaningfully address the global plastic crisis, and such faith is self-defeating. In assessing progress on plastic pollution to date the PEW Trust report states that “[i]ndustry has also made high-profile commitments, but these are primarily focused on post-consumer downstream solutions and often in low-leakage countries.”<sup>82</sup> It is in this very space that we need foundational environmental laws and the decades of agency expertise in implementing them focused on addressing a new problem impacting the health of our waters.

The plastic industry is the fossil fuel industry and are evading new plastic regulation much the same as they have climate change regulation, with a combination of denial, distraction, deflection, and ultimately resistance. Plastics are a billion-dollar industry and have a unique and out-sized influence over government actions. As one scholar explained, plastics is the eight largest industry domestically, thus “[b]ecause of its sheer size, the plastics industry is able to influence governmental decision-making at various levels.”<sup>83</sup>

Beyond influence of government’s decisions, the influence of public opinion is also key. The industry’s focus on recycling efforts was intended to distract the public from being concerned

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<sup>81</sup> Alexandria Dunn, *Advancing the Environmental Rule of Law: A Call For Measurement*, 21 SW. J. INT’L L. 283 (2015).

<sup>82</sup> PEW CHARITABLE TRUSTS, *BREAKING THE PLASTIC WAVE* 9 (2000).

<sup>83</sup> Dr. Kishore Dere, *Mobilizing World Public Opinion Against Use of Plastic Products*, 57 CAL. W. L. REV. 81, 85-86 (2020).

that their use of plastic was harmful to the environment.<sup>84</sup> This is a public image problem that the plastic industry has long known it needs to address to be successful in selling more consumer products.<sup>85</sup> Particularly for a product that is so woven into our society, its reign will not continue unless its innocuous image persists. Plastic activism is an important counter-narrative.

As previously discussed, the EPA OIG evaluated whether the CWA was being adequately utilized to address plastic pollution. The OIG highlighted multiple areas where improved CWA programs would address plastic pollution. Too few states are identifying their waters as impaired so as to trigger TMDL coverage for plastic pollution.<sup>86</sup> Insufficient municipal waste systems lead to more plastic pollution and need to be made more effective. Finally, OIG noted that there is insufficient data collection to support states in their efforts to tackle the problem. But the main takeaway through all of these recommendations is that the CWA can and should be used to address this growing threat to water quality.

Critical to understanding the purpose of OIG efforts was their acknowledgement that the audit was addressing a key goal of the CWA, i.e. “ensuring clean and safe water” and a key EPA management challenge, “overseeing states implementing EPA programs.”<sup>87</sup> Unfortunately, there are a number of reasons we could point to for the failure of EPA to address plastic adequately through their existing authorities.<sup>88</sup> Plastic activism was a necessary shot in the arm.

## V. CONCLUSION

Plastic pollution is not an intractable problem. A piecemeal solution which addresses the full life-cycle of plastics will significantly address the plastic burden and can curtail its expansion. The CWA’s provisions are directly applicable to addressing the production of plastic and discharge

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<sup>84</sup> Laura Sullivan, National Public Radio, Wasteland (discussing how plastic industry sought to advertise its way out of the problem by providing significant funding for recycling efforts they knew to be doomed to failure).

<sup>85</sup> *Id.*

<sup>86</sup> States such as California, Maryland, Hawaii and Alaska have taken this step. OIG Report (May 2021).

<sup>87</sup> OIG Report (May 11, 2021).

<sup>88</sup> Decline in resources is one potential reason, as is the theory that the Trump Administration EPA explicitly sought to orient the EPA toward industrial and industry-friendly interests. Lindsey Dillon, et al., *The Environmental Protection Agency in the Early Trump Administration: Prelude to Regulatory Capture*, 108 AJPH Perspectives, Editorial, S93 (2018)(exploring the theory of regulatory capture throughout EPA’s history from 1990 to the present supported by interviews of EPA employees).

of plastic production byproducts and waste to U.S. waterways. Citizen activism has illustrated the expectation that the government use these existing legal tools to address known threats.

As the CWA reaches the milestone of 50 years, the importance of protecting the rights of citizen activists cannot be overstated. Plastic activism under the CWA demonstrates the wisdom of citizen participation echoed through these five decades of its adoption. Like plastic itself, we may yet see that the CWA is both flexible and durable enough to tackle a novel pollution problem.

DRAFT